

The Economist

The West's growth problem

France's imploding nuclear industry

Covid babies: the long-term harm

Reading Sally Rooney in China

DECEMBER 17TH-23RD 2022

THE WINTER WAR

Ukraine's commanders assess their options





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The West's growth problem

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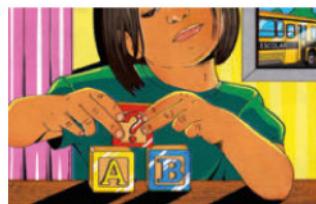
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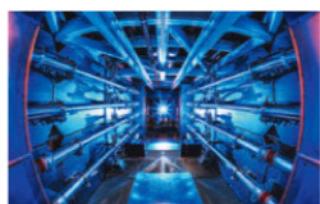
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 to take part in "a severe contest between intelligence, which presses forward, and an unworthy, timid ignorance obstructing our progress."

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The head of Ukraine's armed forces, General Valery Zaluzhny, predicted that Vladimir Putin would mount a **new offensive** as early as January, or more likely in the spring. Russian forces continued to attack Ukraine's civilian infrastructure with drones, many of which were shot down. America is reportedly close to approving the supply of Patriot anti-missile batteries to Kyiv. Ukrainian forces claimed to have struck a hotel in occupied Luhansk province which was being used as a headquarters by Wagner, a Russian mercenary group run by a friend of Mr Putin.

Cash for favours

The European Parliament removed Eva Kaili as a vice-president after she was accused of accepting bribes from Qatar. Ms Kaili, a Socialist MEP from Greece, denies wrongdoing, as does Qatar. Belgian authorities have charged four people with trousering €1.5m (\$1.6m) in exchange for influencing laws that could be beneficial to the Gulf country. Several hundred thousand euros were found in a bag in a hotel room.

A Turkish court sentenced the mayor of Istanbul, Ekrem Imamoglu, to two-and-a-half years in prison and banned him from politics for insulting public officials in 2019. (He called some election officials "fools".) Dissidents say the regime is trying to disqualify the most plausible challengers to Turkey's president, Recep Tayyip Erdogan, who faces an election next year.

Ghana reached a preliminary deal with the IMF for a \$3bn

bail-out. Before the loan can be released Ghana will have to convince its domestic and foreign creditors to, in effect, reduce the value of what it owes them by pausing interest payments and extending the time it has to repay them.

Cyril Ramaphosa, **South Africa's** president, survived a parliamentary vote that could have impeached him over allegations of misconduct. He was accused of failing to declare foreign currency, after \$580,000 in cash was stolen from a farm he owns.

The Arab world cheered **Morocco's footballers**, who reached the semi-finals of the World Cup in Qatar, the first African or Arab country to do so. They lost to France, which plays Argentina in the final on December 18th.

A state of emergency was declared in **Peru** after the impeachment of Pedro Castillo, a left-wing president who was ousted after he attempted a coup. Eight protesters have been killed. Dina Boluarte, Mr Castillo's constitutional successor, tried to quell the unrest by announcing that a general election would be held in December 2023. Left-wing governments in Argentina, Bolivia, Colombia and Mexico expressed support for Mr Castillo.

Protesters who refuse to accept Jair Bolsonaro's defeat in **Brazil's** presidential election attacked federal police headquarters and burned cars and buses in the capital, Brasília. The violence broke out after the supreme electoral court certified the victory of Luiz Inácio Lula da Silva. Bolsonaristas have been camping outside army barracks in various cities, seeking military intervention, ever since Mr Bolsonaro lost the election.

New Zealand passed a law that bans anyone born after 2008 from buying cigarettes. The minimum age covered by the ban will steadily increase until cigarettes are outlawed.

A provisional tally of votes in **Fiji's** election suggested that Frank Bainimarama will return to office as prime minister. The final result will be known in a few days. Mr Bainimarama first came to power after instigating a coup in 2006.

Troops from **China** and **India** clashed along part of their countries' disputed border. This time the mêlée occurred in the Tawang sector of India's north-east Arunachal Pradesh state, which borders Tibet. No one was killed. In 2020 a skirmish in the Galwan valley, located far to the west, claimed the lives of 20 Indian and four Chinese soldiers.

Covid-19 continued to surge across China. Many locals shared their stories of infection online. The government stopped counting most cases. Experts think this wave will peak in January. Some fear the country's weak health system will be overwhelmed, and that many people will die.

Nurses in Britain (apart from Scotland) went on strike. Emergency and essential services were not affected.

Rishi Sunak, **Britain's** prime minister, promised more resources to clear a backlog of applications for asylum, especially for those made by Albanians, who make up a large share of the migrants crossing from France illegally in small boats. An extra 400 staff will process claims to stay in Britain; new guidance to case-workers will make it clear that Albania is a safe country.

The day after Mr Sunak's announcement at least four migrants died trying to cross the **English Channel**. Almost 45,000 have made the journey this year.

A group of 7,000 irregular **migrants** crossed from Mexico into Texas. Experts predict a spike in such crossings into the United States now that Title 42 measures, which allowed the quick removal of illegal migrants at the border

during the pandemic, are about to end. Many of those crossing the Rio Grande into Texas are Nicaraguans and Venezuelans.

Joe Biden signed a federal law to reaffirm that **gay marriage** is legal, after Congress passed it with some Republican support. This has no practical effect, since the Supreme Court legalised gay marriage throughout the United States seven years ago. It was passed to prevent a hypothetical future Supreme Court ruling returning the matter to the states. A large majority of Americans support keeping same-sex unions legal.

America's National Ignition Facility carried out a **fusion experiment** that yielded more energy than was put in by the lasers that triggered the reaction. Headlines about limitless clean energy followed. But, alas, the calculations failed to include the rest of the energy required to run the apparatus, which was considerable.

Over the Moon



NASA's **Orion capsule** splashed back down to Earth in the Pacific Ocean after its maiden voyage around the Moon. The mission, the first in the Artemis programme that will eventually return humans to the Moon, saw the Orion come within 80 miles (129km) of the lunar surface. At its farthest the capsule was 270,000 miles from Earth, breaking the record for the distance flown by a spacecraft designed to carry people, which was previously set during the Apollo 13 mission in 1970.



America's Justice Department charged **Sam Bankman-Fried** with fraud, money-laundering and violating campaign-finance laws in relation to the collapse of FTX, a crypto exchange. He was arrested in the Bahamas, where FTX is based. The department said that FTX's "phenomenal downfall" was not a case of mismanagement, but instead one "of intentional fraud, plain and simple". It alleges that Mr Bankman-Fried misappropriated FTX's money for personal use, to repay debts owed by his hedge fund, Alameda, and to give millions to political candidates. It is a spectacular fall from grace for a man who had been lauded for his "effective altruism".

Meanwhile the pressure increased on **Binance**, a rival crypto exchange to FTX, following a run of withdrawals from its business. Nansen, a blockchain analytics firm, said that Binance had seen net outflows of as much as \$3bn over 24 hours.

It was a busy week for the Justice Department, which also announced that **Danske Bank** had pleaded guilty to defrauding American banks by lying about its "deficient anti-money laundering systems". Danske, Denmark's largest bank, processed suspect transactions worth \$160bn from its branch in Estonia through American banks. Much of the money came from Russia. Danske is to pay \$2bn in fines.

The **Federal Reserve** raised its benchmark interest rate by half a percentage point, taking it to a target range of 4.25% to 4.5%. The half-point increase follows four consecutive rises of three-quarters of a percent-

age point. The central bank has eased the pace of tightening as it balances the need to tame soaring consumer prices with ensuring that the economy is not plunged into a recession.

November's **inflation** figure helped steer the Fed's decision. The annual rate, as measured by consumer prices, dropped to 7.1% from 7.7% in October, the lowest it has been all year, but still well above the average of 2.1% in the three years before covid-19. In Britain inflation fell to 10.7%, though the cost of alcohol in pubs and restaurants increased, just in time for Christmas.

The Securities and Exchange Commission voted to continue with plans that would introduce the biggest shake-up to America's **stockmarket rules** in a generation. The most contentious proposal would compel brokers to send orders for buying and selling shares from small investors to an auction, an idea that is being resisted by Robinhood and other brokerages that focus on retail investors. The plans are open to public comment until at least March 31st.

Big tech pushed further into the world of high finance when **Microsoft** and the London

Stock Exchange announced a strategic partnership in which the software giant will provide the bourse with cloud-computing services and take a 4% stake in the LSE and a seat on its board. The LSE stressed that the arrangement was about more than "simply lifting" assets to the cloud, and would see Microsoft help it build products and access markets.

Game over?

Microsoft's deal was some good news for the company, following the decision of the Federal Trade Commission to try to block its \$75bn acquisition of **Activision Blizzard**. The FTC thinks that Microsoft's Xbox would stifle competition among rival video consoles for Activision's blockbuster games, such as "Call of Duty".

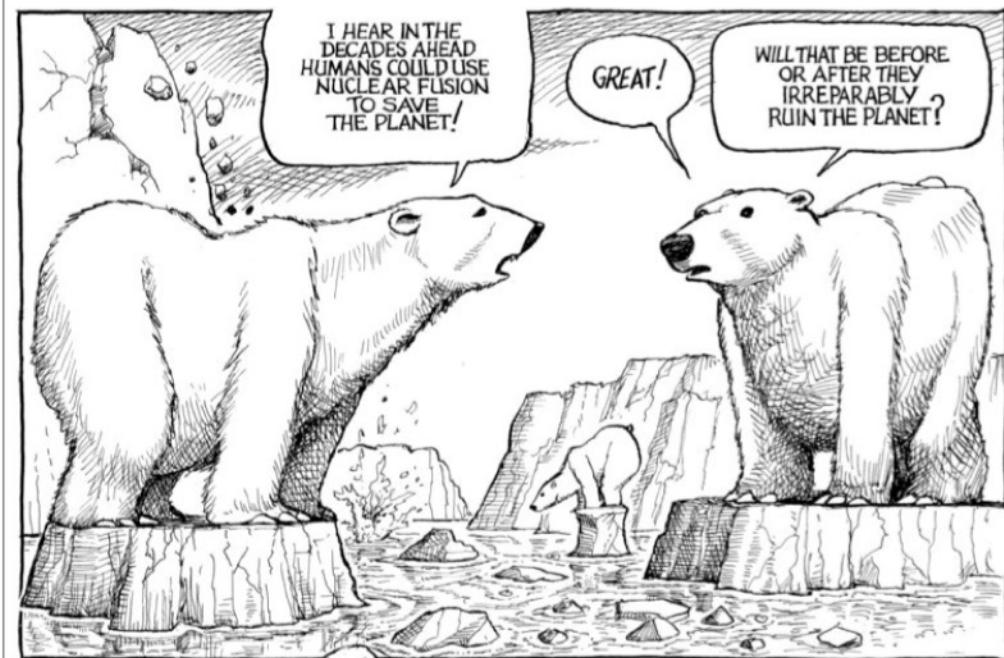
A bipartisan group of politicians in America's Congress introduced a bill that would ban **TikTok** from the United States because of concerns that the app's Chinese owner, Byte-Dance, leaks user data to the Chinese government. The Biden administration is currently looking at alternative ways to allow TikTok to operate. Donald Trump tried in effect to ban TikTok, but was rebuffed by the courts.

Amgen, a biotech company, struck a deal to buy **Horizon Therapeutics** for \$28.3bn. Horizon's assets include treatments for rare diseases and inflammatory conditions such as gout, which is associated with rising obesity levels.

The member states of the EU reached agreement on imposing a tax on the carbon-dioxide emissions of imported goods, such as steel, cement and fertiliser, the world's first **carbon border adjustment mechanism**. Supporters say the scheme levels the playing field for European firms that are subject to EU emissions levies. But it has angered the developing world, which emits relatively high levels of greenhouse gases.

Animal instincts

During the pandemic over a dozen apps offering speedy delivery of groceries were launched in America and Europe. The industry is now consolidating, the latest example being the takeover of **Gorillas** by **Getir**. Gorillas, based in Germany, now operates in just a handful of countries. Getir, a Turkish startup, has a wider reach, and with its acquisition of Gorillas it is now truly lord of the jungle.



The winter war

Ukraine's chiefs warn of a looming Russian offensive and the critical months that lie ahead

RUSSIA IS MASSING men and arms for a new offensive. As soon as January, but more likely in the spring, it could launch a big attack from Donbas in the east, from the south or even from Belarus, a puppet state in the north. Russian troops will aim to drive back Ukrainian forces and could even stage a second attempt to take Kyiv, the capital.

Those are not our words, but the assessment of the head of Ukraine's armed forces, General Valery Zaluzhny. In an unprecedented series of briefings within the past fortnight the general, along with Volodymyr Zelensky, Ukraine's president, and General Oleksandr Syrsky, the head of its ground forces, warned us of the critical few months ahead. "The Russians are preparing some 200,000 fresh troops," General Zaluzhny told us. "I have no doubt they will have another go at Kyiv." Western sources say that Russia's commander, General Sergey Surovikin, has always seen this as a multi-year conflict (see Briefing).

This is not the view outside Ukraine. In the freezing mud, the conflict is thought to be deadlocked. There has been almost no movement for a month along the 1,000km or so of battlefield. Admiral Sir Tony Radakin, Britain's most senior officer, this week said that, right now, a shortage of artillery shells means Russia's scope for ground operations is "rapidly diminishing".

The appearance of stalemate is feeding new interest in peace talks. France's president, Emmanuel Macron, America's Joe Biden and (for very different reasons) the Russian aggressor, Vladimir Putin, have all in recent days talked about a diplomatic solution. Many in the West, appalled at the suffering, and, more selfishly, wearying of high energy prices, would welcome this. But Ukraine's commanders argue that it should not happen too soon, and they are right.

If Ukraine sought to stop the war today, freezing the battle lines where they are, the Russians could prepare better for the next attack. Mr Putin's generals have been pushing on with their programme of training and deploying newly mobilised troops and retooling industry to help the war effort—including, say Ukrainian commanders, by producing artillery shells. A freeze would repeat the mistake of the three years leading up to the invasion on February 24th 2022. In that time Mr Putin talked endlessly to the West's leaders, who indulged him, while all the while readying his armies for invasion.

The West's highest responsibility is to ensure that any Russian counter-offensive fails. For that, the supply of weapons must increase, and fast. Ukraine has used HIMARS, a rocket system the Americans have been supplying since June, to devastating effect against Russian ammunition dumps and command-and-control centres, allowing the rapid advance first in the north-east and then in the south. But Russia has moved many such targets back out of range of Ukraine's HIMARS batteries. So Ukraine needs more powerful ordnance, like the ATACMS missiles that could hit targets at least twice as far away. And it needs lots of them, as well as regular ammunition and artillery of all kinds; plus tanks and helicopters and much else, too.

Ukraine also needs help repelling Russian attacks on civilian

electrical, water and heating systems. These are aimed at wrecking Ukraine's economy (see Europe section) as well as battering the morale of Ukrainian troops on the front line, who are worried about their families back home.

As General Zaluzhny explains, Ukraine is running low on stocks of ammunition for its existing defence systems (mostly Soviet-era anti-aircraft kit being repurposed for use against missiles). It also needs many more, and better, anti-missile defences; the American Patriots that now seem to be forthcoming will be a huge boost, but training soldiers to use them takes time and they should have been supplied months ago.

If Ukraine is to emerge from this conflict as a thriving democracy, even air defence will not be enough: it also needs to recapture more territory. Although Russian forces have seized only a small slice of Ukraine's Black Sea coast this year, that puts them close enough to all of the big Ukrainian-held ports to menace shipping. Apart from limited amounts of grain under a UN deal, Ukraine's exports are still largely cut off.

Taking more territory also helps avoid a frozen conflict by showing that Mr Putin risks losing even the gains he has made. With today's frontier, Russia has a land-bridge that can resupply annexed Crimea and threaten the south of the country. By contrast, if Ukraine cuts the land-bridge and retakes the northern

coast of the Sea of Azov, it can negotiate from strength, putting even Crimea within artillery range. That way it can discredit the idea in Russia that Mr Putin can prevail simply by launching another attack in a few years' time.

Ukraine is still willing to make the sacrifices that fighting on demands. Mr Zelensky told us that "95 or 96% of people want to de-occupy all their territory", recapturing everything that

Russia seized in 2014 as well as what it has taken this year. He argues that Western promises of security guarantees are a poor substitute for his country's territorial integrity. After all, similar guarantees offered to Ukraine by America and Britain in 1994, when it surrendered the Soviet nuclear weapons on its soil, proved almost worthless 20 years later.

Ukraine's backers will have a slightly different point of view. They believe taking back everything is a maximalist aim that Ukraine will struggle to achieve, not least because it will in places mean freeing people who do not want to be liberated. Mr Putin's nuclear threats are a reason to ensure that Russia is not victorious, but also a reason to require that Ukraine does not appear to threaten Russia's recognised borders. Ukraine also needs to understand that the flow of military and financial aid depends on it avoiding internal rivalries that may be emerging, and on ensuring that it curbs long-standing corruption.

That said, the entire world—including Russia—would benefit from the failure of the revanchist idea that the old Russian empire can be recreated. If Ukraine is adequately supported, its commanders can push a long way towards the coast, and possibly take back most of what Mr Putin has seized since February. The more territory that Ukraine can recover the greater the chances of its lasting success. ■



Covid-19 in China

Little steps, many lives

What the state can still do to avoid an enormous death toll

TESTING STATIONS are being removed from city streets. The enforcers of “zero-covid” are nowhere to be found. In China’s battle against covid-19, the state has disappeared from the front lines. For nearly three years President Xi Jinping tried to contain the virus, calling his efforts a “people’s war”. Now he has surrendered and the people must live with the enemy.

Mr Xi is not the first leader to conclude that such a fight was unwinnable. But before ditching their zero-covid policies, other countries first took pains to administer vaccines, stockpile anti-viral drugs and draw up treatment guidelines. China had ample time to do all of that. Yet more than two years after the first vaccine proved effective, the country remains ill-prepared. That has made opening up much more dangerous than it ought to be.

How dangerous? In this week’s China section we publish our model of how the epidemic might play out. It comes with essential caveats. Modelling an epidemic is difficult. Modelling one in China, where the data are often unreliable, is even harder. We take into account variables such as vaccination rates, the effectiveness of Chinese jabs, the lethality of covid for different age groups and the number of intensive-care beds. In a worst case, if covid spreads freely and many people cannot get care, we estimate that in the coming months 1.5m Chinese people will die from the virus.

Although that is a lower share of the population than in many rich countries, it is still a criticism of the government’s poor preparations. It is also a call to action. A vaccination drive will take months. The government has waited too long to build and staff new ICUs. But even if the state will not impose lockdowns while it prepares, it can mitigate the number of deaths.

It should start by protecting the health system. A wave of covid is breaking over China. Our model sees this peaking in January. By that time hospitals risk being overwhelmed. Beds and staff are a precious resource to be husbanded. That means keep-

ing people who are not seriously ill away from hospitals. To that end, the state could help drug companies restock pharmacies that run out of such things as lateral-flow tests and paracetamol. Medical staff should be vaccinated first and they must be given the proper gear to minimise the risk of infection.

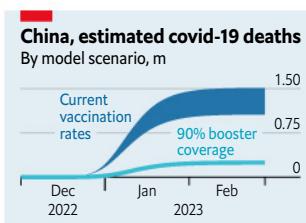
A second step is to ensure cheap and plentiful supplies of covid drugs. Dexamethasone, a low-priced steroid, has been shown to reduce deaths among the most severely ill patients. Antivirals, such as Paxlovid, help keep those most at risk out of hospital. These drugs have become part of the toolkit doctors around the world are using to fight the virus. They could save many thousands of lives in China. Only the government knows if it has enough of them to go around. If not, it should start stocking

up. Foreign governments would surely send supplies if China asked. President Xi Jinping should not let his pride imperil China’s people, as he has done by shunning more efficacious Western vaccines.

China’s vaccines still work. So the third priority is to get them into people’s arms. It may be too late for many in this wave, but there will be others. Less than half of those over 80 years old

have had three shots, the number needed for decent protection against severe disease and death. Yet some of the elderly have gone to the clinic for a jab only to be turned away for lack of supplies. Until recently, some vaccine factories were sitting idle. Vast quantities will be needed. Six-monthly booster shots ought to become a normal part of life for older Chinese.

As the state has failed to do its job, people are helping themselves. Masks are ubiquitous in many cities and more people are working from home. Restaurants and cinemas may be open, but in cities such as Beijing they remain largely empty. All this will help slow the growth of this covid wave and ease the pressure on hospitals. But the government must also act. In a country the size of China, even small steps could save many lives. ■



The global economy

Sapped of vitality

Why are the rich world’s politicians giving up on economic growth?

THE PROSPECT of recession may loom over the global economy today, but the rich world’s difficulties over growth are graver still. The long-run rate of growth has dwindled alarmingly, contributing to problems including stagnant living standards and fulminating populists. Between 1980 and 2000, GDP per person grew at an annual rate of 2.25% on average. Since then the pace of growth has sunk to about 1.1%.

Although much of the slowdown reflects immutable forces such as ageing, some of it can be reversed. The problem is that, as we write this week (see Finance & economics section), reviving growth has slid perilously down politicians’ to-do lists.

Their election manifestos are less focused on growth than before, and their appetite for reform has vanished.

The latter half of the 20th century was a golden age for growth. After the second world war, a baby boom produced a cohort of workers who were better educated than any previous generation and who boosted average productivity as they gained experience. In the 1970s and 1980s women in many rich countries flocked into the workforce. The lowering of trade barriers and the integration of Asia into the world economy later led to much more efficient production. Life got better. In 1950 nearly a third of American households were without flush toilets. By ▶

► 2000 most of them could boast of owning at least two cars.

Many of those growth-boosting trends have since stalled or gone into reverse. The skills of the labour force have stopped improving as fast. Ever more workers are retiring, women's labour-force participation has flattened off and little more is to be gained by expanding basic education. As consumers have become richer, they have spent more of their income on services, for which productivity gains are harder to come by. Sectors like transport, education and construction look much as they did two decades ago. Others, such as university education, housing and health care, are lumbered with red tape and rent-seeking.

Ageing has not just hurt growth directly, it has also made electorates less bothered about GDP. Growth most benefits workers with a career ahead of them, not pensioners on fixed incomes. Our analysis of political manifestos shows that the anti-growth sentiment they contain has surged by about 60% since the 1980s. Welfare states have become focused on providing the elderly with pensions and health care rather than investing in growth-boosting infrastructure or the development of young children. Support for growth-enhancing reforms has withered.

Moreover, even when politicians say they want growth, they act as if they don't. The twin problems of structural change and political decay are especially apparent in Britain, which since 2007 has managed annual growth in GDP per person averaging just 0.4% (see Britain section). Its failure to build enough houses in its prosperous south-east has hampered productivity, and its exit from the European Union has damaged trade and scared off investment. In September Liz Truss became prime minister by



promising to boost growth with deficit-financed tax cuts, but succeeded only in sparking a financial crisis.

Ms Truss fits a broader pattern of failure. President Donald Trump promised 4% annual growth but hindered long-term prosperity by undermining the global trading system. America's government introduced 12,000 new regulations last year alone. Today's leaders are the most statist in many decades, and seem to believe that industrial policy, protectionism and bail-outs are the route to economic success. That is partly because of a misguided belief that liberal capitalism or free trade is to blame for the growth slowdown. Sometimes this belief is exacerbated by the fallacy that growth cannot be green.

In fact, demographic decline means that liberal, growth-boosting reforms are more vital than ever. These will not restore the heady rates of the late 20th century. But embracing free trade, loosening building rules, reforming immigration regimes and making tax systems friendly to business investment may add half a percentage point or so to annual per-person growth. That will not put voters in raptures, but today's growth is so low that every bit of progress matters—and in time will add up to much greater economic strength.

For the time being the West is being made to look good by autocratic China and Russia, which have both inflicted deep economic wounds on themselves. Yet unless they embrace growth, rich democracies will see their economic vitality ebb away and will become weaker on the world stage. Once you start thinking about growth, wrote Robert Lucas, a Nobel-prize-winning economist, "it is hard to think about anything else". If only governments would take that first step. ■

Nuclear power

The French exception

As the world turns back to nuclear power, it should heed the lessons from France

IT WAS BRANDED the most expensive way to boil water. Not so long ago, many dismissed nuclear power as pricey and doomed, at least in the West. Yet today nuclear energy is crucial once again. In the short run, Europe's ability to get through the winter energy crunch depends in part on whether France's ageing fleet of nuclear reactors can be cranked up to operate nearer full capacity. And in the long run, investment and innovation in nuclear power appear to be part of the answer to both Vladimir Putin's energy war and climate change: an almost carbon-free way to generate a steady and controllable flow of electricity to work alongside intermittent solar and wind generation.

As a result, countries around the world are once again embracing nuclear power, which today accounts for 25% of electricity generation in the European Union, and 10% around the world. Money is flooding into research and startups, although excitement this week over the results of a nuclear-fusion experiment at America's National Ignition Facility has got far ahead of itself—years' or decades' more work will be needed to discover whether the concept is viable (see Science & technology section). Despite the industry's record of cost overruns, Britain and France are keen to build large new conventional plants and Germany has postponed closing its reactors this year. India's state-

controlled power firm, NTPC, is planning lots of new nuclear capacity, according to Bloomberg. Nuclear generation will have to double by 2050 if the world is to reach net-zero emissions, according to the International Energy Agency.

As countries choose whether to bet on nuclear power, they ought to look at France, the West's leader (see Business section). After the first oil shock in 1973, it built enough reactors to supply about 70% of its power. Yet its experience has been hard. Maintenance problems mean that the fleet has been operating below its theoretical capacity this year, contributing to a Europe-wide spike in power prices. The main company, EDF, has accumulated a staggering \$350bn of liabilities, is expected to make \$19bn of pre-tax losses this year and is about to be fully nationalised. And the supply of new reactors has stalled. Of the six built since 1999 that are of the latest French design—five abroad and one at home—only the two built in China are generating electricity.

France holds lessons for nuclear planners elsewhere. One is the case for continuous investment and innovation. At first France built too many reactors too quickly and then not enough. Many now need maintenance all at once. The lull in orders led to a loss of skills and expertise, as employees retired or left. Costs ballooned and innovation flagged. To fix its plants today, EDF is

flying in welders from America and Canada. Only now has France opted for a well-spaced programme of three pairs of reactors to be built no more than four years apart.

Another lesson lies in how France's planners rammed through their ambitious nuclear programme without securing broad public support. The nuclear industry became a state within a state, with an elite corps of engineers who were not given to self-doubt or subject to enough scrutiny. That lack of support eventually led to inconsistent policy as, under pressure from the greens, the socialists reversed the expansion. For an industry charged with creating giant assets that last for at least 50 years, such volatility can be crippling.

A final lesson is about diversification. France's obsession with nuclear power led it to downplay renewables. Today solar and wind drive 9% of its power supply, compared with 25% in Britain. In most countries this logic of diversification works in

the other direction. By boosting nuclear-power generation, alongside the growth in renewables that is already under way, they could achieve a more balanced, low-carbon energy mix. Integrating national energy markets with those of neighbouring countries—something France has been wary of—can help increase resilience, too.

Chain reaction

The loss of Western competence helps explain a loss of market share. Of the 31 reactors that started construction since 2017, 27 used Chinese or Russian designs. Now, amid an energy crunch, opinion on nuclear power is shifting. In France fully two-thirds of people now think there is a nuclear future. French elites have had an emotional, almost ideological attachment to nuclear energy, but nuclear and renewables are not enemies, as some in Paris seem to believe. The world needs both. ■

South Africa

How to save the Rainbow Nation

The ruling party is unrefordable. The country needs a coalition of the clean

No South African embodies the country's modern history like Cyril Ramaphosa. As a trade-union boss in the 1980s he helped lead the struggle against apartheid. In the 1990s, as an aide to Nelson Mandela, he negotiated the shift to multiracial democracy. After liberation, Mr Ramaphosa grew fabulously wealthy, as the new ruling party, the African National Congress (ANC), pressed white-owned businesses to transfer equity to black capitalists. "Black economic empowerment", as it was called, was legal but enriched only a well-connected few. In the 2010s Mr Ramaphosa re-entered politics, serving the disastrous Jacob Zuma as deputy president. He became president in 2018, vowing to overhaul the economy and to clean up the corruption Mr Zuma had left behind. He has failed to do so. That failure has inflicted grave harm on South Africa, and will probably lead to the party of Mandela losing its hegemony.

On December 16th the ANC will begin its quinquennial conference, where Mr Ramaphosa is expected to be re-elected as party leader. If so, he will probably head the party in a general election in 2024. His chances have been dented by a scandal—part John le Carré, part "Carry On"—involving his handling of at least \$580,000 from what he says was the sale of buf-faloes to a Sudanese businessman and what his opponents say was something fishier. On December 13th he survived a parliamentary vote that would have impeached him.

Yet there is little for the ANC to celebrate. Mr Ramaphosa's career is simply the latest sign that the party is no longer capable of governing (see Middle East & Africa section). Those, including *The Economist*, who once supported the president, overestimated both his zeal and ability to drive change. Mr Ramaphosa has notched up some successes, such as revamping the national tax and prosecution authorities, which were debauched under Mr Zuma, but his graft-ridden party has blocked deeper reforms.

For most of the past three decades the ANC, as the party of liberation, won elections easily. With unrivalled power and few internal checks, it became the natural home of any South African

who sought office in order to abuse it. Under Mr Zuma, the losers elbowed aside those who took governing seriously, and Mr Ramaphosa has failed to wrest back control. This has consequences. The murder rate is rising; real GDP per person is lower than it was 14 years ago; there have been more power cuts this year than any on record; water gushes from broken pipes; nearly half of black South Africans who want a job cannot find one.

South Africans have noticed the rot and started to blame the ruling party. Pollsters expect the ANC to win less than 50% of the vote in 2024, which under the country's system of proportional representation would mean the end of its majority in parliament. A new era of coalition politics is coming.

In an optimistic scenario, the cleaner, more moderate elements within the ANC would find a way to team up with the liberal opposition, the Democratic Alliance, which has done a fair job of governing South Africa's second-richest province, the Western Cape. The nightmare alternative is that extremists and crooks take charge. If the pro-corruption wing of the ANC were to form a ruling coalition with the Economic Freedom Fighters, a black populist party that wants to nationalise everything, investors would flee in terror.

South Africa's previous transitions—the scrapping of apartheid and the ousting of President Zuma—were helped along by pressure from churches, NGOs, think-tanks and businesses. They should speak out again, explaining the urgency of reform, compromise and the restoration of the rule of law. Mr Ramaphosa should set an example by telling the truth about "farmgate". He should also use the rest of his term to accelerate the reforms that he has slowly begun, such as adding renewable-energy capacity to the dilapidated electricity system.

The end of apartheid, often depicted as a miracle, was in fact the culmination of years of work by individuals, including Mr Ramaphosa, and organisations, including the ANC, who thought that South Africa deserved better. Once again, the Rainbow Nation needs leadership. The search for it should start now. ■



Supporting the ECJ's ruling

Your article on the European Court of Justice's judgment on public registers of beneficial ownership, a decision you suggest will make it harder to track dirty money, missed a number of crucial points ("Laundry softener", December 3rd). The registers encompass all firms in the European Union, thus catching millions of ordinary businesses (for example, a hairdressing salon or bakery) as well as companies with sensitive activities (a business that supplies goods to Ukraine, say, or medical equipment to abortion clinics in America). And before the judgment you had a situation where the registries obliged every compliant family business with no links to crime or tax evasion to disclose its shareholding structure to anyone in the world, opening up possible rifts within the family.

The registries affect only companies established in the EU member states, where the risk of money laundering through companies is relatively low. Though transparency is important, the EU judgment is an invitation (and an admonishment) to have a balanced debate in this area. Compliant families have a legitimate interest in keeping their personal data away from prying eyes. This is all the more important at a time when Europe is being swept by populism and the European Convention on Human Rights is under attack.

FILIPPO NOSEDÀ
Partner
Mishcon de Reya
London

Getting people off the streets
I was pleased to read about the improving situation in homelessness in Washington, albeit from shocking levels ("The homeless decline", November 26th). It is true that government is the most important stakeholder responding to this issue, but it is reductive to present government as the sole entity that is required to end

homelessness, certainly affordably or quickly.

Solving homelessness requires government, companies, landlords, startups and communities coming together and playing to their strengths. As with any complex problem, solving homelessness also requires innovative data-driven technology, which startups can build faster and more cheaply than government. Rapid progress to consign homelessness to history requires a true alliance of the corporate world, the technology industry and local charities, among others.

ALEX STEPHANY
Founder and chief executive
Beam
London

Handing out the pink slips

As someone who has overseen job cuts and observed the impacts of good and bad redundancies, I recommend Bartleby's column on the right way to do lay-offs (November 26th) to all senior executives. I would add that laid-off employees should not be treated as criminals. Systems and critical documents need to be safeguarded, but that does not justify immediately escorting someone off the premises as if they had been terminated for cause.

It is better to allow the employee a transition period to let them hand off work responsibilities and say goodbye to colleagues. The effort to treat the laid-off employee as one would like to be treated sends a strong message of respect to the "survivors" (for that is what they surely are). The brutal redundancy processes depicted in "Up in the Air", a film from 2009, are a model of what should be avoided, not embraced.

DEAN PAVLAKIS
Helena, Montana

Start the redundancy process by sticking to the universal corporate mantra that "our people are our greatest asset", and recognise that it is not a reduction in total headcount that is needed, but in payroll.

Dismissing staff when there are so many alternatives, such as job shares, sabbaticals and part-time working, which many employees would happily take, is not only destructive for those workers made redundant, but for the company. Downturns are never for ever. One day you'll be looking to hire them back.

DAVID ROPER
Glenkindie, Aberdeenshire

A pensioner writes

I am tired of reading insulting references to "coddled pensioners" that suggest we live the high life on state benefits ("How to fix a budget in 55 days", November 12th). My full state pension this month, after contributing for 40 years, is £608.44 (\$742). Does anyone at *The Economist* live on such a sum? Furthermore, I did not receive my pension until I was 65, coming into that age group when the retirement timing for women changed. That was a hardship for a lot of women who had either been married and divorced, or not worked in their early lives due to child-care constraints.

I am fortunate enough to have an adequate workplace pension, which means that I would be regarded as a prosperous pensioner. I am quite happy to pay tax on my income, as I did over all of my 42-year working life, but we are only a minority of the over 65s in Britain. A substantial number of us are still working into their 70s. And for those unlucky enough to need full-time care in their last years, dementia, Parkinson's disease and the other ailments of old age are the only circumstances where individuals are required to sell their homes to pay for their care. This is so that we substantially reduce the "burden" on family and the state.

I suggest that you examine your own prejudices in this matter, as the zeitgeist allows things to be said and written about older people which would not be said about other groups. Try the thought experiment of replacing coddled

"pensioners" with the words blacks, gays, women, or transwomen and transmen.

RUTH FENNELL
Rackenford, Devon

What's on in Northfield

Your piece on America's tight labour market was suitably focused on the small city of Northfield ("Hot like Minnesota", November 26th). I have a granddaughter at Carleton College and have developed a fondness for Northfield. You depicted very well the character and economy of the place, with one omission. The high point of Northfield's year is the celebration of the Defeat of Jesse James Days each September. The occasion commemorates the valiant conduct of local people in thwarting the attempted robbery of the First National Bank by the outlaw Jesse James, the Younger gang and others in 1876. The annual event is a grand piece of Americana with a parade, carnival, fried food and re-enactment of the episode. Fortunately there were sufficient workers to carry it off again this year.

PAT FLEMING
Washington, DC

Is Glasto ready for Bagshot?

I know *The Economist* would have many illegal drugs legalised or at least decriminalised, and for good reason. However, Bagshot's debauched night in search of "the new masculinity" (November 19th) was sobering reading. Should we not treat binge drinking and other forms of alcohol misuse as we would other drugs, as abuse? If not, I look forward to the report of a future Bagshot weekend: LSD-induced ego-death at Glastonbury preceded by a good chundering of vegan burrito.

VIVIAN LE VAVASSEUR
Berlin



A fateful winter

KYIV

We interview Volodymyr Zelensky and his top generals about the war's crucial next phase

TWO BOOKS stand out in the stacks resting on the desk of Volodymyr Zelensky, Ukraine's president. One is a collection of essays on Ukrainian history by Mykhailo Hrushevsky, a 19th-century thinker who helped forge the country's national identity. The second is "Hitler and Stalin: the Tyrants and the Second World War", by Laurence Rees, an English historian. The books hint not only at the president's outlook, but also his changed circumstances.

When *The Economist* last spoke to Mr Zelensky, in March, the conversation took place in a situation room. He was living in a secret bunker full of instant noodles and a sense of existential peril. Now he is back in his old wood-panelled office in central Kyiv. An Oscar statuette, lent for good luck by Sean Penn, a Hollywood actor, stands on a shelf. Though sandbags and tank traps remain, gone is the adrenalin of those early weeks. Mr Zelensky's routine typifies the change. At 6am each morning he dons his reading glasses and flicks through 20 or so pages of each book.

Mr Rees's study of Hitler and Stalin, two men who swallowed swathes of Europe, hints at how Mr Zelensky views Vladimir Putin, his Russian counterpart. Hrushevsky's writing emphasises the importance of popular forces in Ukrainian history. Mr Zelensky's war aims reflect both thoughts. "People do not want to compromise on territory," he says, warning that allowing the conflict to be "frozen" with any Ukrainian land in Russian hands would simply embolden Mr Putin. "And that is why it is very important...to go to our borders from 1991." That includes not just the territory grabbed by Russia this year, but also Crimea, which it seized and annexed in 2014, and the parts of the Donbas region overrun by Russian proxies at the same time.

In recent days *The Economist* has interviewed the three men at the crux of

Ukraine's war effort. One is Mr Zelensky. The second is General Valery Zaluzhny, who has served as the country's top soldier for the past year and a half. The third is Colonel-General Oleksandr Syrsky, the head of Ukraine's ground forces, who masterminded the defence of Kyiv in the spring and Ukraine's spectacular counter-offensive in Kharkiv province in September. All three men emphasised that the outcome of the war hinges on the next few months. They are convinced that Russia is readying another big offensive, to begin as soon as January. Whether Ukraine launches a pre-emptive strike of its own or waits to counter-attack, how it garners and distributes its forces, how much ammunition and equipment it amasses in the coming weeks and months—these looming decisions will determine their country's future.

Ukraine enjoyed a triumphant autumn. General Syrsky's lightning advance through Kharkiv prompted Mr Putin to appoint a new commander and conscript 300,000 soldiers. So precarious was Russia's position in October that its generals began discussing nuclear options. In November Ukrainian forces walked into Kherson city. "This is the beginning of the end of the war," declared Mr Zelensky as he strolled through the newly liberated city. "We are step by step coming to all the temporarily occupied territories."

But neither General Zaluzhny nor General Syrsky sounds triumphant. One rea-►

→ Also in this section

22 Valery Zaluzhny, Ukraine's top general

son is the escalating air war. Russia has been pounding Ukraine's power stations and grid with drones and missiles almost every week since October, causing long and frequent blackouts (see Europe section). Though Russia is running short of precision-guided missiles, in recent weeks it is thought to have offered Iran fighter jets and helicopters in exchange for thousands of drones and, perhaps, ballistic missiles.

"It seems to me we are on the edge," warns General Zaluzhny. More big attacks could completely disable the grid. "That is when soldiers' wives and children start freezing," he says. "What kind of mood will the fighters be in? Without water, light and heat, can we talk about preparing reserves to keep fighting?" On December 13th American officials said that they were nearing a decision to give Patriot air-defence batteries to Ukraine, which, unlike the systems sent so far, are capable of shooting down ballistic missiles.

A second challenge is the fighting currently under way in Donbas, most notably around the town of Bakhmut. General Syrsky, who arrives at the interview in eastern Ukraine in fatigues, his face puffy from sleep deprivation, says that Russia's tactics there have changed under the command of Sergei Surovkin, who took charge in October. The Wagner group, a mercenary outfit that is better equipped than Russia's regular army, fights in the first echelon. Troops from the Russian republic of Chechnya and other regulars are in the rear. But whereas these forces once fought separately, today they co-operate in detachments of 900 soldiers or more, moving largely on foot.

Bakhmut is not an especially strategic location. Although it lies on the road to Slovyansk and Kramatorsk, two biggish cities (see map), Ukraine has several more defensive lines to fall back on in that direction. What is more, Russia lacks the manpower to exploit a breakthrough. The point of its relentless onslaught on Bakhmut, the generals believe, is to pin down or "fix" Ukrainian units so that they cannot be used to bolster offensives in Luhansk province to the north. "Now the enemy is trying to seize the initiative from us," says General Syrsky. "He is trying to force us to go completely on the defensive."

Ukraine also faces a renewed threat from Belarus, which began big military exercises in the summer and more recently updated its draft register. On December 3rd Sergei Shoigu, Russia's defence minister, visited Minsk, the Belarusian capital, to discuss military co-operation. Western officials say that Belarus has probably given too much material support to Russian units to enter the fray itself, but the aim of this activity is probably to fix Ukrainian forces in the north, in case Kyiv is attacked again, and so prevent them from being used in any new offensive.

Interviews

To read more of our conversations with Mr Zelensky, General Zaluzhny and General Syrsky go to economist.com/zelensky-transcript, economist.com/zaluzhny-transcript and economist.com/syrsky-interview

The third challenge is the most serious. Russia's mobilisation effort has been widely disparaged, with countless stories of inadequate kit and disgruntled conscripts. Ukraine's general staff and its Western partners are more wary. "We all know that the quality is poor and that they lack equipment," says Kusti Salm of Estonia's defence ministry. "But the fact that they can mobilise so fast is an early-warning dilemma for Ukraine and ultimately for NATO." Schemes run by Britain and the European Union can train around 30,000 Ukrainian troops in 18 months, he says. Russia has been able to conjure up five times as many new soldiers in a fraction of the time.

"Russian mobilisation has worked," says General Zaluzhny. "A tsar tells them to go to war, and they go to war." General Syrsky agrees: "The enemy shouldn't be discounted. They are not weak...and they have very great potential in terms of manpower." He gives the example of how Russian recruits, equipped only with small arms, successfully slowed down Ukrainian attacks in Kremenna and Svatove in Luhansk province—though the autumn mud helped. Mobilisation has also allowed Russia to rotate its forces on and off the front lines more frequently, he says, allowing them to rest and recuperate. "In this regard, they have an advantage."

But the main reason Russia has dragooned so many young men, the generals believe, is to go back on the offensive for the first time since its bid to overrun Donbas fizzled out in the summer. "Just as in [the second world war]...somewhere beyond the Urals they are preparing new resources," says General Zaluzhny, referring to the Soviet decision to move the defence industry east, beyond the range of Nazi bombers. "They are 100% being prepared." A major Russian attack could come "in February, at best in March and at worst at the end of January", he says. And it could come anywhere, he warns: in Donbas, where Mr Putin is eager to capture the remainder of Donetsk province; in the south, towards the city of Dnipro; even towards Kyiv itself. In fact a fresh assault on the capital is inevitable, he reckons: "I have no doubt they will have another go at Kyiv."

That means that the war has become a race to re-arm. For Ukraine, that sets up a painful trade-off between the present and the future. Fighting will slow down over winter, but it will not stop. A rocket attack on barracks used by the Wagner group in the city of Melitopol on December 10th was a reminder of how Ukraine can use HIMARS launchers supplied by America to wear down Russian forces in the coming months. But in Donbas the war remains one of muddy trenches, relentless shelling and bloody infantry combat.

The temptation is to send in reserves. A wiser strategy is to hold them back. "I know how many combat units I have right now, how many combat units I have to create by the end of the year—and, most important, not to touch them in any way now. No matter how hard it is," says General Zaluzhny. His agonising decision is redolent of the ➤



► British commanders who held back Spitfire fighter planes as France suffered a German onslaught in 1940. "May the soldiers in the trenches forgive me," says General Zaluzhny. "It's more important to focus on the accumulation of resources right now for the more protracted and heavier battles that may begin next year."

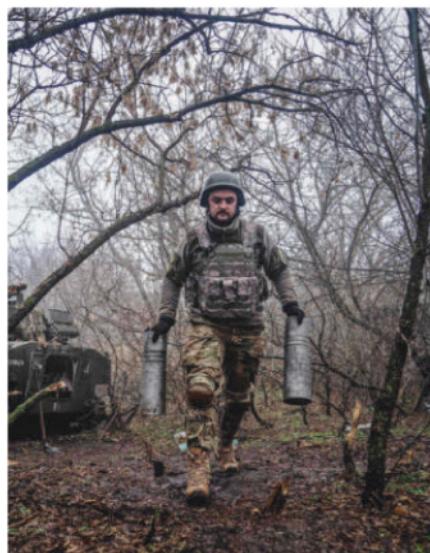
Ukraine has enough men under arms—more than 700,000 in uniform, in one form or another, of whom more than 200,000 are trained for combat. But materiel is in short supply. Ammunition is crucial, says General Syrsky. "Artillery plays a decisive role in this war," he notes. "Therefore, everything really depends on the amount of supplies, and this determines the success of the battle in many cases." General Zaluzhny, who is raising a new army corps, reels off a wishlist. "I know that I can beat this enemy," he says. "But I need resources. I need 300 tanks, 600-700 IFVs [infantry fighting vehicles], 500 Howitzers." The incremental arsenal he is seeking is bigger than the total armoured forces of most European armies.

Ukraine's partners are speeding up efforts to repair and refurbish old and damaged equipment to return it to the field faster, in part by teaching Ukraine to fix it as close to the front lines as possible. They are also accelerating the manufacture of weapons to meet growing demand from Ukraine and their own armed forces.

On December 6th America's Congress agreed in principle to let the Pentagon buy 864,000 rounds of 155mm artillery shells, more than 12,000 GPS-guided Excalibur shells and 106,000 GPS-guided GMLRS rockets for HIMARS—theoretically enough to sustain Ukraine's most intense rate of fire for five months non-stop. But this will be produced over a number of years, not in time for a spring offensive.

Russia has similar problems. It will run out of "fully serviceable" munitions early next year, says an American official, forcing it to use badly maintained stocks and suppliers like North Korea. Its shell shortages are "critical", said Admiral Tony Radakin, Britain's defence chief, on September 14th. "Their ability to conduct successful offensive ground operations is rapidly diminishing." But Mr Putin's gamble is that he can churn out sub-par shells longer than America and Europe can provide Ukraine with shiny new ones. Ukraine's allies are struggling to keep it well supplied, acknowledges General Zaluzhny. He recalls telling Admiral Radakin that the British Army fired a million shells in the first world war (in fact Britain fired 1.5m at the Somme alone). "We will lose Europe," came the reply. "We will have nothing to live on if you fire that many shells."

Supply also affects strategy. The choices vexing Mr Zelensky and his generals carry an echo of those that arise in every pro-



Not out of the woods

tracted conflict. In 1943, for instance, Germany was on the defensive, but the Allies disagreed over where and when to press their advantage. Britain wanted to strike in Italy and the Mediterranean. America and the Soviet Union preferred an invasion of France. Post-war considerations played a role, too. Britain wanted to attack the Balkans to forestall Soviet domination of the area. Ukraine's high command is grappling with the same sort of questions today, but from a much more parlous position.

Timing is crucial. Feeding in reserves piecemeal is a good way to destroy lots of manpower slowly, much as Russia did in Donbas over the summer. Attack too early and Ukraine will not have enough trained and equipped units. "With this kind of resource I can't conduct new big operations, even though we are working on one right now," says General Zaluzhny. But leave it too late, and Russia may strike first, pinning down Ukrainian forces.

Long-term occupation is already poisoning Ukrainian minds, warns Mr Zelensky: "I must admit that this propaganda model of the Kremlin—it works." Ukrainians in the occupied territories, he says, are like astronauts who cannot take off heavy helmets—limiting what they can see to unrelenting disinformation. "It's a little scary to see how the de-occupied cities have changed when we go to some of these towns," he says. A strategy to bleed Russia slowly is therefore off the table. "The main thing is not to be afraid of this enemy," says General Zaluzhny. "It can be fought, it must be fought today, here and now. And in no way should it be postponed till tomorrow, because there will be problems."

Another question is where to strike. The most tempting option for Ukraine is to build up a big force to drive south towards the Sea of Azov. That would rupture the "land bridge" of occupied territory that

connects Russia to Crimea. Advancing 84km south through Zaporizhia province to Melitopol would suffice, says General Zaluzhny, because it would put HIMARS launchers within range of Russian supply lines to the peninsula, making the enemy's positions untenable. Ukrainian officials say that this approach was discussed and war-gamed earlier in the year with General Mark Milley, America's top soldier, and Lieutenant-General Chris Donahue, commander of America's 18th Airborne Corps, which co-ordinated Western training and equipment for Ukraine until recently.

Ukraine ruled out an offensive in Zaporizhia province in the summer, preferring to focus on the city of Kherson because of a lack of resources. Such an attack would have other drawbacks, too. Russia has strengthened its position in the south since November, digging new trenches, building multiple lines of defence and redeploying forces that retreated from Kherson that month. It is also the most predictable course of action.

"All of our successes are due to the fact that we never go head-on," notes General Syrsky. His gains in Kharkiv owed much to deception and surprise. During the Kherson offensive, commanders were told to plan diversionary action. That drew his attention to weak points in the Russian line around Izum. He collected reserves by withdrawing individual battalions from different brigades, and assembling them quietly without being spotted. Repeating that trick might require identifying Russian vulnerabilities in less strategic parts of the front, such as around Svatove or south of Donetsk. Another option is to conduct big raids: quick thrusts intended to harass, damage and destroy, rather than hold ground. "There is an antidote for every poison," notes General Syrsky.

The military choices—spring or summer, Zaporizhia or Donbas—depend on many factors, from supplies of Western arms, to weather, to Russia's own choices. Perhaps most important, it depends on Ukraine's strategy to end the war. Mr Zelensky insists that the only way to conclude it is a complete Russian retreat, both from land seized this year and from territory occupied since 2014. "The only difference I talk about is the one between us driving them out or them withdrawing," says Mr Zelensky. "If he [Mr Putin] now withdraws to the 1991 borders then the possible path of diplomats will begin. That is who can really turn the war from a military path to a diplomatic one. Only he can do it."

In private, however, Ukrainian and Western officials admit there may be other outcomes. "We can and should take a lot more territory," General Zaluzhny insists. But he obliquely acknowledges the possibility that Russian advances might prove stronger than expected, or Ukrainian ones ►

► weaker, by saying, "It is not yet time to appeal to Ukrainian soldiers in the way that Mannerheim appealed to Finnish soldiers." He is referring to a speech which Finland's top general delivered to troops in 1940 after a harsh peace deal which ceded land to the Soviet Union.

Even steady Ukrainian advances are likely to culminate in diplomacy. Some Ukrainian generals think that the aim of an offensive should not just be liberating territory, but doing so in a way that induces Mr Putin to cut a deal. A European official familiar with Ukrainian planning says that the ideal operation would be one that persuaded Mr Putin that the war was unwinnable, and that prolonging it would risk even his pre-war holdings—Crimea and a third of Donbas. Like all coercive strategies, such an attack would rely on restraint as much as aggression, by threatening

Crimea, but also possibly forgoing it.

Indeed, as Ukraine advances, its partners may worry increasingly about the risk of nuclear escalation and limit their support accordingly. On December 5th Antony Blinken, America's secretary of state, said that America's goal was to give Ukraine the means to "take back territory that's been seized from it since February 24th".

But a war which revolves around Ukraine's identity as much as its territory—indeed one which has forged that identity anew, far more strongly than before—has unleashed forces beyond the control of even Mr Zelensky, perhaps the most popular leader in the world today. Over 95% of his citizens want to liberate the entirety of Ukraine, he notes. Hatred of Russia runs deep. "It is a tragedy for families who lost children...That's why people hate. They don't want compromises." ■

other enemies must be killed, just killed, and, most important of all, we should not be afraid to do it."

That resolve was crucial in the early days of the war, when outsiders assumed that the Ukrainian state and armed forces were at risk of complete collapse. "Americans told us to prepare for entrenched defence. But we had one chance and we took it...Our task was to distribute our smaller forces in such a way as to use unconventional tactics to stop the onslaught."

General Zaluzhny is not dismissive of the Russian forces: "They are not idiots." Like Volodymyr Zelensky, Ukraine's president, he grew up speaking Russian and reading Russian literature. But the army he leads is the antithesis of its Russian counterpart, just as Mr Zelensky could scarcely be more different from Vladimir Putin. "With all due respect to Mr Surovkin [the commander of Russian forces in Ukraine] if you look at him, he is an ordinary Petrovite commander from Peter the Great's time, shall we say, a *derzhimorda* [a brutal martinet in Gogol's play, "The Government Inspector"]. You take one look at him and understand that either you complete the task or you're fucked."

This approach, General Zaluzhny says, simply does not work in Ukraine. After protests toppled the government in 2014 and Russia invaded eastern Ukraine, "21-year-old lieutenants came to command men who were in their 50s and 60s". For his part, he says, "I certainly don't think I am the smartest one here. I must and do listen to those who are in the field. Because the initiative is there."

General Zaluzhny is among the most popular people in Ukraine, however, thanks to his successful prosecution of the war. He has never displayed any interest in politics but, inevitably, his popularity has generated insecurity in the president's office, which has actually polled Ukrainians to ask if they would vote for the general's political party, even though he does not have one. Officials close to Mr Zelensky are quick to point out that General Zaluzhny has not visited the front line. That, say the general's defenders, is because the same officials have barred him from doing so. Some in the president's circle would like to replace him with General Oleksandr Syrytsky, who commands Ukraine's land forces, over whose head General Zaluzhny was promoted last year.

At best, these petty rivalries are a distraction. Worse, says a senior foreign soldier, they could undermine Ukraine's unity and weaken Western confidence in its leaders. "This is not the time for politicking or undermining trust between political and military command," he warns. General Zaluzhny, after all, is not short of pressing problems, as the upright photograph of General Vorobyov attests. ■

Valery Zaluzhny

Restraint under fire

KYIV

Ukraine's top soldier runs a different kind of army from Russia's

THE OFFICE of Valery Zaluzhny, the head of Ukraine's armed forces, has few personal touches bar a framed photograph on his desk, of a soldier in uniform. "When I am at ease, when things are going well, this picture is lying face down, I don't need to look at it. When I have doubts about something I put it up straight," he explains.

The picture is currently upright. It shows the late General Hennady Vorobyov, who commanded Ukraine's ground forces from 2009 to 2014. He rejuvenated the top ranks, instilled a culture of respect for subordinates and refused to deploy troops to suppress public protests in 2013-14. "I look at the photograph trying to figure out what Hennady Vorobyov would do," General Zaluzhny says.

It is no wonder that the general's choices weigh heavily on him. Few people have as much power and responsibility. His decisions may determine not just the course of the biggest conflict in Europe since the second world war, but also the fate of hundreds of thousands of soldiers and civilians. Yet dressed in a fleece, with a brick-wall build and a shy but sly smile, he has the air more of a wily farmer than a domineering officer. Then again, in Ukraine, where Cossacks used both to work the land and defend it, the two callings are not so far apart. "I am not doing anything extraordinary. I am just doing my job—the one I love most," he says.

General Zaluzhny is too young to have

served in the Soviet army and was never indoctrinated in its culture of "commandership", which rewarded obedience and suppressed initiative. "It is always possible to be normal...to remain human in any situation—that is the most important thing." But that does not mean he is not forceful: "Since the start of the war I fired ten [generals] because they were not up to it. Another shot himself." He is even more ruthless, naturally, about the invaders he has been fighting since 2014: "Russians and any



Uniformed non-conformist



Sino-Japanese relations

East Asia's big beasts don't get on

TOKYO AND WASHINGTON, DC

Separating security and commerce is becoming harder for Japan and China

XIAO XIAO and Lei Lei, two baby pandas at Tokyo's Ueno Zoo, have a weighty diplomatic lineage. Their predecessors, Kang Kang and Lan Lan, were presented to Japan by China's rulers in 1972 to celebrate the normalisation of relations between the former foes that year. They were probably the first pandas to set paw in Japan; the queue to see them stretched a kilometre through the zoo's leafy grounds.

In some respects, the relationship between Asia's two economic heavyweights has since been happily symbiotic. Japanese aid and investment helped China modernise; the growing Chinese market helped fuel Japan's growth. Last year China was by far Japan's biggest trading partner, and Japan was China's second-largest: bilateral trade hit a ten-year high of \$391bn. Yet the disagreements over territory and history that still strained the relationship half a century ago—chiefly, over the status of the Senkaku/Diaoyu islands, and of Taiwan, and the memory of Japan's wartime aggression—are unresolved. And under Xi Jinping, China's aggrieved, nationalistic leader, they have been exacerbated.

Both countries now view the other primarily as a potential threat. Nearly 90% of Japanese have a negative view of China; more than 60% of Chinese feel the same way about Japan. By stopping people-to-people exchanges, China's zero-covid policies have made a difficult situation worse. The 50th anniversary of normalisation, on September 29th, elicited little fanfare in either country. Their leaders, Kishida Fumio and Mr Xi, were not on speaking terms at the time. Even Japanese panda-huggers are concerned. "I wish the leaders would make more effort to get along," said a man who had come to see Xiao Xiao and Lei Lei in Ueno one recent wintry Tokyo afternoon.

To try to keep the mutual suspicions in check, there has been a recent flurry of di-

plomacy. The two countries' national security advisers, Akiba Takeo of Japan and China's Yang Jiechi, met in August for seven hours of talks. That led to a brief meeting between Mr Kishida and Mr Xi on the sidelines of the Asia-Pacific Economic Co-operation summit on November 17th. It was their first conversation, save for a 30-minute phone chat after Mr Kishida took office in October 2021.

Chinese aggression is the main new source of tension. Five Chinese missiles landed in Japan's exclusive economic zone during the military drills China staged in August in response to a visit to Taiwan by Nancy Pelosi, the speaker of America's House of Representatives. Those shots, says Yun Sun of the Stimson Centre, a think-tank in Washington, were a signal from China's rulers. "They are warning Japan against getting involved militarily in a potential Taiwan contingency: 'You really want to go all-in with the Americans? This is not even a taste of what will be coming.'" Days after Mr Kishida and Mr Xi met, heavily-armed Chinese coastguard vessels sailed into Japanese territorial waters near the Senkaku/Diaoyu islands.

Japan is taking major steps to beef up its armed forces. Earlier this month Mr Kishida pledged to raise defence spending to the equivalent of 2% of GDP within five years, up from around 1% now. A new national-security strategy to be released this week will call China a "challenge", replacing a formulation that stressed possible co-operation. "Japan was trying not to antago-

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nise China in the past," says Aoyama Rumi of Waseda University in Tokyo. "Now the language is catching up with the reality." Japan has also become more vocal about its interest in protecting Taiwan.

Behind the scenes, both sides are making efforts to avoid a worse deterioration. After clashes between Japanese patrol boats and Chinese fishing vessels around the Senkaku/Diaoyu islands in 2010-12, China banned exports of rare-earth metals to Japan and Chinese consumers boycotted Japanese products. China has not taken or incited such action in response to the latest friction. Signals from Beijing suggest "China wants to cool down the hot temperature," says Kawashima Shin of the University of Tokyo. During their meeting, Mr Xi and Mr Kishida agreed to accelerate the creation of a hotline between their respective armed forces.

China considers Mr Kishida less provocative than his more nationalistic predecessor, Abe Shinzo, who was assassinated in July, notes Ms Sun. It might also prefer to keep its relations with Japan relatively calm, given how bad they are with America. As its economy emerges from zero-covid, China will need the foreign investment and technology Japan can provide.

Japanese businesses remain committed to the Chinese market. "The world cannot thrive without China, and China cannot decouple itself from the world," declares Tokura Masakazu, chairman of Keidanren, Japan's big-business federation. Last year China accounted for 24% of Japan's imports and 22% of its exports. (America takes 18% of Japan's exports; only 9% of America's exports flow to China.)

Yet the strains on the relationship are likely to increase. China believes it can press its territorial claims, while still courting Japanese investment. Japan wants to deepen its security ties with America and deter China from taking action on Taiwan, yet keep trade flowing. "There has never been a time when it was as hard to separate economics and politics as today," Yamaguchi Hirohide, a former

deputy governor of the Bank of Japan, said last week in Tokyo at the Tokyo-Beijing Forum, an annual summit for Japanese and Chinese bigwigs.

Earlier this year, Japan's parliament passed an "economic security" law aimed at protecting sensitive technologies and supply chains for critical goods. More than half of Japanese firms are planning to reduce dependence on China in their supply chains, according to a survey by *Nikkei*, a business daily. Concerns about a possible conflict over Taiwan are a big reason why. Honda, for example, is reported to be secretly studying what it would take to assemble its cars without parts from China.

America's trade war with China, including its recent ban on sales of advanced semiconductors, is another complicating factor. Japan is firmly on America's side when it comes to security, but Japanese firms "must play both sides when it comes

to trade", gripes a Japanese official. Many in Tokyo consider America's approach to China heavy-handed. "America is far away and can survive a war with China—our interests don't align exactly," says a Japanese government adviser. China reckons that it can "create incentives for Japan to restrain the extent to which it co-operates" with America's policies, says Robert Ross of Boston College.

Even reviving a proper dialogue between the two countries will not be easy. Japanese diplomats are finding it hard to have frank conversations with their Chinese counterparts. Leader-level summits have thus become more important. Before the pandemic, Mr Xi was set to visit Tokyo. China's ambassador to Tokyo recently called for that plan to be revived. Yet even if it is, there is little prospect of bonhomie in the relationship. A more realistic hope is that it does not get worse. ■

Japan

Dying tongues

YONAGUNI

Okinawa's endangered languages are victims of history

IKEMA RYUICHI stands in the museum his mother built on Yonaguni, a coral-reef-fringed tropical island and southwestern outpost of Japan. Large clay vessels, intricate baskets and lavish flower-print textiles fill the shelves. In one display case is a worn book: a dictionary the woman assembled to preserve her local language, known as Dunan. Mr Ikema is one of a dwindling number of people who can still speak it.

Yonaguni's is one of half a dozen indigenous languages spoken on the Ryukyu Islands. The island chain, which includes Okinawa, stretches thinly almost from Kyushu to Taiwan, and was once an independent kingdom. That precarious position has long made the Ryukyus a battleground for the chain's bigger neighbours. Its languages are among their victims.

Though Ryukyuan languages and Japanese belong to the same family, linguists reckon they have about as much in common as English and German. But when Japan annexed the islands in the 1870s, it declared the Ryukyuan languages mere dialects of Japanese. They were banned in schools. Students who persisted in speaking them were forced to wear demeaning placards around their necks.

Ryukyuan families kept the languages alive at home. Then, after the second world war, America occupied Okinawa and encouraged a return to Ryukyuan languages in a bid to distance the islanders from the rest of Japan. By associating

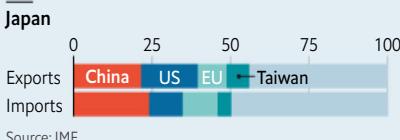
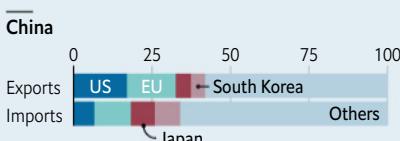
the local languages with its unpopular occupation, however, America probably hastened their demise. "Speaking Japanese became a tool to free the Ryukyus from the Americans," says Patrick Heinrich of Ca' Foscari University of Venice.

The decades of neglect took a toll. In 2009 UNESCO declared all six Ryukyuan languages (which are almost mutually unintelligible) severely or critically endangered. Ryukyuan activists have since made some progress in revitalising their use, especially on Okinawa. Yet the languages are still in peril. And the activists are not helped by Japan's continuing reluctance to recognise them as distinct tongues. To do so, notes Mr Heinrich, would involve acknowledging how recently, and in what circumstances, the Ryukyus became part of Japan: "It takes you to the history."

Dunan is probably the most threatened language. Only around 100 people speak it fluently. Yonaguni's government has therefore made optional Dunan courses available in schools. Muramatsu Minoru of the local education board, who is from Honshu but has learned the island language, has led an effort to assemble new Dunan dictionaries. There is a Dunan saying that sums up the stakes: "If you forget the language, you forget the island; if you forget the island, you forget your parents." Yet it is hard to imagine such modest steps saving Dunan. Mr Ikema is not hopeful. "Dunan will eventually disappear," he says.

Ties that bind

Merchandise trade, by country
2021, % of total



Source: IMF

Congscription in South Korea

BTS takes on Kim Jong Un

SEOUL

Military service may be a bit duller than stardom for Jin

KIM SEOK-JIN is in the globally trendsetting, fabulously lucrative prime of his career. As a member of BTS, the world's biggest boy band, the 30-year-old has topped charts in many countries, been nominated for several Grammys, addressed the United Nations and met President Joe Biden. Along with "Parasite" and "Squid Game", his band is the go-to example of South Korean soft power.

Yet on December 13th Mr Kim, or "Jin" as he is called by the many million members of the ARMY, as the septet's fans are known, undertook the same dull rite of passage as most South Korean men. He became the first BTS member to begin military service.

Unless they have extenuating circumstances, all South Korean men must serve at least 18 months in the country's 550,000-strong armed forces, starting before they turn 28. BTS's megastardom is arguably such a circumstance (notwithstanding the useful capability its members boasted of in their hit, "We are bullet-proof"). South Korea's parliament therefore passed a law in 2020 to allow those who "excel in popular culture and art" to postpone their service.

The BTS boys could probably have done so indefinitely. The government had been mulling giving them an exemption similar to that enjoyed by top athletes and classical musicians, who are allowed to do basic training and no more. There was also talk of the pop stars being allowed to carry on making music as part of their service—just as those proficient in science and mathematics may continue their studies in a government-approved research department or company. Yet Mr Kim and his colleagues appear to have concluded, like Elvis Presley in 1958, that dodging the draft would be more damaging to their reputations than military service would be dreary. "It's curtain-call time," Mr Kim, now sporting a crewcut instead of his usual stylish hairdo, told his fans on social media.

The opportunity cost of military service, exorbitant in his case, is a general burden on South Korean men. The country's education system is highly competitive; a larger proportion of school-leavers go to university in South Korea than in any other country. This makes its graduate jobs market extremely tough, and the enforced career interruption that military service represents—most conscripts take time out to serve in the middle of their degree course—commensurately painful.

Military service also tends to be boring. Fighting across the demilitarised zone (DMZ) that separates South Korea from the communist dictatorship to the north is very rare. Suicide is by far the biggest cause of death among conscripts. The only thing 28-year-old Han Seung-joo recalls battling at his station close to the DMZ in Yeoncheon, where Mr Kim will do his basic training, was the weather. "There was a lot of snow-shovelling," he recalled. "We would shovel the snow and look back and there would be more snow."

Many never get near the front. The closest Kim Young-cheol, a 28-year-old software engineer who served in the auxiliary police, came to action was overseeing, generally uneventful, political protests. He reckoned each 12-hour shift his squad served amounted to 180 hours of wasted labour. "All these men were sitting on the bus and just doing nothing," he said.

Those medically unfit to serve also tend to be assigned humdrum labour. Lee Sang-yup, who has scoliosis, was posted to a primary school to help serve lunch. "It always felt like a waste of time," he recalls. "I would do everything to get out of it."

The fact that Korean women need not serve strikes many men as unfair. Some believe it gives women an advantage in the job market. If so, it is cancelled out by other factors. Many firms are alleged to give men preferential treatment to reward them for their service. The gap between male and female wages in South Korea is larger than in any other country in the OECD, a club of mostly rich countries. Still, conscription is a persistent male grievance, which politicians shamefully exploit. Yoon Suk-yeol, South Korea's president, won election this year in part by vowing to abolish the country's gender-equality ministry. He is trying to make good on that promise.

There are compensations for the en-

forced tedium of service, including camaraderie and a sense of duty fulfilled. Nearly half of men in their 20s purport to believe that military service is beneficial to them. Park Jong-tae, a 29-year-old engineer whose main responsibility was guard duty, is proud of his "small contribution" to national security. He nonetheless suggests that most conscripts could do with being given more "meaning and a common goal".

With luck, Mr Kim will find some of that in Yeoncheon. Anyway, he can at least look forward to resuming megastardom in due course. Asked whether his impending service would kill his career, Elvis replied: "That's the \$64 question. I wish I knew." If the King is any guide, Mr Kim and his fellow band members should be OK. ■

Protests in Mongolia

At the coal face

BEIJING

Citizens brave the cold to scold the ruling classes

THE TEMPERATURE in Ulaanbaatar, the world's coldest capital, has hit minus 30°C. This has not deterred thousands of Mongolians from taking to the city's vast Sukhbaatar Square in a remarkable series of protests against corruption. As *The Economist* went to press, the spontaneous demonstrations looked to be about to enter their third week.

Almost a third of Mongolia's 3.3m people live below the poverty line. But the continent-sized country's mineral-extraction economy has created a lot of wealth. Hummers are the Mongolian elite's vehicle of choice. A Mongolian copper mine under development, Oyu Tolgoi, or "Turquoise Hill", will be the world's fourth biggest. Yet for now coal is king. To the northwest of Oyu Tolgoi are some of the world's biggest deposits of thermal and high-quality coking coal. They are dug up and trundled in fleets of lorries (and latterly by a new railway) across the Gobi desert to China. This operation is managed by a state-owned entity, Erdenes Tavan Tolgoi (ETT). It has long been a byword in Mongolia for callousness and mismanagement.

The spark for the protests was an alleged massive theft of coal from the state-owned firm's stockpiles near the border with China; 385,000 tonnes may have gone missing. Crowds of mostly youngish Mongolians flocked to Sukhbaatar Square to show their disgust. After an initial attempt to storm the main government building adjacent to the square, the protests have been peaceful. An upbeat, almost studious atmosphere permeates them. Participants ►



Jin, bullet-proof and ready to serve

Banyan Brawling on the roof of the world

China's frontier aggression is pushing India towards the West

THE MOST likely flashpoints in Asia are generally thought to be the Taiwan Strait, the South China Sea and the Korean peninsula. This week, though, attention turned to the Himalayas and the 3,440-km (2,150-mile) border, much of it disputed, between the world's most populous powers. News of a high-altitude brawl on December 9th has trickled down from the mountains.

The border disputes date back to the early 20th century when Britain demarcated spheres of influence between British India and Tibet (not in those days under Chinese subjugation). At the western end of the frontier, India claims Aksai Chin, an area under Chinese control in the Xinjiang region. In the eastern sector, China claims the whole of the Indian state of Arunachal Pradesh as a historical part of Tibet: an earlier Dalai Lama was born in its Tawang monastery. Sixty years ago India and China fought a nasty war over the disputed line. It ended with India humiliated by the People's Liberation Army (PLA).

In the decades since, confrontations have often taken place. But thanks to protocols agreed between the two countries—including a ban on using firearms when patrols clash—most have been tokenistic. Until recently, both sides tacitly acknowledged the other's patrol routes along the contested Line of Actual Control (LAC). When rival patrols met, warning banners were raised and sharp words exchanged, but little worse.

That changed in 2020 when the remote Galwan valley, in Ladakh in the western sector, saw a terrible mêlée that left 20 Indian and four Chinese soldiers dead. They were the first fatalities along the frontier since 1975. The latest incident was in the eastern sector near Tawang, and resulted in no deaths; yet it

appears to have been similar to the one in Galwan. Several hundred PLA soldiers—many times the usual patrol size—are said to have charged across to the Indian side of an “agreed disputed area”, in the frontier jargon. They carried tasers and spiked clubs, and were swinging “monkey fists”, steel balls on lengths of rope. Well-prepared Indian troops pushed them back, India claims, but with injuries on both sides. China says the Indians “illegally” crossed the LAC and sought to block a Chinese patrol. It was the first clash in the eastern sector in years.

Though the details of such incidents are always contested, and neither side's account is reliable, the Galwan fracas appeared to represent a direct Chinese challenge to the status quo. It occurred after China had built new roads along the border and reinforced it with troops and equipment. It is now doing much the same in the eastern sector and India, as ever, is scrambling to keep up. “Unpredictability” along the frontier, writes Sushant Singh of the Centre for Policy Research in Delhi, “has become structural”.



To manage the tensions that it has done so much to increase, China may well propose to establish buffer zones in the east, just as the two sides have done in the west. Given that such zones often mean India being shut out of areas that it had previously patrolled, they are tantamount to an Indian retreat. Narendra Modi, India's prime minister, would be extremely reluctant to submit to this. India's political opposition senses that he is vulnerable on the issue.

Mr Modi once invited President Xi Jinping to his home state to celebrate the Indian prime minister's birthday. Such chumminess is long gone. China says the border dispute should be isolated from the two countries' broader relationship. But India considers a peaceful border a precondition for normal ties, says Tanvi Madan of the Brookings Institution, a think-tank in Washington. Since Galwan, India has blocked a lot of Chinese investment and banned Chinese apps. Official visits are curtailed. The two leaders have had one brief exchange in three years, at the G20 summit in Bali.

It is hard to see how this advances China's interests overall. Indian policy-makers used to be sullenly averse to India being seen as part of an anti-China bloc. Now, Ms Madan argues, China has “lost” India. Where it was once hostile to trade deals that might hurt Indian firms, farmers or workers, India is seeking or doing deals with Australia, the EU and others. Deeply alive to the Chinese threat, it is also co-operating much more on defence with America and its friends. Last month Indian and American armed forces even held a two-week exercise in Uttarakhand, a state bordering China. India is still not in the Western camp. But the more Himalayan trouble it faces, the further it tilts towards it.

debate new issues each day, such as the pros and cons of non-violent protest. The scene recalls the demonstrations in the same square in the 1990s that toppled Mongolia's erstwhile communist regime.

A well-connected “coal mafia” is alleged to be behind the theft. The names of its reputed members, including politicians, are circulating on social media. Many are familiar. More surprising is the response of President Ukhnaagiin Khurelsukh and his ruling Mongolian People's Party (MPP). Several former ETT executives have been arrested over the scandal. On

December 13th Mongolia's anti-corruption body declared that a former president, Khaltmaagin Battulga, was among nearly two dozen people being investigated.

It will take more than this to appease the protesters, suggests Oyungerel Tsedevdamba, a former minister who visits Sukhbaatar Square every day. The anti-corruption body is not independent. Court-imposed fines and sentences for those convicted of corruption are often desultory. Besides, the grievances being aired in the square, from the capital's pea-soup smog to high inflation, go beyond the coal heist.



Mr Khurelsukh may feel the need to offer the protesters a sacrificial lamb, perhaps even his prime minister, Luvsannamsrain Oyun-Erdene. Or the protests might peter out, smothered by the cold. A third possibility, Julian Dierkes of the University of British Columbia cautions, is that the so-far leaderless movement could get hijacked by those seeking to bypass the political process altogether. That would send Mongolia down the path of protest and revolution that has harmed other Asian countries, notably Kyrgyzstan. A cold wind is blowing across the steppe. ■

**Covid-19**

On their own

BEIJING

The government has left the public to fend for itself against covid-19

JUST A FEW months ago Chinese people had little fear of catching covid-19. The government's "zero-covid" measures kept them safe for the most part. Mass testing and strict lockdowns contained the virus. If a person did test positive, the government would swoop in. The infected were taken to state-run quarantine centres. If symptomatic, they were treated in a designated hospital. Health workers would douse their house with disinfectant and test their neighbours.

All this changed on December 7th, when the central government largely ditched its zero-covid policy, lifting most restrictions. Six days later it scrapped an app that tracked people's movements. The highly transmissible Omicron variant had made zero-covid unsustainable.

Now the public is expected to fend for itself. "Be the first person responsible for your own health," wrote the *People's Daily*, a Communist Party mouthpiece. Some residents of Beijing have received letters from the local committees that used to enforce

covid controls. Stop reporting fevers and coughs to us, one read, before wishing people good luck. "Thank you for the past three years of support and understanding."

The official number of new cases is falling, as if the virus were fading away. But official numbers are no longer reliable because the government has scaled back testing. If it has an alternative way of keeping tabs on the epidemic, it is not sharing it.

Still, it is pretty clear that a covid wave is building, as people share stories of infection online. An informal survey has been circulating on social media asking Beijing residents if they have caught the virus. As *The Economist* went to press, 39% of the 434,000 or so respondents had said yes.

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Such surveys are striking, not just for the numbers. A few months ago people who had caught covid were stigmatised. They might, for example, struggle to find jobs after recovering. Now the disease is so common that people are posting their test results on social media, often substituting for the word "positive" a cartoon of a sheep (which is a Chinese homophone for positive). Others are sharing lighthearted advice about the best time to catch covid. An infection now or in early January, for example, might clear up in time for a person to enjoy both Christmas and the lunar new year. "Why aren't I positive yet?" complained one young woman in a video.

Others, though, are worried. Until recently the government told people that covid was to be feared. Now the official line is that Omicron is no worse than the flu (see next story). Infected people who are not showing serious symptoms have been encouraged to stay at home and treat themselves. Not everyone is listening. Beijing's emergency-call operators have been swamped by over 30,000 calls a day, about six times the average. Queues have appeared outside fever clinics in several cities. Certain medicines are in short supply. On December 13th a health-care website began selling Paxlovid, a highly effective antiviral drug used to treat covid. Its initial stocks sold out in half an hour.

Hospitals are under more stress as doctors and nurses catch the virus. There are ➤

► reports that some medical workers who have tested positive have been asked to come in anyway, risking more transmission within hospitals. As of December 13th Beijing had 50 severely ill patients, according to the official numbers. So far, the health system does not appear to be overwhelmed. But the peak of this wave is still some way off. It will probably come in late January, at least in Beijing, says Ben Cowling, a professor of epidemiology at the University of Hong Kong.

With the government changing its message, people are looking elsewhere for guidance. Overseas Chinese students who have experience with covid are sharing advice on WeChat, a social-media app. They tell people what symptoms to expect and how long they might last. In general, though, good information on the virus is lacking. There are reports of people going to hospital after taking too much fever medicine. Herbal remedies used to combat covid are in hot demand, though doctors doubt their effectiveness.

Vaccines, not voodoo

At least people now see the need to protect themselves against the virus, which was once viewed as a terrifying but distant threat. More are getting vaccinated. The number of jabs administered each day has increased from fewer than 200,000 to over 1m. But there is a lot of ground to make up, especially when it comes to the most vulnerable. Only around 40% of people over 80 have received the three doses needed to significantly reduce the chances of severe disease or death. Yet some elderly people have had trouble getting a shot because of a lack of supply at clinics.

People are also taking steps that will help mitigate the spread of the disease and perhaps reduce the pressure on hospitals. In Beijing the shopping centres and streets are largely empty, as people stay inside. Call it a self-imposed lockdown. People who do venture out wear N95 masks (which are good at filtering small airborne particles). Demand for home deliveries of meals and groceries has shot up.

But people are still making plans to travel back to their villages and home towns for the lunar new year in late January. Data from Ctrip, a booking platform, show that the volume of searches for flights has increased by 160% since the government loosened restrictions. Searches for train tickets on Baidu, a search engine, increased by nearly 600% during that time. Many rural areas are woefully unprepared to handle a surge in cases.

When the peak of this wave approaches, "it would make a lot of sense to bring back some public-health measures," says Mr Cowling. But reversing course may be hard for the government to justify without admitting that it had made a mistake. ■

Propaganda and the virus

No worse than the flu?

What to make of the claim that this version of covid-19 isn't so bad

TO HEAR LOCAL officials tell it, the Omicron sub-variant of covid-19 spreading across China is rather mild. According to state media, it is no worse than the flu. The virus, you see, has mutated into a less dangerous form, so lifting restrictions earlier this month was reasonable and prudent. That, at least, is what the government would have people believe. Is it right?

Two characteristics matter most when assessing the threat of a sub-variant. The first is its intrinsic transmissibility, or its ability to spread in the absence of defences. This goes a long way to determining the risk of cases overwhelming hospitals.

The covid strain in China is a version of the BA.5 sub-variant of Omicron, for which the data are patchy. But an earlier Omicron sub-variant, which caused a big outbreak in Shanghai this year, was about 60% more transmissible than the original Wuhan strain of the virus, generating 3.9 new cases per infection. (At current levels of vaccination, we estimate the reproductive rate to be 3.3.) Some scientists think that BA.5 is even more transmissible. In China cases may be doubling every one to two days. So the government's argument is off to a bad start. But the Chinese people are helping it out by wearing masks and staying at home, thus slowing the spread of the virus and easing the pressure on hospitals.

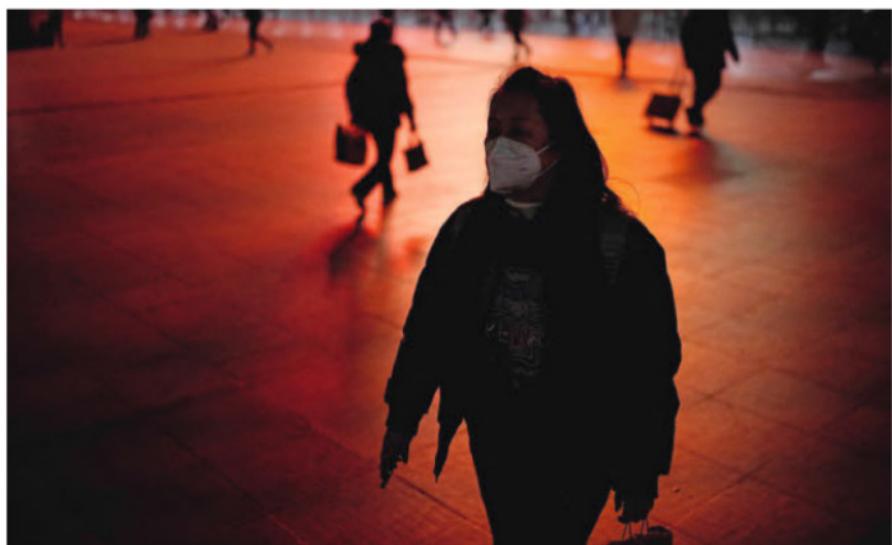
The second important characteristic is severity. China claims that BA.5 is less threatening than its predecessors. In gen-

eral it is true that Omicron is less severe than the Delta variant, which preceded it. Some scientists think Omicron is on the same level as the Wuhan strain. But whether the Omicron sub-variant spreading in China is less severe than previous Omicron sub-variants is another question. One study in America of the BA.2 sub-variant found that it was less dangerous than the original Omicron strain. Another in Hong Kong found that BA.2 and the Wuhan strain had similar severity. There is little evidence to show how BA.5 compares, though.

In many Western countries the death rate among those with covid is indeed similar to that for the flu. Omicron kills 35 of every 100,000 infected people in Britain, a much lower rate than that of the Wuhan strain. But this dramatic fall in lethality has little to do with how the virus has mutated. Rather, it is down to more people having antibodies against covid, acquired through some combination of vaccination and infection. China's under-vaccinated population has fewer antibodies, and its jabs are less effective than those in the West at preventing severe disease.

The other big reason that covid has become less lethal is that there are now better treatments. Paxlovid, an antiviral drug, cuts the rate of hospital admissions among the most vulnerable covid patients by almost 90%. Dexamethasone, a cheap steroid, significantly reduces deaths among the most ill patients. Whether China has enough of such drugs, or a system for getting them to patients in need, is unclear.

Infected people in China are better off today than they would have been during the early days of the pandemic. But covid is still worse than the flu in the country. That will be true until China reaches the levels of immunity seen in the West, and until it has enough drugs and intensive-care beds to treat most who need them. ■



Don't believe the hype

Modelling the epidemic

Lives on the lines

Our model shows that the death toll from covid in China could be massive

MOДЕLLING A COVID-19 epidemic anywhere is difficult. But it is especially hard in China, where the data are often unreliable. Take the official case numbers, which suggest the current outbreak is waning. It is clearly not. No one knows the true state of the epidemic in China.

But there is enough data available to produce an informed estimate of where things are heading. So we have built a model that calculates the trajectory of China's

outbreak under different scenarios based on estimates of the rates at which people become infected, get sick, recover or die (known as a SEIR model). The results are shocking. If the virus is allowed to spread unencumbered, we predict that 1.5m Chinese people will die.

Our model builds upon work by Jun Cai of Fudan University and others. We account for how people of different age groups are affected by covid and how pro-

tected they are by Chinese vaccines. We looked at when the jabs were administered and assumed that they wane at the same rate as Western ones, though there is little evidence on this. We take China at its word when it comes to vaccination rates and intensive-care-unit (ICU) capacity because there are no alternative statistics.

Our model offers scenarios, not forecasts. The first, referenced above, is the most grim. About 96% of the population would catch the virus in the next three months. The demand for ICU beds would quickly exceed the supply. People over the age of 60 would account for 90% of the deaths. The economy would suffer, too. Nearly 2% of the working-age population would be sick and symptomatic at the height of such an outbreak.

At the other end of the spectrum is a scenario where 90% of the population is boosted and there are enough antiviral drugs to treat 90% of cases in people 60 or older. Had the government prepared in this way it could have lifted all restrictions and still kept the death toll under 72,000.

Our worst-case scenario is in line with estimates elsewhere. Wigram Capital Advisors, an investment firm, projects 1m covid deaths in China over the winter. It used a similar model with different assumptions. Before China lifted its restrictions, Airfinity, a data firm, estimated that between 1.3m and 2.1m people would die if China ended its "zero-covid" policy. They simply took the outbreak in Hong Kong earlier this year and scaled it to China's population, with a range of 25% in either direction.

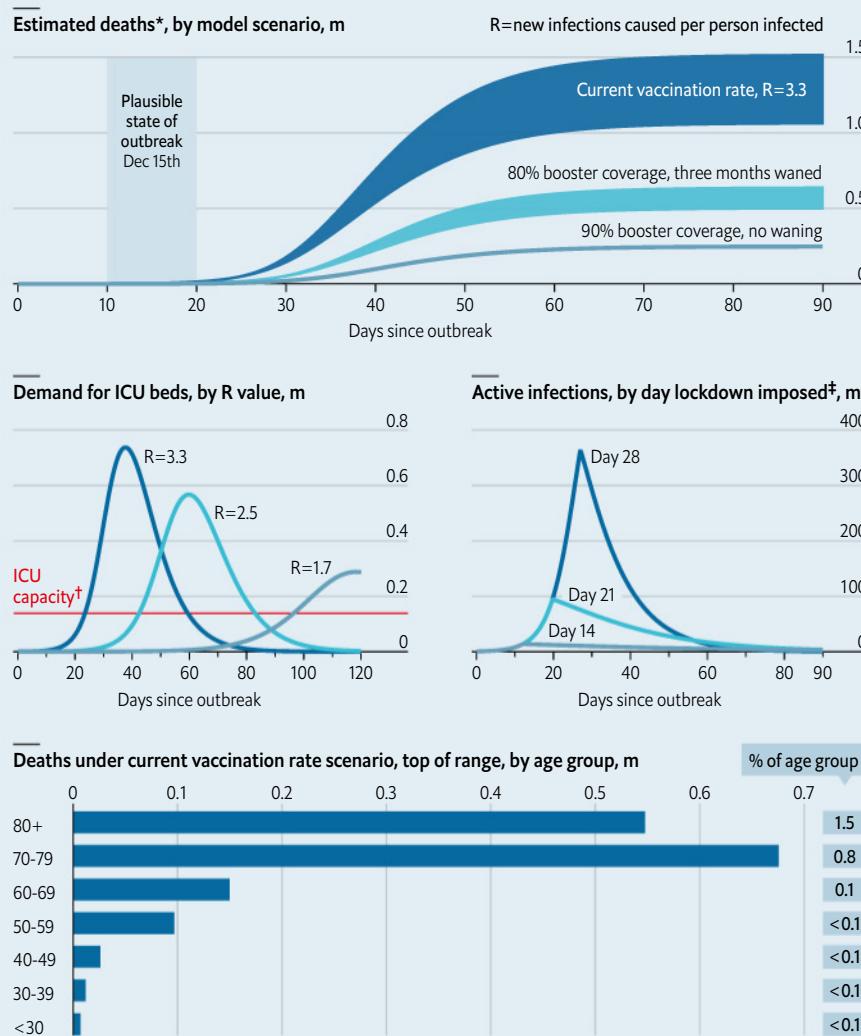
Even in the face of such dismal projections, new lockdowns seem unlikely. But people are taking steps, such as masking and staying at home, to "flatten the curve". That might spread cases over time, easing the pressure on hospitals. If such steps reduced by a third the reproductive rate of the virus (known as R), the death toll would fall to 1.3m. If the government used that time to jab people and stock up on antiviral drugs, even more lives could be saved.

There is much we still don't know. For example, the government claimed this month to have 138,000 ICU beds, more than double what it had recently been saying. That is an unbelievable increase. Nor is it clear exactly how much ICU access affects mortality rates (we assume that getting an ICU bed doubles the chance of survival for those who need one). Then there are covid drugs, which could prevent hundreds of thousands of deaths. Whether or not China has enough is unknown. Lastly, the sub-variant hitting China is still being studied.

All these factors could throw off our estimates, which will anyway be hard to judge. China is likely to hide the true toll of covid. So many preventable deaths do not chime with the Communist Party's self-styled image of infallibility. ■

Big wave modelling

China, covid-19, SEIR model



*Top of range assumes current ICU capacity and that ICU treatment when needed doubles survival probability; bottom assumes all receive adequate care

†As claimed by the Chinese government ‡Assumed to be effective, reducing R to 0.9

Chaguan | Xi Jinping's covid retreat

The Communist Party prepares to spin its way out of a rout



BORN AS AN underground movement, the Communist Party of China prefers to advance by stealth, revealing its ambitions only once it feels confident of success. True to its guerrilla roots, it is still more secretive in retreat. Whenever failures loom, a familiar response may be expected. Party leaders fall silent, propaganda takes a flag-waving turn, statistics become even less reliable than usual and security is tightened. These evasive manoeuvres can be seen now, as China abandons its “all-out people’s war” on covid.

As Chaguan writes this, it has been over a month since China heard fresh virus-fighting orders from its supreme leader, President Xi Jinping. In his last reported words on the subject, on November 10th, Mr Xi told the Politburo to stick “resolutely” with his costly containment strategy of “dynamic zero-covid”. Mr Xi’s absence from the front lines is all the more striking because in 2020, after China’s success in smothering an initial outbreak in the city of Wuhan, the party declared him “commander-in-chief” of this people’s war. Proud of the efforts of hundreds of millions of Chinese who stayed indoors to break chains of virus transmission (and gleeful at proving doubting foreigners wrong), official media declared that defeating a fierce, invisible enemy like covid requires the strong leadership of the Communist Party. Pandemic chaos in such democracies as America was called proof of Western decadence and callousness. In September 2020, speaking by video link from within China’s closed borders, Mr Xi informed the United Nations General Assembly that “covid-19 is a major test of the governance capacity of countries.”

Several times this year, prominent scientists who called for debate on exit strategies from zero-covid were accused of wanting to “lie flat”, using a slang term for defeatism. Now China is abruptly learning to live with the virus. Various lines of propaganda messaging are being tested to explain this about-face, emphasising the party’s wisdom and the Chinese people’s exceptional capacity for self-sacrifice and discipline. On December 12th the *People’s Daily*, a party mouthpiece, framed the arduous zero-covid campaign as a period of sagely waiting for the severity of the Omicron variant to decline, and for effective vaccines and medicines to emerge. Alas the latest sub-variants, though indeed milder than Delta, are still quite capable of wreaking havoc in China, where only a small

minority are protected by recent doses of effective vaccines.

Party outlets have quoted citizens earnestly pledging to stay at home if they suffer mild symptoms so as not to “cause trouble for the country”, and telling reporters that after China’s government had taken care of them for the past three years, it was time they take primary responsibility for their own health and leave medical resources for those in need. After years of citing China’s low official death toll (which currently stands at around 5,200), the *People’s Daily* shifted to vaguer boasts about China having the lowest death toll of any major power. On December 14th, as waves of covid swept the country, authorities simply stopped reporting infections deemed “asymptomatic”, a hazy term sometimes used in China for any cases not confirmed with a chest scan.

Censors have moved to limit discussion of the change in policy. Indeed, pro-party nationalists have been silenced online for attacking critics of zero-covid, including fellow Chinese who staged protests in November in cities and on university campuses nationwide. Social-media platforms have banned the term *tang fei*, meaning “lying-flat mobs”, used by nationalists to criticise malcontents whom they blame for hastening zero-covid’s abandonment with their demonstrations. Despite this evidence of official sensitivity about anti-lockdown protests, it is misleading to draw a short, straight line between the most eye-catching demonstrations, such as one in Shanghai that saw young people chanting “Down with Xi Jinping”, and the ditching of zero-covid policies. Though shockingly sudden in its eventual execution, this is a retreat months in the making. Omicron variants are so fast-spreading that—as public-health scholars tell it—fresh waves of infections this autumn could only have been beaten back with nationwide lockdowns as harsh as those imposed on Shanghai’s 25m residents for more than two months this spring. The economic costs would have been brutal, and the country was exhausted. The police and security services know how to repress students chanting political slogans: many of those at protests in Beijing, Shanghai and elsewhere have been tracked down and detained or summoned by police for warnings. But discontent was broad, uniting such non-political types as migrant workers fleeing outbreaks in factories and homeowners rebelling against local lockdowns.

When scientific debate is disloyalty

The political stakes also changed after the 20th party congress in October, at which Mr Xi secured a third term and packed the Politburo Standing Committee with loyalists. An essay published in April in *Study Times*, a journal of the Central Party School, by Ma Xiaowei, the health minister, condemned “erroneous” thoughts of “co-existing with the virus”. Mr Ma cast zero-covid as a political imperative needed to avoid deaths, maintain social stability and thus ensure a successful party congress. Re-reading such words, it is reasonable to wonder if scientific debate about “zero-covid”, or even calls for a vaccine drive, had to be silenced before the congress, lest Mr Xi’s faith in containment be put in doubt.

To be clear, current events are a blow to Mr Xi. Even those stirring propaganda lines urging citizens to take personal responsibility for their health sit uneasily with his vision of pandemic-fighting as a chance to extend the party’s reach into every village and neighbourhood, and to mobilise the masses in a great collective endeavour. The party has recovered from routs before. Even now its chief ideologues will be discussing how to spin retreat as a victory, while censors and security services work to silence dissent. In the meantime, China’s people face a grim winter. ■



Labour

Picket lines and poké

CHICAGO AND LOS ANGELES

Unions are gentrifying. Can that reverse their decline?

THE WEATHER in Los Angeles on December 1st was unusually dull, with rain drizzling down and a chill in the air. This perhaps helped to explain the relatively low energy of the picketers on strike at UCLA's campus. Instead of listening to rousing speeches, graduate students milled around, chatting to one another. In the centre of the crowd organisers had set up a projector screen showing a video conference, which almost nobody was watching. And yet the strikers are clear about what they want. "People work 60-80 hours a week, you know, in total," said Sammy Feldblum, a geography PhD student among the picketers. "And all we're asking for is that we should be able to live in an apartment...reasonably close to the university. We're not asking for anything crazy."

The strike, which covers the entire University of California system, started on November 14th and has involved roughly 48,000 workers, mostly graduate students (who teach), teaching assistants and other non-tenured researchers. Tens of thousands of undergraduates have been left untaught. On December 9th, around 12,000 of

the strikers agreed to go back to work, after accepting a tentative agreement in late November. But 36,000 are still out. It is the largest single labour action to take place in America in years. But it is also an indicator of how trade unions are changing in America. Unions used to be associated with brawny middle-aged men standing outside factories. These days, the most active trade unions in America represent workers who have degrees and wear white collars (literally, in the case of university lab workers). As unions have evolved, their strategies have shifted too—and they hope to reverse decades of declining union power.

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Across America, membership of trade unions has never been lower—at least as long as statistics have been kept. In 1983, according to data from the Bureau of Labour Statistics, roughly a fifth of all workers belonged to a union; by last year, the figure had dropped to just 11.6%. That however conceals great variation within industries. In factories, unionisation has plummeted—just under 8% of manufacturing workers now belong to one, down from almost twice that proportion in 2000. In sectors such as education, however, where almost a third of workers are unionised, the share has stayed fairly stable. And in a few sectors, such as the making of tv and movies, unionisation rates have actually climbed. Thanks to that, the decline in union membership has slowed recently; some hope it may soon go into reverse.

Nowadays, 46% of union members have a bachelor's degree—against a figure of just 38% for the public in general. Women workers are slightly more likely to be unionised than men, and almost 40% of union workers are not white. According to Ileen Devault, a historian of labour unions at Cornell University, many of the most visible union organisers these days are young college graduates often working in jobs that may have white-collar social prestige, but do not necessarily come with white-collar wages or conditions. Unionisation has also spiked in sectors such as the media, or charities. Recent strikes have involved journalists at the *New York Times* and several other newspapers, as well as ➤

► workers at Activision Blizzard, a video-games developer. Often these strikes are as much about winning publicity and shaming a company as they are about imposing immediate economic losses.

In fact, that may explain why overall, though there are lots of strikes at the moment, they barely show up in official data. The BLS measures only strikes involving more than 1,000 members, but on that measure the number of working days lost to labour action in America has barely budged in recent years, and is far lower than it was even 20 years ago. Yet on other measures, unions look more active than they have done for ages. In the latest fiscal year, petitions for unionisation recorded by the National Labour Relations Board, a federal agency which regulates unions, increased by 53% over the previous year. The win rate for forming new unions is the highest it has been in a decade. And more workers are winning reinstatement for being illegally fired than in years. According to the firm in Illinois that makes them, sales of Scabby the Rat, a balloon often sported at labour protests and strikes, are as healthy as they have ever been.

Unions are also having more success politically. Polling by Gallup shows support for trade unions is the highest it has been since the 1960s, when many more Americans were members. Democrats increasingly argue that the decline of trade unions in America has boosted inequality—and want to reverse it. “The middle class built America and unions built the middle class,” said Joe Biden on December 9th, just a few days after being criticised for supporting a new law passed by Congress to stop railway workers from going on strike. That was a setback for the reputation of a president who Steven Greenhouse, a fellow at the Century Foundation, a leftish think-tank, says is nonetheless the most pro-union president since Franklin Roosevelt. With their narrow margin in Congress, Democrats have struggled to pass Mr Biden’s most ambitious pro-union laws. But that conceals some quieter political successes.

For example, under Mr Biden’s Inflation Reduction Act, subsidies for green-energy projects are higher for contractors who use “registered” workers and pay higher union-set wages. Those sorts of subtle incentives may help to explain why General Motors did not make an effort to stop the unionisation of a battery plant in Ohio on December 9th. At state and local levels, at least in Democratic states, unions have had even more success. In New York City, the construction of new hotels has all but ceased thanks to a law which, in effect, makes it impossible to build one without promising to use unionised labour. In California, new laws to make it easier to turn commercial property into housing passed

with union support—and developers will have to pay hefty union wages to benefit. Minimum wages of \$15 have proliferated, with roughly a dozen states and dozens of cities moving towards that level.

In November public-sector unions in Illinois pushed through a constitutional amendment that bans the state legislature from imposing a “right-to-work” law (under which workers cannot be forced to pay dues to a union even if they are covered by its contract). This also gives public-sector unions the right to negotiate with state and local government employers over very broad terms of “economic welfare”, and the contracts can supersede state law. Mailee Smith of the Illinois Policy Institute, a think-tank generally hostile to unions, says she fears left-leaning unions will use it to negotiate public policy in their contracts, bypassing legislatures. That may be overdone; yet it is clear that union leaders are delighted.

Will this be enough to turn unions round? The new laws mostly benefit long-standing unions; members in newly-unionising sectors may struggle to win benefits. Starbucks offers an example. Over the past year, hundreds of its stores have unionised. On December 9th, workers in Chicago rallied downtown with a drag performer and a Scabby to celebrate their efforts. Melissa Lee-Litowitz, who works at a Starbucks in Glenview, a suburb, says that persuading her co-workers to unionise was fairly easy. As covid-19 eased off and demand soared, their jobs had become far more stressful. But forming a union does not force the firm to negotiate with it. Starbucks has instead fairly ruthlessly pushed back—closing stores that have unions, and extending new benefits to workers at non-union stores. “We know we’re not going to get a contract overnight,” says Ms Lee-Litowitz. The main benefit for now is “joining a network of solidarity”, she says.

Yet according to Ms Devault, “it’s a time that’s really right for the growth of unions”. Labour shortages, supportive politicians and businesses that are worried about the bad publicity of union-busting all make a strong case for unionisation. Perhaps the biggest question is, what happens if they succeed? As popular as trade unions are right now, that might reflect the fact that, unlike in much of Europe, they are not yet disrupting the lives of most Americans. In Britain polling by YouGov showed support for trade unions dropping sharply earlier this year, after a wave of strikes that disrupted trains and airports. It is hardly likely to improve with the current wave (see Britain). When Democrats stop railway workers striking, it suggests they fear a similar effect. America’s new unions have a long way to go before they can cause such disruption—unless, that is, you are an undergraduate at UCLA. ■

The Twitter Files

Mr Musk's moderation

Twitter's internal communications are damning, but no anti-woke slam-dunk

“TWITTER”, ELON MUSK wrote on December 10th, on the website he owns and runs, “is both a social-media company and a crime scene”. Mr Musk’s crime scene is described in the “Twitter Files”, a set of screenshots of the social-media company’s internal communications. They were taken mostly from Slack, a workplace messaging app, and given to three freelance journalists by Twitter’s current staff, at Mr Musk’s direction. They relate to moderation decisions taken by Twitter before Mr Musk bought the company. The “Files” have been published in a hard-to-follow stream of at least 225 tweets over the past two weeks, the most recent set emerging on December 12th.

To understand what is important about the Files, it helps to be clear about what they are not. They are not a systematic examination of Twitter’s content-moderation choices. This has not stopped Mr Musk, and the journalists to whom he has given access, claiming that the files offer damning evidence of Twitter’s institutional bias against Republicans, driven by a staff who wanted to censor ideas and people who made them uncomfortable.

Perhaps the most important thing the Files do is demolish the notion that a centrally controlled entity can write down a set of rules to facilitate the control of a public digital space in which hundreds of millions of users send billions of messages a day. In reality the rules, like the discourse



Twitter's oversight board

they are meant to guide, are constantly shifting. Twitter's employees are seen scrambling to interpret and apply an ever-changing slew of rules to tweets which those rules do not quite cover. In a blog post published on December 13th in response to the Files, Twitter's former boss Jack Dorsey called this focus on centralised moderation rules his "biggest mistake". He wrote that the right approach was to build "tools for the people using Twitter to easily manage it for themselves".

Some of the screenshots are damning. They show Twitter employees using the thinnest of pretexts to block a *New York Post* story about material found on Hunter Biden's laptop (see Lexington) because the story was based on hacked material, only to see that justification unravel. They stick to their guns for a few more days, then do a U-turn, but the damage to their credibility is done. It is hard to argue that a set of employees who were more right-wing would have made the same decisions.

The section of the Files on the banning of Mr Trump's account, while titillating, tells a story that is almost identical to the account that Twitter published itself on January 8th 2021, shortly after the decision was taken. Mr Trump was banned for violating Twitter's policy against Glorification of Violence because of links between his social-media emissions and the actions of the January 6th rioters. One thing the Files do show is that this connection was made in the face of significant internal pressure to ban Mr Trump's account, but if anything they validate Twitter's own account of the ban; staff appear to genuinely believe that Mr Trump's tweets are inciting violence.

Both cases create strong emotional responses; the presentation of the Files is designed to elicit it. But they do not tell the world anything about biases that may have existed across Twitter as a whole. Indeed, a much more representative dataset, analysed by *The Economist* in November 2021, showed that the algorithm which chooses what tweets users see in their feeds tended to give tweets from Republicans a significant boost over those from Democrats. There was no conspiracy. Some Republicans just tweeted less accurate information. Less accurate information tends to attract more engagement online, because it allows more room for the sort of emotional language that drives attention.

There are straightforward ways for Mr Musk to provide good evidence of bias against Republicans (or to refute that idea). But when Alex Stamos, a well-regarded internet researcher, asked Mr Musk to allow access to data necessary to verify the claim that Twitter's rules "were enforced against the right, but not against the left", Mr Musk dismissed Mr Stamos as a propagandist. That was an odd response for a man engaging in a radical transparency campaign. ■

Catalytic-converter theft

Crimes of fashion

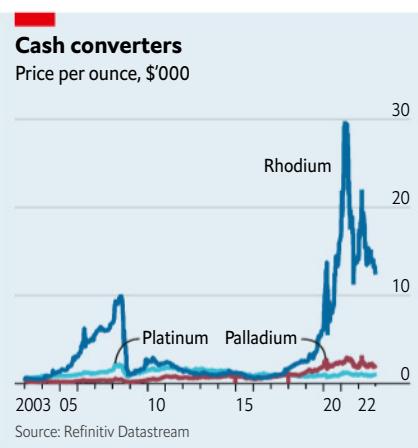
DALLAS AND SAN FRANCISCO

Why thefts of a once-obscure car part have soared

ONE SIGN of a crime's prevalence is when even police officers fall victim to it. So it goes with the spike in the theft of catalytic converters, a component attached to a vehicle's underbelly that helps process and control fuel emissions. In September thieves sawed-off catalytic converters from four trucks and vans owned by the San Francisco Police Department, which were parked outside a "special operations" bureau. Earlier this year, an off-duty sheriff's deputy was shot dead in Houston when he tried to stop thieves stealing his truck's catalytic converter.

It does not take a detective to piece together what is going on. Nationally, the theft of catalytic converters has rocketed, becoming one of America's fastest-growing crimes. Data from this year are not yet available, but are likely to show converter theft at record highs. In 2021 the National Insurance Crime Bureau, a non-profit that combats insurance fraud, tracked more than 52,000 reported incidents, about 13 times more than in 2019. The total is probably much higher.

The main reason for the spike is the rising value of precious metals that are contained in catalytic converters, including rhodium, whose price per ounce has quadrupled since January 2019 (see chart). It only takes a few minutes to remove a converter, and has been made simpler thanks to stronger battery-operated saws that are on the market, says Chris Crabtree, a retired police officer with Oakland Police Department. The covid-induced decline of tourism in urban centres also encouraged thieves to shift from stealing things inside cars to stealing bits of cars instead.



It is both illegal and loud to drive a car without a catalytic converter, but replacing a stolen one costs from a few hundred to several thousand dollars. Some victims are installing cages around their converters to make them harder to steal. In a cruel twist, the climate-conscious are punished most often. Hybrid vehicles often have two catalytic converters and can contain more precious metals, which has led to Priuses and other hybrid cars being targeted more frequently. Hardest-hit has been California, which has about a quarter of the country's hybrid cars and tougher emissions standards (contributing to most cars, not just hybrids, sold in the state containing more precious metals in their converters). In 2021 the Golden State accounted for 37% of catalytic-converter thefts.

These thefts are at least somewhat organised. In November the Department of Justice charged 21 people in five states as part of a catalytic-converter theft ring. People sold stolen converters to an auto shop in New Jersey, which in turn sold the extracted metal powders to a refinery for nearly \$550m. This year at least 22 states passed legislation, up from the dozen that did so in 2021, says Amanda Essex of the National Conference of State Legislatures. The solutions run the gamut, from requiring new rules and documentation to sell catalytic converters to increasing the penalties associated with their theft.

Some states, such as Maine, have started requiring car dealers to engrave identification numbers on catalytic converters. This makes it easier to trace them and prove that they have been stolen. In California two new laws, including regulations about who can sell them, will go into effect in January. A proposal to require identification numbers to be etched on converters was defeated after lobbying from car dealers, who said it would be expensive. But without ID numbers, it can be difficult to prove beyond a reasonable doubt that someone in possession of catalytic converters has stolen them, says Gregory Totten, chief executive of the California District Attorneys Association.

Despite the flurry of new laws, the thieving continues. A law in Texas passed last year places some restrictions on the sale of catalytic converters and increases the punishment, so now thieves steal them in Texas but sell them in states where sales restrictions are looser. "Perhaps at its core, it's a national issue," says Mr Totten, who thinks the federal government needs to get involved. One proposed bill, called the Preventing Auto Recycling Theft (PART) Act, would require identification numbers to be etched on converters and establish stealing them as a federal offence. Already the bill enjoys bipartisan support, suggesting that converter theft may make for some hybrid political alliances. ■



Pursuits

Chop chop

APPLETON, WISCONSIN

Axe-throwing may be the friendliest new sport in America

ABOUT 7,000 MILES from the other World Cup, an army of supporters and athletes, most of them bearded, descended on Appleton, Wisconsin, earlier this month armed with axes. Unlike the football equivalent, no allegations of irregularities were made regarding the choice of site for the World Axe Throwing Championship. Also, in contrast to Qatar, alcohol is encouraged. “One or two beers is perfect to calm the nerves,” advises one athlete, “though when you see two bulls’ eyes you know you’ve gone too far.”

Axe-throwing is best known as a fun bar activity for bachelor parties and team-building get-togethers. “Divorce and break-up parties are definitely growing,” says Steven Greene, who runs a venue in a mall in upstate New York. “You put a picture of the ex up and just let them loose.” (Most such bookings are by women.) It is also a popular first date, apparently.

Revenue across the industry is about \$215m a year and growing, estimates Mario Zelaya, of the World Axe Throwing League (WATL), America’s largest. Recreational axe-throwing—now taking place in around 600 venues across the country—brings in most of the cash. But the heart of the game is competitive throwing. Through WATL alone, over 20,000 throwers gather weekly at 324 “axe houses”, up from a few hundred at 16 venues in 2017.

At the World Championship, guys obsess about elbow positioning, foot stance, grip, and the benefits of cottonwood over

poplar. Most do not take themselves too seriously. “It’s a chance to have a lot of fun, especially when you get to play with your son,” says Jason Norris, a white-bearded man with twinkling Santa eyes from South Carolina, as the loudspeaker in “Butcher Hall” announces “The Ginger Assassins versus the Axecutioners, lane three.”

Sportsmanship and respect are carved into the game. Opponents tap axes before each round. Strict rules restrain player and audience behaviour. In the semifinals, with thousands of dollars on the line, the defending champion at one tense point called for a “second” (a second judgment) because he thought the judge had awarded him too generous a score (he had). The crowd went wild.

Leagues have been a lifeline to many. “I get to throw sharp stuff into wood and drink beer with friends, what’s not to like?” says Dean Cooper, a retired police officer from Texas who says the sport has helped him cope with his post-traumatic stress disorder and anxiety. When he needed an expensive pacemaker, the axe-throwing community pulled together to organise a charity event. “They literally saved his life,” says his wife. A foundation, “Throwing it Forward”, raises funds for struggling members who need help.

Mr Zelaya is determined to foster the sport internationally and eventually make it Olympic. But he is proudest of the difference leagues have made to throwers’ lives. During covid many built targets in their garages or gardens; there was even a virtual league (“QATL”) to ensure that they remained connected. “It’s been such a good stress-release for him,” says Tammy Cox, from North Carolina, about her husband Brian’s newfound hobby. It has made him new friends, too.

Male bonding is clearly a big part of the appeal. Throughout the tournament there are bear hugs. T-shirts offer “free hugs”, and one of the award winners is recognised for being “an especially good hugger”. As he puts his arm around a fellow thrower, Jason Kearney, from Got Wood Axe Throwing, in Oklahoma, says “You don’t just make friends here, you make brothers.” Ray Dales, from north Georgia, says it reminds him of the camaraderie of being in the army. Mr Zelaya has recently noticed an increase in veterans.

This is particularly good news for American men, who have seen a sharp decline in friendship groups. Those involved in organised community activities, such as bowling leagues or religious groups, weather adversity—such as unemployment—better. And regularly taking part in social activities can reduce cognitive decline by nearly half and increase life expectancy. Men, it seems, are more likely to form friendships while doing an activity together, whereas women are more likely

to do so “face to face”. Axe-throwing “duels” show this male tendency in practice. “It’s just been the best thing ever to spend time by my dad’s side like this,” says Karson Norris, one of several father-son duos.

Not everyone in the sport looks like a Viking, and the sport’s governing body is focused on increasing membership among women, ethnic minorities and children. About one in ten of the 477 participants at the World Championship were female and two participants were 14. There is no upper age limit; the youngest league member is eight and the oldest 79. The handbook includes guidelines on throwing from a wheelchair; several clubs run leagues for people with learning disabilities. “We have everything from microbiologists to exhibitionists,” says Brandon Johnson from Texas. “Everyone is welcome.” ■

Squeegee

Or else

BALTIMORE

A city experiments with paying people to stop being annoying

IN 1993 Rudy Giuliani won New York City’s mayoral race by promising to crack down on crime. The former prosecutor vowed not only to shackle murderers and rapists, but also to rid the city of “squeegee men” who, sometimes menacingly, washed car windows for cash at red lights. The new mayor’s cops took to the streets and by the late 1990s the men were gone.

Baltimore did no such thing. There, it has long been teenagers who squeegee, ditching school to make ends meet. The city has for years tolerated “squeegee kids”—poor black boys as young as eight years old—leaping into rush-hour traffic. But sentiments changed when a 14-year-old window-washer fatally shot an aggravated driver in July. Commuters now take circuitous routes, afraid of what the boys will do if they refuse service. More than ever, squeegee politics are the talk of the town.

The mayor has intervened. From January squeegeeing will be banned at six of Baltimore’s busiest intersections, and vans will pluck squeegee workers off street corners and return them to school. More contentiously, the city will pay older squeegee kids \$15 an hour to work or enroll in job training instead of washing windows.

Baltimore is not the only city experimenting with cash incentives. San Francisco gives teenagers who lash out in school \$500 a month if they sign up for mentoring and stay far from trouble. Atlanta offers stipends for “water boys”, who sell bottled water in traffic jams, to give up their gig ►

► and attend summer classes.

Some think this a bad idea. A former Baltimore police commissioner said paying squeegee kids to stop amounts to extortion. Larry Hogan, Maryland's outgoing governor, called for "crackdowns, not handouts". But getting kids off the streets is not simple. Squeegeeing is technically panhandling, which in 2015 the Supreme Court ruled is protected under the First Amendment. Previous attempts to criminalise it were blocked by the courts.

The mayor's less hawkish strategies may not work. The evidence on whether job-training programmes keep kids out of trouble is mixed. Even enlisting teenagers could be hard. Squeegee kids working the city's main arteries told your correspondent that they make \$200-300 a day wiping windows. On a hot summer day they can make as much as \$600. After taxes, an eight-hour work shift at \$15 an hour would yield just a fraction of that. Some, however, would take the pay cut for a stable job. Squeegee work is gruelling. Drivers sometimes pull guns on the kids. "It's as rough as trapping," says one, referring to the perils of selling drugs.

Even if the plan diverts some teenagers, as long as squeegeeing remains profitable they will be replaced by others, warns Philip Cook of Duke University. Suppressing demand may be the best way to curb the practice. But some locals want to encourage the young folk who, unlike many of their peers, go after money legally. Many come from violent neighbourhoods and are years behind at school. Despite being adolescents, some of them are bringing up toddlers. "These kids are entrepreneurs," says Faith Leach, the mastermind behind Baltimore's plan. The city is trying to tap into that. But as long as drivers reward the hustle with cash, Baltimore's boys will continue to soap up windscreens. ■



The shadow economy

Vaping and health

Smoke and mirrors

WASHINGTON, DC

The possible unintended consequences of anti-vaping policies

E-CIGARETTES, also known as vapes and by brand names such as Juul, are battery-operated devices that allow users to inhale nicotine without lighting a cigarette. They were introduced to America in 2006. According to the Food and Drug Administration (FDA), more than 2m high-school pupils (about 14%) reported using e-cigarettes in 2022. The FDA and others are trying to work out how to regulate them. The result may be a textbook example of unintended consequences.

Though e-cigarettes are much less harmful than traditional cigarettes, their effect on health can still be serious. Vaping has been associated with a higher risk of asthma and chronic obstructive pulmonary disease. E-cigarette exposure may be particularly harmful for young adults—there are fears that it can harm brain development and trigger a lifelong addiction to nicotine. Thirty states tax e-cigarettes and all states ban sales to minors.

One way to cut e-cigarette consumption is by imposing a tax. A study by the Centre for Health Economics & Policy Studies at San Diego State University found that a \$1 increase in e-cigarette taxes is associated with a 14-26% decrease in vaping among high-school pupils. Unexpectedly, the tax increase seems also to temper teenage alcohol consumption. One in ten teenagers reported binge drinking (four or more drinks for women, or five or more drinks for men, within a few hours at least once in the previous month). According to the study, a \$1 increase in e-cigarette taxes is associated with a 10-11% reduction in teenage binge drinking.

Drinking and driving is especially deadly for young people. Young adults (aged 16-20) who drink and drive are 17 times more likely to die in a car accident. The study found that increasing e-cigarette taxes reduces this, too. A \$1 rise in e-cigarette taxes brings a 10-14% decline in the number of alcohol-related traffic deaths per 100,000 among 16-to-20-year-olds.

Smoking and drinking tend to go together. Teenagers who drink are twice as likely as others to light up. One study found that raising the drinking age from 18 to 21 in America reduced smoking among the affected age group. It works in reverse, too. Raising taxes on cigarettes has been found to taper teenage drinking. So surely lawmakers should rush to implement an e-cigarette tax? The answer is not so simple.

Many smokers use e-cigarettes to reduce harm from their habit. Some also use e-cigarettes to quit traditional cigarettes. A review of 78 studies mostly from America, Britain and Italy found that people are more likely to stop smoking for at least six months when using nicotine e-cigarettes compared with other methods. England's National Health Service (NHS) encourages e-cigarette use for quitting smoking. A tax increase on e-cigarettes, or an outright ban, could encourage smokers to switch to traditional cigarettes. A separate American study found that a \$1 increase in e-cigarette taxes reduced daily vaping but increased cigarette smoking in young adults.

A good e-cigarette policy would discourage young adults while encouraging cigarette smokers to use them for quitting. Requiring a prescription for e-cigarettes could help. The NHS announced in October 2021 that it may do just that. But Catherine Maclean, one of the San Francisco study's authors, warns that this could also have unintended consequences in America. Requiring a prescription could push e-cigarette users and young adults towards regular cigarettes or illicit vaping products.

Limiting e-cigarettes could also spur drug use. Raising the drinking age in the 1980s slightly increased marijuana smoking among young people. Raising the price of vaping could do the same, especially in states that have legalised the drug.

Ms Maclean recommends stacking taxes so that the more harmful products are taxed at a higher rate than their less harmful substitutes. Young people tend to be cash-strapped, so even a small tax increase could deter use. Tighter regulation is also a possible answer—Britain and the European Union regulate the amount of nicotine in e-cigarettes. "Policymakers need to think beyond a targeted outcome and think more broadly," says Ms Maclean. ■



Late night feelings

Lexington | The hunted

Republicans should leave Hunter Biden to his painting, and the Justice Department



EVERY PRESIDENTIAL family is unhappy in its own way. But never have the emanations and consequences of that unhappiness—and the question of which is which—been so concentrated in one person as they are in Joe Biden's son Hunter: The bereavement of the Lincolns, the dealmaking of Jimmy Roosevelt, the addictions of Betty Ford, the renditions of "Mustang Sally" by Roger Clinton, the nepotistic climbing of the Trump offspring—Hunter Biden offers his own searing versions of all of these.

And never has such unhappiness been so pointillistically exposed. More than 200 gigabytes of data containing Mr Biden's texts, photos, videos and financial records fell into the hands of his father's political opponents just before the 2020 election. In addition to such innocent if intimate fare as pictures of his children and of his dying brother, the trove included images of Hunter Biden smoking crack and having sex, and emails in which he did business with Chinese and Ukrainian firms.

Yet this drama has been surprisingly easy to ignore, particularly if your politics and media habits lean left or you are the sort of gentle soul who prefers not to ogle train wrecks. That is about to change. Once Republicans take control of the House next month and start their promised investigations, you will be hearing the name Hunter Biden often. This is a good moment to brush up on some details, to consider the reasons it has been possible to evade them, and to ask, when it comes to a president's relatives, what should really matter.

Family success and tragedy placed Hunter Biden in the public eye from infancy. His earliest memory, he has written, dates to 1972, when he woke up in the hospital beside his elder brother Beau, who was saying to him over and over: "I love you." The boys had been gravely injured when a truck hit their car as their mother, Neilia, was driving them and their baby sister, Naomi, to buy a Christmas tree. Their mother and sister were dead. Joe Biden, just elected to the Senate, was sworn in at his sons' bedside.

While Beau would grow up to be the family's nonpareil, Hunter—his mother's maiden name—was in and out of trouble, drinking too much from an early age. After graduating from Yale Law School he eventually chose to be a lobbyist, a trade in which his name, nauseatingly and it may yet prove illegally, helped him

make millions. After Beau died in 2015 of a brain tumour, Hunter's life unravelled. In the spring of 2019, as his father was preparing to run for president, Mr Biden, then living in Los Angeles, gave interviews over the telephone to the *New Yorker*. The resulting profile supplied shocking details about his descent into crack, a bleak affair with Beau's widow, and divorce as well as his dealings with Burisma, a Ukrainian gas firm.

"I knew what the story would really do: inoculate everybody else from my personal failings," Mr Biden wrote in his autobiography, "Beautiful Things", published in 2021, after his father was sworn in. No "opposition press", he wrote, would be able to up-end the campaign with a scoop about his behaviour. (In fact, as the autobiography showed, Mr Biden withheld a lot, and the data breach revealed even more.)

Mr Biden succeeded in making his degradation seem old news when his data was exposed in the month before the election. Further, burned by their credulity toward Russian meddling before the 2016 election, big news organisations and social media platforms were primed to suspect such a data dump as fraud. Their reticence spawned secondary conspiracy theories on the right about media collusion with the Bidens. Donald Trump is probably right that the response would have been different had one of his own children been the focal point. (Fox News, which has obsessed over Hunter Biden, would then have covered the story differently, too). But that is not much of a scandal: the initial caution was prudent, and the mainstream press, as opposed to the tabloids, generally treads carefully when it comes to a president's relatives.

Leftish publications did eventually verify some of the data and elaborate upon the extent of Hunter Biden's fortune-hunting in Ukraine and China, as it became clear the Justice Department was stepping up an investigation into whether Mr Biden failed to report some foreign income. Nothing has come to light to suggest that Joe Biden was profiting from or deliberating enabling his son's dealings, the kind of link that would torpedo his presidency.

Sort-of ordinary people

Hunter Biden, remarried and living in Malibu, is pursuing the life in the arts that, he has written, he always wanted. His latest show of paintings in New York includes a series he calls Haiku, pretty representations of flowering plants that are more spare than his previous work. His paintings sell for up to \$225K; buyers' names are kept confidential, including from Hunter Biden, in an attempt to pre-empt further suspicions he is peddling chances to buy favour with his father. On a recent Friday afternoon, the gallery owner, Georges Bergès, puzzled over the criticism of his client. "His story could be a really positive, redemptive story that would help people," Mr Bergès says. "He is America, whether it's addiction, or any of that—he is who we are."

That is taking things a bit far: most family woes do not come in the form of millionaire crack-smoking lobbyists. Yet Mr Bergès' observation does speak to why Republicans would be wiser to leave Hunter Biden's troubling record with the Justice Department, where a Trump appointee is leading the investigation. History suggests Americans judge presidents on other grounds than their prodigal relatives. "I don't know what to do," Mr Biden says, imploring his wayward son to get help in a voicemail from 2018 that was leaked along with the rest of the data. "I know you don't either. But I'm here no matter what you need. No matter what you need. I love you." Voters have private heartaches of their own, and they seem to feel presidents are entitled to them, too. ■



Argentina

The agony of Peronism

BUENOS AIRES

A once-dominant populist movement is at its lowest ebb

HOUSED IN A neo-hispanic mansion in Palermo, a posh neighbourhood in Buenos Aires, the capital of Argentina, the Evita Perón museum tells the story of the birth of Latin American populism as a mass movement. In grainy newsreels, Eva and Juan Perón (pictured) address multitudes in the Plaza de Mayo, the city's main square. One reel shows a demonstration by workers on October 17th 1945 that secured the freedom of Colonel Perón, as he then was, after a brief imprisonment—events that would propel him to victory in a presidential election.

Perón pledged that he would “place myself at the complete service of the true Argentine people”. Eva Perón insisted: “I want nothing for me. I only want to be Perón’s shield and my people’s flag.” In her last public speech before dying of cancer aged just 33, she declared: “I will always do what the people say.”

Such are the building blocks of populism. For a start, it requires charismatic leadership, to which absolute loyalty is owed. It helps, too, to invoke the notion of

a “true people”, and of an enemy that opposes them—the “oligarchy” and the United States in the case of the Peróns. A dash of drama is added to the mix; Eva is recalled as a tragic victim. Combined with this was their commitment to social justice: the eight-hour day, wage increases, paid holidays and welfare schemes.

It was a successful formula. Perón was overthrown by a military coup in 1955. But the movement which he called Justicialismo and everyone else calls Peronism has, with many twists and turns, dominated Argentina’s political life ever since. It is still in power, as it has been for 16 of the past 20 years. And it has been copied, with varying degrees of success, across Latin America.

Yet Peronism is now at perhaps its lowest ebb. The energy, grace and teamwork of Argentina’s footballers find no echoes in its government. Alberto Fernández, Argentina’s president since 2019, heads a weak, divided and failing administration. October 17th, the Day of Peronist Loyalty as it is dubbed in tribute to that 1945 demonstration, saw three rival commemorations in

2022. Mr Fernández did not attend any of them. Nor did Cristina Fernández de Kirchner (no relation), the vice-president and the most powerful figure in Peronism since the death of her husband, Néstor, in 2010. Mr Fernández and Ms Kirchner go months without speaking to each other.

Ms Kirchner has her own problems. On December 6th a federal court convicted her of defrauding the state on public-works contracts worth \$1bn and imposed a six-year jail sentence and permanent disqualification from public office. She claims that, like Evita, she is a victim. In her case she claims that a “judicial mafia”, the media and Mauricio Macri, the conservative president between 2015 and 2019, are determined to drive her out of politics.

Fading power couples

Others note that while they were politicians she and her husband amassed a fortune of \$10m, which she declared to the anti-corruption agency when stepping down after eight years as president in 2015. She says she will appeal the verdict. But she also surprised her followers by saying that she would not seek to run for office in the general election due in October 2023. That may be a ruse. But it may also reflect her dwindling public support.

Peronism is also out of ideas, as Argentina’s chronic economic crisis highlights. Mr Macri tried but failed to stabilise the economy he inherited after a decade of overspending by the Kirchners. Mr Fernán-►

dez's government has tried only half-heartedly. He forced through approval of a \$44bn loan from the IMF that is essential to support the peso but requires tighter monetary and fiscal policy. Ms Kirchner's allies voted against the IMF agreement, requiring the government to rely on the opposition. She blocked moves to cut indiscriminate subsidies for electricity, gas and public transport which add to the deficit. She half-relented when the peso plunged in July, consenting to the appointment of Sergio Massa as economy minister with a mandate to implement the IMF agreement.

Today the economy is held together by a battery of price and exchange controls. Even so, inflation will be close to 100% this year, and in the (tolerated) black market the peso is worth less than a quarter of its value three years ago. The government lives from week to week. Some 37% of the population are poor, up from 28% in 2011, according to CEDLAS, a think-tank, using a poverty line of 120,000 pesos a month for a family of four (\$698 at the official exchange rate or \$381 at the unofficial rate).

Peronism's decline is interwoven with that of the country as a whole. "Peronism is obviously the main culprit for the situation of Argentina," Eduardo Duhalde, a former governor and president from the movement, says bluntly. "Today we're in our worst moment."

In 1914 Argentina was one of the ten richest countries in the world, albeit a very unequal one. In the mid-1970s it was still a predominantly middle-class country. No longer. The past half-century has seen underlying decline punctuated by temporary rebounds (see chart). In the 1990s Carlos Menem, a Peronist president, adopted free-market policies and capital flooded in for a while. But a fixed and overvalued exchange rate, combined with loose fiscal policy, culminated in economic and financial collapse in 2001. A commodity boom came to the rescue under the Kirchners, until 2012. Then distortions kicked in.

The problem is that populism generates expectations that it cannot meet. There are

two consequences. Mr Fernández's government, like several of its predecessors, finances itself partly by printing money. Long experience means that Argentines distrust the peso. All this generates inflation, which the government masks with multiple exchange rates, offering cheap dollars for selected imports and discriminating against exports. A second problem is that it shields vested interests—such as uncompetitive industrialists and union barons—who receive unaffordable subsidies and privileges, prompting a chronic fiscal deficit.

Economic decline has altered society and forced Peronism to adapt. Perón himself was a fan of Benito Mussolini but also of the British Labour Party. He had a pragmatic streak. He forged Peronism from fascism, the labour movement, the Catholic conservatism of the local bosses in Argentina's backward northern and western provinces and the armed forces (though they would later turn against him).

But today Argentina is very different. It is more secular. After the abuses of the military dictatorship of 1976 to 1983, civilian governments slashed the army's size and budget. And the unions are weaker, too. For the past 15 years almost all net job creation has been in the informal sector, according to Juan Luis Bour of Fiel, a think-tank.

Peronism has survived by organising and representing the informal economy, through social movements and a powerful clientelistic network in the poorer suburbs of cities. These Peronist social movements are now divided, with some supporting Mr Fernández, others Ms Kirchner and some leaders closer to Pope Francis, who was previously the archbishop of Buenos Aires and was long a Peronist sympathiser.

But Peronism has always suffered from internal tensions. Loris Zanatta, an Italian political scientist who studies the movement, says that its abiding orthodoxy is nationalism: "It is not an ordinary political party but [instead] incarnates the essence of the *patria* (fatherland)." That religion of the *patria* has sometimes coexisted with a

more left-wing strand. Mr Fernández, for example, calls himself a social democrat and promoted a law to legalise abortion. Axel Kicillof, the governor of Buenos Aires province, is an heir to Ms Kirchner who retains some of his original leftism. Peronism "struggles for equality of opportunity in a very unequal country", he says. "The struggle for dignity is very important."

Under a powerful leader, Peronism's breadth can be the movement's strength. But under a weak one, it can become woolly. Ms Kirchner still has the ability to mobilise the poor. Mr Zanatta thinks that she wants to whip up enough support for her to remain in politics by posing as a victim. "She is harking back to Evita and her renouncing of the candidacy for vice-president in 1951," he says. But she has sought to divide rather than unite Argentines. Mr Massa represents a third, more liberal, strand in Peronism which was in power in the 1990s under Menem. As Kirchnerismo wanes, that strand may come back. But some think that Peronism might split.

Like inflation, it has long been there

Peronism is woven so deeply into the national fibre that it is hard to imagine it disappearing. Its religious quality emphasises emotion and redemption. "Peronists can make mistakes but we have to continue to be Peronists," says Sonia Manzoni, the leader of a small co-operative producing nursery plants that is part of the Movimiento Evita, a Peronist social movement, tucked in former railway scrubland close to affluent Palermo.

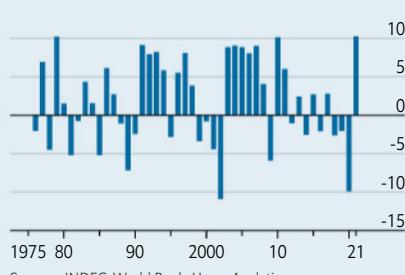
In the short term, Peronism's decline suggests that the centre-right opposition will win the election next year, provided it can overcome its own internal divisions and manage to see off competition from Javier Milei, a libertarian popular with the young. Some political scientists believe the opposition may win an absolute majority in Congress, which would allow it to impose the radical economic reforms that Mr Macri ducked. As well as cutting spending to eliminate the deficit and unifying the exchange rate, these include tackling vested interests. Such reforms could restore confidence in the peso, attract flight capital to return and, eventually, prompt growth. But "reforms have many losers in the short term," warns Eduardo Levy Yeyati, an economist advising the opposition.

For some that suggests the next government will have to build a broad coalition. It might have one thing going for it. "The crisis we're in generates a consensus for change which will allow us to achieve what in other periods wouldn't be possible," says Horacio Rodríguez Larreta, the mayor of Buenos Aires and on paper the opposition's strongest presidential candidate. The long populist cycle that began in 1945 might just be drawing to a close. ■

Messy, not Messi

Argentina, % change on a year earlier

GDP





South Africa

A bitter life for all

DURBAN AND JOHANNESBURG

The ANC is self-destructing. The collateral damage is destroying South Africa

LONDIWE MKHIZE walks through her unfinished home in Cato Crest, a poor part of Durban, South Africa's third-largest city. Concrete blocks lie wet from the rain that has fallen through roofless rooms. Completing the half-built house was the task of her husband, Siyabonga Mkhize. But he was shot dead in October 2021 when out campaigning to be a councillor for the African National Congress (ANC), South Africa's ruling party. It was too late to take his name off the ballot, so he was posthumously elected. In March the by-election to find a living replacement was won by another ANC candidate, Mzi Ngiba. Two months later Mr Ngiba was one of four people arrested for his predecessor's murder. (All deny the charges.) "He was a kind person," says Ms Mkhize of her husband. "But he was murdered for his choice of becoming an ANC politician."

Stories like Mr Mkhize's are surprisingly common. From 2000 to 2021 at least 418 political assassinations took place, most of

them in the past seven years. These typically involve competition for positions within the ANC. The murders are an extreme consequence of what it—and the country it governs—have become. The party that fought apartheid is now a patronage machine draped in revolutionary rhetoric. In a state where almost half of black South Africans are unemployed and where crime goes unpunished, it is grimly rational to kill to get a lucrative political job.

Over the past fortnight South Africans have been gripped by questions over the future of Cyril Ramaphosa. The president, who took office in 2018 pledging to reduce

graft, was briefly on the brink of resignation after a report by a panel of judges concluded there was enough evidence of his misconduct for MPs to consider impeaching him. The scandal in question is related to the theft of at least \$580,000 from Mr Ramaphosa's game farm, by unknown criminals. Questions have been asked about where the money came from and why it was hidden in a sofa. Mr Ramaphosa has a large fortune, legally earned, but the presence of so much cash on his property struck many as odd. The president says he has done nothing wrong, and on December 13th a majority of MPs voted against impeaching him, with all but a few ANC parliamentarians toeing the party line.

"Farmgate" is a plotline in a broader story, the next chapter of which begins on December 16th, when the ANC meets to elect its leaders. That story is the self-destruction of the ruling party and the collateral damage to South Africa.

The ANC was founded in 1912 to campaign against the exploitation of black Africans and the expropriation of their property. In 1948 its nemesis, the National Party, took power and introduced apartheid, a system of overt racial discrimination favouring whites. ANC leaders, including Nelson Mandela, organised occasionally violent opposition. In 1960 the party was outlawed and its members were driven underground or into exile. Three decades ➤

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► later, as white South Africans tired of being global pariahs, the apartheid regime unbanned the ANC. As soon as black South Africans were given the vote, the party became the government. Mandela preached reconciliation and "a better life for all".

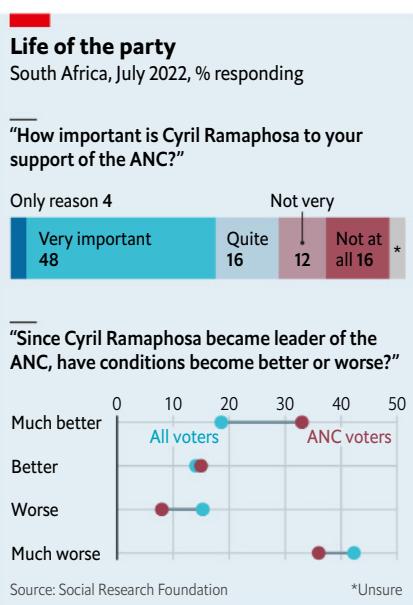
Some trace the ANC's misgovernance to its past. During the dark years when it was operating underground or in exile and was vulnerable to penetration by apartheid spies and assassins, it developed a culture of secrecy, paranoia and unaccountability as a survival mechanism. These traits are hardly a recipe for governing well or cleanly. "We thought the ANC would be the torch-bearer of revolution, and clean up the mess of apartheid," says Protas Madlala, an anti-apartheid activist. "Instead they've just looked after themselves."

But "the rot was not inevitable", argues Kgalema Motlanthe, an ANC veteran who briefly served as president between Thabo Mbeki and Jacob Zuma. Leaders after Mandela—including Mr Mbeki, Mr Ramaphosa and himself—did not do enough to stop graft, he concedes. Mr Mbeki lambasted looting in abstract terms, decrying the materialism of newly rich blacks, but did too little to stop it. His desire to create a black middle class by the "deployment" of party members into public jobs encouraged it. Once Mr Zuma became president, corruption hit new heights. Pundits spoke of "state capture": the systematic looting of public money by ANC bigwigs.

The rot that started at the top has spread downwards. Lethal battles rage over political jobs because they offer power to award tenders to cronies. "People who join the ANC now do so not because they want to help people, but to pursue their personal ambitions and business opportunities," says Nhlakanipho Ntombela, who, as head of elections for the ANC in the province of KwaZulu-Natal, is in charge of asking people to vote for the party.

For a while corruption happened alongside an improvement in the lives of ordinary South Africans. The murder rate, a proxy for violent crime, fell by more than half between 1995 and 2011. Unemployment fell for most of the 2000s. The ANC built a basic welfare state that provided millions of homes, as well as cash grants for mothers and old people.

But over the past decade corruption has exploded and living conditions have got worse. Real incomes for the top 5% grew more than twice as fast as the overall economy. For everyone else they were stagnant or rose only slightly. The murder rate is ticking up again. South Africans have spent twice as long in the dark because of blackouts in 2022 as in any previous year. Half of all running water is lost through broken pipes. The state has all but given up on many of its responsibilities. Those who can afford it generate their own electricity



and pay for private schools, health insurance and security guards. Or they emigrate. "Today the general public has very little faith and trust in the ANC," says Mr Motlanthe. "Slogans and ideologies only count if basic needs are being taken care of."

Mr Ramaphosa's supporters argue that, if re-elected as ANC president, he will lead a "renewal" of the party. They also point out that his narrow victory at the previous party conference hampered his presidency from the start; he had few allies in the ANC's National Executive Committee, including among its "top six", a sort of politburo (with all of the ruthlessness but none of the efficiency that word implies). If he wins convincingly this time, goes the argument, the president will have more time to govern. Allies say his strengthening of institutions such as the National Prosecuting Authority show he is a reformist at heart.

Mr Ramaphosa, for all his faults, is the best ANC leader the country can hope for. His main rival for the job, Zweli Mkhize, is implicated in an alleged scam involving the theft of money meant to fight covid-19. Paul Mashatile, who is running for deputy president of the party, has done little to suggest he would be an improvement.

Yet "renewal" is unlikely, for several reasons. Mr Ramaphosa is a cautious man, who would set up a committee to decide what to have for breakfast. Although Mr Zuma's acolytes are weakened, several nominees for the NEC are facing graft charges. The top six jobs will not be won by serious reformers, for such people are nowhere to be seen. They will probably be filled by nominees of provincial power barons.

Their growing influence reflects how the ANC is increasingly a rural party. As a result it has indulged "traditional leaders" and placated provincial party bosses. In return these bigwigs want policies that will

favour them ("special economic zones" are popular) and senior positions. They do not want renewal; they want deals.

Perhaps most important, the ANC is increasingly at odds with modern South Africa. It lacks an internal culture of democracy and individual accountability for its leaders. It seldom distinguishes between the party and the state. "The party's history left it ill-equipped to govern a liberal democracy," argues Ralph Mathekga in his book "The ANC's last decade". In it he argues that "bluntly, the ANC in its current state and South Africa's constitution are just not a very good fit."

The ANC is in decline. Its vote share fell from 66% at the general election in 2009 to 58% in 2019. Last year it won less than 50% of the vote nationwide at municipal elections. Asked how the party has done in by-elections since then, Mr Ntombela pauses and says: "We've been walloped." Mr Ramaphosa is still more popular than his party. If he does not lead the ANC into the next election, it would probably hasten the party's decline. In a recent poll by the Social Research Foundation, a think-tank, 48% of ANC voters said that Mr Ramaphosa was "very important" to their support for the party (see chart). Even if he does lead, the party may well win less than half of the vote in a general election for the first time.

The party's over

The decline of the ANC evokes mixed feelings among South Africans. Few will mourn its collapse. Yet many worry about what comes next. There are two main risks. The first is that in the short term, if Mr Ramaphosa is ousted, the pro-corruption faction of the party will use what time it has to loot without restraint. The second, over the medium term, concerns what might happen as South Africa enters a new era of coalition politics. (Under its proportional-representation system, if no party wins a majority of the vote, this is all but inevitable.) Coalitions could mean compromise and pragmatism. But, as is the case already in many city governments, they could also mean even more mouths at the trough.

Back in Durban Mr Madlala, the analyst of political killings, explains his sadness over the demise of the ANC. In the 1980s he was the first black man in South Africa legally to marry a white woman, an American he met when studying in Washington. Hundreds gathered near the church to wish them well. The next years were tough: the couple were forced to live in a shack in a "black area". When their first child was born his wife had to wrap the baby in blankets to obscure its dark skin if she went to places reserved for whites. But it seemed like the start of a new era, both personally and politically. "It's no longer there—the party we used to have," he now says. "Let them lose. I won't shed a tear." ■

Cattle in Uganda

Trouble down at the kraal

KOTIDO

Commercial cattle-raiding enriches some but can starve others

IN BAD YEARS, when the rains fail and the sorghum wilts, Maria Lodia would usually sell an animal to survive. But in January gun-wielding thieves stole her three cows, leaving her destitute. Since 2019 cattle-raiding has returned to the dry plains of Karamoja, home to 1.2m people in northeast Uganda. Robbed of their livestock and frightened away from their fields, the Karamojong had no safety net during dry spells this year. Local officials say that more than 2,400 people have died of hunger.

Like many of Africa's pastoralist regions, Karamoja is going through an uneven transition. Elders recall a time when cows were plundered for prestige or bride wealth. But in recent decades cattle-raiding has become big business. Stolen animals are trucked to distant markets, since urban demand for beef has grown. On the grasslands the ownership of livestock is becoming more unequal, as the big owners get bigger and poorer ones struggle—and go hungry. "In Karamoja your bank is a cow, it's a goat, it's a sheep," says Paul Komol Lottee, chairman of Kotido, one of the districts worst hit by violence. "If you don't have the three you will not survive."

In the 1990s and early 2000s raiders ran rampant in Karamoja. Thousands of cows were stolen. Others died of disease after being crowded into kraals (stockaded enclosures). The army eventually bludgeoned the raiders into submission. By 2010 cattle-keepers began to restock. Now the raiders are back. In Kaabong district

they have emptied 32 of 34 kraals, where cattle are meant to be kept safe. Locals blame several factors: the flow of guns across the porous border with Kenya; a covid-19 lockdown and a foot-and-mouth outbreak, both of which disrupted legal trade; and the failure of the police and army to recover stolen cattle, which made young men take the law into their own hands. Hundreds of people were killed.

In the search for illegal guns the army has rounded up thousands of young men, often on flimsy pretexts. In March a spokesman said it had killed more than 300 "warriors" during disarmament operations. The UN and the government's own human-rights commission have accused soldiers of extrajudicial killings. Former captives describe being tied to trees and flogged. Locals wonder whether some officers are profiting from the raids. How do truckloads of stolen cattle elude checkpoints? Why are army-issue cartridges sometimes left behind after raids? The army insists it is not involved.

The raids are starting to abate again, partly because of the army campaign, partly because there is little left to steal. In the 2018-19 season Karamoja's livestock provided \$444m of value to their owners, estimates the Karamoja Resilience Support Unit, a research group. Those benefits include meat, milk, ploughing and informal insurance (in an emergency you sell your last cow). Yet even before the latest wave of raiding, most households owned fewer than 3.3 "tropical livestock units" per person, equivalent to about five cows or 33 sheep. Below that threshold a family struggles to get enough calories from livestock, even if it grows some crops on the side.

Many Karamojong instead find casual work on farms, brew beer or drive motorbike taxis in the towns. Others scrape by in the economy of petty extraction, burning trees for charcoal or tunnelling for gold.

Auda Lokwang leaves her children at home from sunrise to sunset while she gathers firewood in the scrubland, exchanging it in Moroto town for *adakai*, the edible residue left after brewing sorghum beer. "You just have to endure," she says.

For generations, the Karamojong survived a capricious environment by balancing cattle-herding and crop cultivation. "Should the cattle die, there are crops," runs a traditional invocation. "If the crops do not grow, there are cattle." Without cows, they are now more vulnerable to rising food prices, voracious pests and a changing climate, which is making rainfall more erratic. Perhaps cattle-raiding has angered the gods, muses Loita Kume, an elder in Moroto district. Only when the bloodshed stops will the rains return. ■

Zimbabwe

Big brother will see you now

BULAWAYO AND HARARE

China is helping Zimbabwe build a surveillance state

REGISTERING TO VOTE in Bulawayo, Zimbabwe's second city, isn't easy. The only registration centre is two bus journeys from the most populous suburbs. Nationwide there are just 71 voter-registration centres, or one for every 216,000 people (though some mobile ones are operating ahead of a general election next year).

And this is not the only worry. Since 2018 Zimbabwe has collected fingerprints, photos, addresses and phone numbers to clean up the voters' roll, which was reportedly full of "ghost voters". This frightens many Zimbabweans, especially those belonging to the minority Ndebele ethnic group, much of which is concentrated near Bulawayo. In 1983 some 20,000 mostly Ndebele people were massacred by the army. Emmerson Mnangagwa, now the president, was head of the security services at the time. Now, people fear data collection "is a way to re-identify and target us," says Rodwin Sibanda of the Habakkuk Trust, an NGO in Bulawayo.

The ruling party, Zanu-PF, is not about to perpetrate another genocide. But it has shamelessly rigged elections for two decades, and many Zimbabweans fear it could abuse their data to intimidate them. Before an election in 2018 party thugs forced people to hand over their registration slips, telling them these would reveal whom they voted for. The same thugs have in the past burned the homes of those who voted the wrong way.

Zanu-PF has so ruined Zimbabwe's economy that it cannot pay teachers or ►

**The bank of reproducible assets**

nurses, or provide food to the almost four-tenths of people in the countryside who are at risk of starving. Yet it has found the wherewithal to build a snazzy surveillance apparatus with the help of China's communist regime. Since 2013 China has provided loans and grants worth at least \$239m to help develop NetOne, Zimbabwe's state-owned telecoms network. "There is a huge perception that because of the proximity of the Zimbabwean government to China, much of our critical infrastructure is run by China," says Otto Saki, a human-rights lawyer. Technicians for Huawei, a Chinese firm, have reportedly helped state-security agents in Uganda and Zambia snoop on government critics.

The government is keen to promote the idea that it is all-seeing. Take the case of Joana Mamombe, an opposition MP, and Cecilia Chimbiiri, an activist, who say they were abducted and tortured by state-security agents. Mr Mnangagwa claims they are lying, arguing that the government was "able to trace where they walked, slept and who they talked to". Such claims are "a clear example that the government has the necessary tools and the capacity to monitor people," says Nompilo Simanje of the Media Institute of Southern Africa Zimbabwe, an NGO in Harare, the capital. Moreover, the Citizen Lab at the University of Toronto has alleged that Zimbabwe used phone-snooping software from an affiliate of NSO Group, an Israeli surveillance firm. NSO says its software is meant to be used against terrorists, not activists.

Police and spies in many countries use similar tools. But in most democracies, which Zimbabwe still purports to be, their power to do so is constrained by privacy laws and independent judges. Zimbabwe has neither. A purported privacy law passed by the parliament last year established a snooping centre in the president's office with the authority to issue warrants to intercept communications. Mr Saki's research suggests that the centre was designed by Huawei, which did not respond to questions about its involvement.

Even bodies that are notionally independent have ties to the government. The electoral commission, which is run by a retired army general, has been accused of giving voters' data to Zanu-PF, which then urged them through text messages to vote for Mr Mnangagwa.

The government's ambitions coalesce in a huge new data centre, which was built with China's help. Its purpose is to suck up information from the government and from private firms, including banks. What this means in practice is murky. So far the state "is not technologically savvy enough" to implement wholesale China-style spying on dissidents, says Freeman Chari, a Zimbabwean activist. But, says Mr Chari, "this is where we are heading." ■



Corruption in Iraq

The elusive looters

A new prime minister vows to clean up the country. Few think he will succeed

THE PUZZLE for Iraq's kleptocrats was always how to spirit their stolen billions out of the country. Foreign banks have been wary of accepting large transfers from Baghdad. Taking piles of cash out by land is risky; Kurds closely watch the frontier with Turkey. Now there is a new conduit. A British security company, G4S, used to scrutinise cargo leaving Baghdad airport. But in his last weeks as prime minister, Mustafa al-Kadhimi approved its replacement with Biznis Intel, a company with no apparent experience of airport security. "It's very easy now to bring things in and out," says an airport employee. "A big amount of money is being smuggled out."

Iraq has long suffered under greedy rulers. Saddam Hussein treated the state's resources as his own. Since he was ousted by American troops in 2003, successive elected governments have been riddled with graft. Officials take cuts from contracts or hire ghost workers and pocket their salaries. Even so, a recent alleged theft is hard to top. Since September 2021 the country's tax deposits have been raided to the tune of 3.7trn Iraqi dinars (\$2.5bn), according to an investigation by the finance ministry cited by Iraq's new prime minister, Muhammad al-Sudani. Corruption on this scale helps explain why many of Iraq's 41m people do not have reliable water or electricity, even though their country is the second-largest oil producer in the Organisation of the Petroleum Exporting Countries (OPEC).

On paper the funds handled by the tax commission were paid out through five

shell companies, some set up by an Iraqi businessman, Nour Jassim. Investigators believe the funds were then distributed among a variety of politicians and officials demanding hush-money and bribes to facilitate the scam and to frustrate investigations. Such were the volumes traded that the dinar weakened against the dollar, while the cost of property in Baghdad's posher quarters rose. MPs and people in the then prime minister's office failed to sound the alarm.

"Vast underground networks of senior officials, corrupt businessmen and politicians operate in the shadows...and siphon off literally billions of dollars from the public purse," wrote Ali Allawi after resigning as finance minister in August in protest against government shenanigans. Since leaving office, Mr Kadhimi is thought to have moved to Europe. He and officials in his office have denied any wrongdoing.

Mr Sudani, the first Iraqi prime minister to have lived in Iraq continuously since the American invasion in 2003, has vowed to root out corruption. One investigator, suspecting that more shell companies will be uncovered, reckons that between a third and a quarter of last year's government budget of \$92bn has gone astray. Last month Mr Sudani spoke on television (pictured) between two pallets piled head-high with cash, which was in part recovered from Mr Jassim as he prepared to fly out of Baghdad in a private jet.

Mr Sudani has promised to recover the remaining cash. His advisers say he will seek to extradite former officials suspected of corruption who are now abroad, including some in America. After six weeks in office he is said to have purged around 900 officials, including civil servants and security officers. Friends of Mr Kadhimi say Mr Sudani is seeking to tighten his grip on his office by throwing allegations of corruption at his predecessor's circle.

It tends to start at the top

Few believe this will stop the rot. The legitimacy of Mr Sudani's new government is debatable, since it consists of factions that lost the general election in October last year and includes many of the groups that supped at the previous government's trough. The same MPs who voted to endorse Mr Sudani as prime minister also voted to remove Mr Allawi's successor as acting finance minister when he sought to publish the results of the investigation into the theft of tax revenues.

Mr Sudani has also launched a state-financed company to administer government projects. It is run by a caucus of pro-Iranian Shia militias known as the Hashd al-Shaabi (Popular Mobilisation Forces), whose political wings dominate Mr Sudani's coalition. After helping to defeat the jihadis of Islamic State, who conquered a

swathe of Iraq and Syria in 2014, the Hashd insists that its mission is to rebuild Iraq.

It has been allowed to create its own commercial firm. This is called al-Muhandis, after the deputy commander of the Popular Mobilisation Forces who was killed by the Americans in a drone strike at Baghdad airport in 2020, along with Qassem Suleimani, the commander of Iran's Islamic Revolutionary Guard Corps (IRGC).

Having won the upper hand in Iraq's factional fights over politics and security, the Hashd's leaders hope to gain sway over a chunk of the economy, including the oil industry and house-building, much as the IRGC has done in Iran. Al-Muhandis is bent on winning a string of fat government contracts. "It will kill what remains of the private sector," says Muhammad Koperly, a

lawyer based in Baghdad. Some fear that the new company will bind Iraq's economy ever closer to Iran's. Others doubt it will be effective. "It will be just another crazy fund for corruption," says a former official.

Mr Sudani seems loth to let the probe into the gigantic tax swindle extend to the upper echelons of his own government. On his watch Mr Jassim has been freed on bail and is thought to have fled abroad. Several of the tax-authority officials overseeing the transfers were appointed by Badr, a pro-Iranian party that is in the vanguard of Mr Sudani's ruling coalition, yet none of them has so far been charged. A former official doubts the new prime minister's sincerity. "They can't follow the leads because the whole house would come crashing down," he says. ■

bism can imply an erasure of their identity. Tamazight, the Berber tongue, was long relegated to second-tier status. It was only made an official language in 2011, part of a package of reforms rushed through to placate the public during the Arab spring.

It is a strange debate. If it had been Egypt, another north African country, that reduced Ronaldo to tears, no one would have hesitated to call it an Arab victory. Perhaps distance explains some of the disagreement. In Riyadh on the night of Morocco's knockout-stage victory, one Saudi called it a win for the entire Arab world, while another said he felt little affinity for a country as far away as Thailand.

Prejudice plays its part. The Moroccan dialect, known as *darija*, is widely mocked by other Arabic-speakers for being hard to understand. Moroccan women are often crudely maligned as prostitutes. A long-held stereotype in the Gulf suggests they use witchcraft to seduce innocent men: "Moroccan maids may spell trouble, warn some women," read one decade-old headline in a Saudi newspaper.

Modern Arab nationalism, which took form as the region emerged from centuries of Ottoman and European rule, has always been rooted in politics. It appeared on the pitch as well. The Moroccan squad unfurled a Palestinian flag after beating Spain. The gesture won an outpouring of support from many Arabs, for whom Israel's half-century occupation of Palestinians' land remains an injustice. It probably looked less noble to the people of Western Sahara, who have been occupied by Morocco for 46 years: a former victim of colonialism can also be a colonial power (and was once part of a Muslim empire that ruled much of what is now Spain and Portugal).

Israelis have been free to attend the tournament, though they are not normally allowed to visit Qatar. A fair number have expressed surprise at their frosty treatment from Arab fans. Since four Arab countries (Morocco among them) agreed in 2020 to normalise ties with Israel, many hoped the region had forgotten about the Palestinians. The World Cup has been a reminder that, even if many Arab rulers no longer care, many of their subjects still do.

Add one more contrasting note: the celebrations in Israel, by Jews of Moroccan descent, a reminder that the kingdom once had a vibrant Jewish community—and that less separates Israelis from their Arab neighbours than many wish to admit.

Talk of pan-Arabism can often feel dated, as it harks back to the heady nationalist days of the 1950s, or the grand caliphates of yore. Yet enthusiasm for Morocco's unlikely success shows that a cultural affinity still binds people in the region. Equally, though, the arguments over Morocco's place in that region show how identity is still used to divide rather than unite. ■

The World Cup

Of lions and pride

DUBAI

Morocco's unlikely World Cup success sparks a debate about Arab identity

THE SYMBOLISM was almost too much for a single football match. A former colonial power defended its title against the country it once occupied. Some members of one squad could just as well have played for their opponents in a clash of hyphenated identities. The underdogs embraced a symbol of regional struggle as their own, even as their countrymen argued about whether they truly belonged to that region.

In the group stage, this was a World Cup full of surprises. Saudi Arabia defeated Argentina; Japan beat Spain and Germany to emerge atop their bracket. By the semi-finals, though, the remaining teams looked mostly predictable: defending champions France, two-time winners Argentina, and Croatia, the runners-up in 2018.

Mostly predictable—but not entirely. Morocco won four of their first five games, becoming the first Arab or African squad to reach the semi-finals. Though they fell to France on December 14th, they played with passion befitting their victories, which sparked raucous celebrations in the Arab world, Africa, and among émigrés in Europe—but also curious arguments.

Most of Morocco's 26-man squad were born abroad. Achraf Hakimi grew up in Madrid to poor Moroccan parents. He chose to play for the squad of his heritage and on December 6th netted the winning penalty kick against Spain. European football has become so diverse that most fans barely notice. Now Morocco has created its own squad of players with complex identities.

Morocco's Africanness is obvious if you

look at a map. But it comes with subtle tensions. Some sub-Saharan sniffs that north Africans look down on them.

As for Morocco's Arabness, that has been the subject of debate in cafés, fan zones and on social media. For the affirmative: Morocco is a member of the Arab League, Arabic is an official language, and its rich culture has contributed much to that of the broader Arab world. Many Moroccans identify as Arabs, and their victory was celebrated across the region.

Yet some Moroccans are uncomfortable with the label. A plurality (perhaps even a majority) are of Berber descent, and Ara-



Just not cricket



Ukraine

Survival of the blitzed

KYIV

Despite power cuts and blockades, Ukraine's economy is coping

TOMAS FIALA is not too fussy about his wine. But he recently opened a bottle of red that tasted particularly good. The bottle was dusty—not from a long sojourn in a French wine cellar, but from a bomb that Russia dropped on a warehouse in the outskirts of Kyiv, leased by Mr Fiala's firm to a local distributor. The bomb smashed 1.5m bottles, but a few cases survived, were cleaned up and put on sale under the label Vyzhyvshi (survivors). "I wanted a dusty bottle," says Mr Fiala, in a packed Italian restaurant in Kyiv.

Mr Fiala, a Czech businessman who founded Dragon Capital, now the largest Ukraine-based investment bank, has been working in Ukraine since 1996. He is a survivor, too. His investments span media, commercial property, shopping malls and agricultural machinery. "On February 24th when Russia attacked, I thought [that] was it," he says. But he decided to stay: "You have to be on the ground to make the right decisions." In March he recorded a 90% fall in revenue. But by September he had recov-

ered 50-70% of that. Some of his investments, such as malls in Lviv, are back at pre-war levels.

Then Russia started hitting Ukraine's critical infrastructure. The country's electricity-generation capacity has been cut by half. Ukraine's GDP is expected to contract by between 32% and 37% this year. But Mr Fiala, like many others, keeps on going. His plant in Poltava, in central Ukraine, which makes equipment for grain-handling and storage, turned to night shifts to avoid power cuts. When the lights go off, it switches to diesel generators (Ukraine im-

ported \$120m-worth of those in October alone). That hugely increases costs, but it keeps the machines running.

Having failed to conquer Ukraine or erase its identity, Vladimir Putin is trying to crush its economy. First he tried to blockade its ports and halt shipments of grain, its biggest export. But that hurt food-importing countries everywhere, and risked causing Mr Putin serious diplomatic damage. So he relented, and in July a deal brokered by Turkey and the UN let grain shipments resume from three large Ukrainian ports. In October Ukraine exported 4.2m tonnes through those ports and 2.8m by rail and road. But last month Russia started insisting on more rigorous (ie, slower) inspections of ships, so Ukraine could only export 2.7m tonnes by sea.

At the same time Russia started bombing electricity infrastructure, forcing shutdowns in the steel and iron-ore industry, Ukraine's second-biggest exporter. Furnaces were turned off at the huge Arcelor-Mittal plant in Kryvy Rih, the birthplace of President Volodymyr Zelensky. It was the largest employer by far in the city, which had a pre-war population of 600,000. Kryvy Rih is now largely dark, thanks to Russian missiles and drones. But shops, cafés and restaurants are keeping their lights on with generators. In a restaurant called Fish Place, on a dark street in Kryvy Rih, aproned staff were opening oysters and serving chopped herring to local families. ►

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In Kyiv most small and medium-sized businesses are running at full capacity. While most residential areas go without power for hours, the centre is buzzing with the sound of generators. Customers flock to shops for warmth and light. A swanky central department store, Tsum, is heaving. Kyiv's opera house performs Verdi to an audience limited to 462 people by the size of its bomb shelters.

Retaining a semblance of normal life is crucial to the wartime economy, employment and the spirits of Ukrainian people, says Serhiy Marchenko, Ukraine's finance minister: "Domestic consumption is keeping our economy afloat." Domestic VAT receipts are 40% higher than in the early months of the war, he says. The economy is resilient because Ukrainians are, he says, and because donors have been generous.

Ukraine has been getting \$3bn-3.5bn a month from its Western allies since the start of the war. America gives mostly grants; Europe, cheap loans. These funds have covered just over half of Ukraine's deficit. The EU recently approved another €18bn (\$19bn) for next year. "We have more predictability than we had a few months ago and I can plan the budget a year ahead," Mr Marchenko says.

Another big export-earner, information technology, depends on generators and internet connections. Software engineers cannot work from home because of blackouts. Men of military age are barred from leaving the country. So IT workers huddle in co-working spaces scattered across Kyiv. Demand for desks is hotter than it has ever been, says Oleksandr Kuhuk, the sales manager at Creative Quarter, which has three different locations in Kyiv. In a pastel-coloured funky space overlooking the Dnieper river, 20- to 30-year-olds are quietly tapping away at their computers.

"November was our record month. I don't even need to do any marketing," says Mr Kuhuk. His sales have grown by 200% year-on-year, he says. What makes his workspace attractive is not video-game consoles or fancy coffee machines, but back-up generators and Wi-Fi points, 1,000 bottles of water (enough for a week) and a large bomb shelter equipped with chairs and Wi-Fi, so people can carry on working during air-raid alerts. Some come with children and dogs. Many stay the night. Co-working often turns into co-living.

"The structure of our economy is changing," says Mr Marchenko. Ukraine's post-Soviet economy was dominated by large enterprises, most of them based on Soviet-era factories and energy pipelines that produced some 90% of output and were largely controlled by Ukrainian oligarchs. His hope is that the war will in the end make Ukraine much less dependent on oligarchs or Russia. First though, the country must survive. ■

Ukrainian demography

Missing multitudes

KYIV

Even before the war, Ukraine was one of the fastest-shrinking countries

NO ONE KNOWS how many people have died since Russia's invasion of Ukraine began. And because a lot of refugees have begun to return, no one knows how many remain abroad, nor how many people are in Ukraine today. One thing is sure though, says Iryna Kurylo, a researcher from Kyiv's Ptoukh Institute, who is exiled in Prague. The "demographic price" imposed by Russia's war will be very high.

Ukrainian demographic statistics were patchy even before the invasion. Now, if there are new figures, they have been declared secret for the duration of the war. What is not secret, though, is that for years Ukraine has been one of the fastest-shrinking countries in the world; and the war is, of course, accelerating its decline.

At independence in 1991 there were almost 52m people in the country. A census in 2001 recorded the population as 48.5m. No census has been conducted since then. In February, according to the last official estimate just before the invasion, there were 37.5m people living in government-controlled Ukraine. That figure was close to an estimate made in 2020 using sources such as pension-fund and mobile-phone data. Discussing that survey, Dmytro Dubilet, then a government official, said that 3.8m Ukrainians had left the country in the previous decade and had not returned.

Also in February this year, Ukraine's statistical service estimated that there were about 3.5m people in the Russian-

controlled halves of Donetsk and Luhansk provinces; and Russia's 2021 census claimed 2.4m in annexed Crimea. If roughly correct, these figures mean that within Ukraine's internationally recognised borders there were approximately 43.5m people before the invasion, which is roughly 16% less than at independence.

The latest figure for the number of refugees abroad is 7.8m, according to the UN's refugee agency. However, in September another UN agency reported that some 1.2m of these had returned home. Ella Libanova, a demographer at Ukraine's National Academy of Sciences, believes that there are now some 34m-35m people in government-controlled Ukraine. But any figures are conjectural, because many refugees are splitting their time between family at home and their country of refuge.

In the longer term the question is how many of those refugees, who are mostly women and children, will ever come home. Since September most refugee children have been attending classes, either at host-country schools or online. The longer the war goes on, the deeper the roots they will put down in their new countries and the less likely they are to return to Ukraine. Their mothers are mostly women of working age and, when the wartime restriction on men aged 18-60 leaving the country is lifted, many of their fathers will join them rather than the flow going the other way.

Even before the invasion Ukraine's pop-►



Will they ever return?

ulation was ageing fast, and men and women of working and child-bearing age were the most likely to emigrate. Every year since 1991, more Ukrainians have died than were born. In 2021, partly because of covid-19, there were 442,280 more coffins filled than cradles in government-controlled territory. Ukrainians, especially men, drink and smoke too much. Even before the war, their life expectancy was one of the lowest in Europe. In 2020 the average Ukrainian man could expect to live to 66, eleven and a half years less than the average man in the EU.

A study in March by scholars at the University of St Andrews in Scotland asked how the war might affect Ukraine's population. It predicted that it would fall by between 17% and 33% in the parts of Ukraine controlled by the government before Vlad-

imir Putin's invasion. In the worst-case scenario, it said, there would be only 28m people, with the numbers of working-age adults and children falling by 36% and 56% respectively. So, not many young people, and even fewer future parents.

Professor Kurylo notes that Ukraine has survived demographic calamities in the past, such as the famine caused by Stalin's policies in 1932-33, which killed almost 4m people, and the loss of 7m during the second world war. For that reason she expects a revival after the war—as happened in western Europe after both world wars in the 20th century. But there are reasons to fear that Ukraine's population could keep shrinking. In 1950 the average Ukrainian woman could expect to have 2.8 children. That had fallen to 1.16 in 2021, one of the lowest fertility rates on the planet. ■

Germany Unbeloved Berlin

BERLIN

Germany's capital struggles to clean up its act

IN A CITY stuffed with awkward monuments, this might have been one more. Plonked in the muddy middle of a large roundabout, the big cube boasts a tin top, plywood-covered sides and a front with three metal doors. But this is no conceptual artwork to inspire or irritate passers-by. A closer look reveals neat labels: *Toilette, Missoir, Pissoir*.

Installed this month, the public toilet at Kottbusser Tor has prompted jeers. Some scoff at its ugliness—a Twitter post calls it “liverwurst-coloured”. Others bemoan the five years it took the district government to build it—far longer than it took German boffins to invent a covid vaccine. Others note that it lacks disabled access. But the typical response seems to be eye-rolling over a doomed effort to gentrify a notoriously seedy spot. “Thanks for giving drug-pushers a new place to do business,” smirked one post.

Berlin's reputation for scruffy dysfunction is deserved. From letters that never arrive, to rubbish left uncollected, to months-long waiting times at government offices, the city's services poke holes in Germany's reputation for efficiency. Berlin's government bungled last year's state election so badly that courts told it to redo the whole thing. The tangles of artless graffiti that mar many walls suggest the city is afraid to grow up.

Whereas in other countries the capital is typically the richest city, income per head in Berlin trails far behind that in Hamburg or Munich. Berliners have worse schools and fewer hospital beds than other Germans. They complain

more to landlords too, with reason: in a Facebook advice group for new arrivals in Germany's capital, a Kottbusser Tor resident asks what to do about the “50+” rats scampering in his building's courtyard. The property manager loftily claims this is not his responsibility but the district government's.

Berliners take a certain pride in their city's gracelessness. At least it used to be cheap, and thus a magnet for misfits and creative minds. But demand has pushed up rents. Even Kottbusser Tor seems to be gentrifying: a full week into its life, the new toilet block bears not a smudge of graffiti.



Progress of a sort

Ireland

The job-share taoiseach

DUBLIN

Leo Varadkar returns as leader

THE MODERN Irish state was born 100 years ago this month, yet only two political movements have ever ruled it. To outsiders, there is not much difference between them. Born out of the struggle for independence from Britain, both Fianna Fail (Soldiers of Destiny) and Fine Gael (Tribe of the Gaels) have evolved into right-of-centre, pragmatic, pro-European parties. Their mutual antipathy derives from a short but vicious civil war between factions of the Irish Republican Army a century ago.

Another, more cultural distinction was identified by the late John Kelly, a pundit and former Fine Gael member of parliament, who reportedly said of his own party—in general a little posher, a little more self-righteous—that it couldn't walk past a sleeping dog without feeling the need to give it a kick. Last month, after surveys suggesting that many of Ireland's young renters are considering emigrating in order to find affordable housing, the present Fine Gael leader harrumphed that they couldn't expect to do any better abroad. Leo Varadkar, who served as taoiseach (prime minister) from 2017 to 2020, and whose party has been in government for the past 11 years, noted that “considering emigration is not the same as actually doing it, and many do come back.”

Mr Varadkar's comments provoked derision on social media from Irish emigrants reporting more reasonable rents in Berlin, Amsterdam and Paris. (As *The Economist*'s new cost-of-living index shows, plenty of cities are cheaper than Dublin.) A few days later, Ireland's Residential Tenancies Board reported that new rents for the second quarter of this year were up by 8.2% on the previous year. “I think at times he [Varadkar] goes off on these tangents of his own,” said Gary Murphy of Dublin City University. “Fine Gael do realise the level of the housing problem, and its toxicity, but he doesn't seem to be able to help himself.”

None of this will stop Mr Varadkar from becoming prime minister for a second time on December 17th. Under a “rotating taoiseach” deal thrashed out after an election in 2020, Fianna Fail's leader, Micheal Martin, got to be PM for the first half of the current term of parliament. Now it is Mr Varadkar's turn again, even though voters would rather Mr Martin stayed on.

Until early this century, both parties could hope to rule alone, or with one or two small coalition partners. Now, their com-►

Combined support is down to only 40% in a recent poll in the *Irish Independent*, and they are locked in a cold and probably doomed marriage of convenience. With 34% in that poll, the party that is likely to end up with the most seats after the next election is Sinn Fein (Ourselves), formerly the political wing of the Provisional IRA, a later and bloodier version of the Irish Republican Army. Its most cherished policy—a united Ireland—is not in its gift. But Sinn Fein has found fertile ground to the left of its rivals on health, welfare and housing. Sinn Fein's leader, Mary Lou McDonald, says her party will control rents—a policy that has tended to make housing scarcer wherever it has been tried, but which is nonetheless popular. She also vows to build lots more public housing. Desperate young voters are willing to believe her. ■

French trains

Two-speed nation

Ussel

France wants more railway travel. This means better slow trains, not just TGVs

AT THE END of a branch railway line that winds through wooded valleys in central France, a single carriage pulls into the little town of Ussel. The station has scarcely changed since it was built in 1880. Passengers still step over the rails to cross to the platform opposite. Clumps of grass and tall weeds sprout between the tracks.

To reach Ussel by railway from Paris, 480km (300 miles) away, there is no high-speed option. The journey can take nearly seven hours, with a change at Brive-la-Gaillarde. In the same amount of time, thanks to France's superb network of high-speed trains (TGV), it is possible to zip all the way from the capital to Marseille on the Mediterranean—and back.

Spain today has Europe's longest high-speed railway network. But France, which opened its first TGV line 41 years ago, has the oldest. To the French, the TGV is an emblem of national pride and technological prowess, as well as a way to shrink distance. An executive will think nothing of travelling for a business lunch from Paris to Lyon, 460km away, since the journey only takes two hours. Each year over 100m journeys are made by TGV.

Yet four decades of pouring money into the TGV has taught France another lesson, and not only about the vast cost of building and operating these lines (since 2018 the state has taken on a staggering €35bn, or \$37bn, of debt from the SNCF, the state-owned national railway). It is that linking lucky hyper-connected cities to the capital

has left swathes of the country at the mercy of poorly maintained railways, fostering a sense of abandonment. The TGV network, says Aurélien Delpirou of the Paris School of Urban Planning, has helped to create a "two-speed France": superfast non-stop trains for those who can afford them; second-rate, slower trains for the rest.

On some secondary lines the service is worse today than in the past. Two non-TGV lines running north-south through central France have been particularly neglected: one between Paris and Clermont-Ferrand, in the Massif Central, the other between Paris and Toulouse, which passes through Brive and Limoges. The railway carriages running on the latter are veritable museum pieces, designed in the 1970s. Today it takes half an hour longer to travel from Limoges to Paris than it did back then. "We are poorly connected, and everyone finds it frustrating," says Marianne Debuire, at the Ussel town hall.

Mindful of this divide, the French government recently decided to switch track. As part of President Emmanuel Macron's push to cut carbon emissions, it wants more people on the railways and fewer behind the wheel. But it knows that such a strategy cannot be based only on fast trains. "The TGV is a source of pride, and for a lot of big cities has been a motor for economic development," says Clément Beaune, the transport minister. "But we have underinvested in certain other lines. For me that's now a priority." The government is putting €3bn into renovating these two non-TGV lines, and buying new trains. It has relaunched slow night trains on long routes.

Remote places like Ussel, on the "plateau of a thousand cows", could certainly do with a boost. Since 1982 the town has lost 20% of its population, mostly those of working age. Uncertainty hangs over the future of an aluminium foundry in the town. Ussel's Grand Hotel, the poshest in town, boasts two stars. In its grey-stone centre, amid narrow medieval alleys, lies a smart chocolate shop and a bookshop. But

the *fromagerie* has closed, and "for rent" signs hang forlornly in boarded-up shop windows. When asked if things are always this quiet, the manager in one bar, decorated with a stuffed plastic Father Christmas suspended from the ceiling, replies: "Always at the end of the month."

In many ways, this town of 9,000 people on a remote plateau is lucky to have its own station, served by five direct trains a day to Limoges, and four to Brive. The single-carriage train that goes back and forth is shiny, modern and comfortable. Yet Ussel also captures the challenge of getting people to swap the car for the railway. Most locals use the car. Fully 85% of households in Ussel own at least one, and four-fifths of journeys to work are by vehicle. The pattern is common. Countrywide, 74% of French use their car to get to work. "If we really want an environmental transformation, we need to double the share of passenger train travel by 2030," says Mr Beaune. "But we have to be realistic, the car isn't going to disappear."

The divide between the connected France of high-speed trains and its remoter slow-train regions has political repercussions too. In 2018 the *gilets jaunes* (yellow jackets) uprising began as a protest by the car-dependent against a rise in the carbon tax on motor fuel. Those on squeezed budgets who use their cars daily felt snubbed by a governing class in Paris well served by public transport. At the final round of the presidential election in 2022, Mr Macron won a huge share of votes in big cities linked by the TGV, such as Rennes (84%), Nantes (81%), Bordeaux (80%) or Lyon (80%). Nationwide, he was re-elected with 59%. Marine Le Pen, the nationalist-populist leader whom he defeated, secured 41% nationally—but 50% of the vote in rural parts of France.

The new focus on improving slower trains does not mean that France is turning its back on the TGV. Regional cities still lobby hard for them; local officials consider securing a high-speed link to be a badge of recognition for their town. The SNCF plans to extend the TGV from Bordeaux to Toulouse by 2032, as well as between Montpellier and Perpignan, and Marseille and Nice. A cross-border link from Lyon to Turin, in Italy, is under construction. To encourage travel by TGV, France in 2021 banned flights between cities that are under two and a half hours from each other by train.

Nor does France have illusions about how much passenger traffic it can realistically shift from the roads to the railways, not least given recurrent strikes. But Mr Macron knows better than many leaders how explosive the mood can be in areas where people feel neglected and ignored. Better slow trains to such places may well prove more useful than more fast trains that bypass them altogether. ■



Charlemagne | Cash and carry votes?

A corruption scandal leaves the EU reeling



WHOMO IS THE most recognisable member of the European Parliament?" sounds like the set-up of a joke, along the lines of "Who is the best-dressed Boris Johnson impersonator?" Still, it has a punchline now: Eva Kaili, who started the week—but did not end it—as a vice-president of the parliament (fret not, there are still 13 left). Ms Kaili, a Greek MEP, is now the poster girl for what is arguably the worst case of sleaze in the six-decade history of the EU institutions. On December 9th Belgian police arrested six people, four of whom, including Ms Kaili, were later charged with corruption and money laundering. Over €1.5m (\$1.6m) in cash payments allegedly made by Qatar have been recovered by Belgian police, who have carried out 20 raids mostly connected to sitting or former MEPs and their staff. Both Ms Kaili, a former newsreader, and her Italian partner, an aide in the parliament, languish in a Brussels jail. They deny wrongdoing, as does Qatar, which calls the claims "unfounded". Her father, arrested after being caught lugging a cash-filled suitcase from a hotel near the parliament, was released as a mere suspected accomplice.

With the investigation continuing, a mood of nervousness, confusion and indignation has descended on Brussels (and Strasbourg, to which the parliament ridiculously decamps once a month). There are signs pointing to the possible cause of any graft. Qatar wants its citizens to be able to take holidays in Europe without a visa, a perk offered to many rich countries. This looked to be forthcoming a week ago but is now on ice. It also wanted to temper criticism of its treatment of migrant workers during the World Cup. Ms Kaili had declared Qatar to be "a front-runner in labour rights", an unpopular opinion in Europe. Her centre-left political group seems to have worked to soften a motion criticising Qatar. Another person arrested, Pier Antonio Panzeri, an MEP until 2019, is the head of an NGO called, of all things, Fight Impunity. (He could not be reached for comment.)

If the allegations against these people were to prove true, would it be evidence of deep-seated rot in the EU? Probably not. Over 60,000 people work in the European institutions, including 10,000 or so in the parliament alone. Every political system has crooks. In America \$90,000 was once found in the freezer of a congressman shortly after he had met lobbyists. The fewer questions

that are asked about the financing of past French elections, the better. British MPs claimed some comically dodgy expenses before the media exposed them. The list goes on. Qatar was known to have one or two bill-counting machines at its disposal: between 2011 and 2015 Britain's Prince Charles, as he then was, is reported to have accepted €3m in cash from a Qatari politician (entirely legally for his charities, it was pointed out).

But sleaze scandals could damage the European Parliament—and by extension the EU as a whole—more than they do national polities. For unlike national legislatures, the Brussels parliament toils in relative obscurity. Voters in a typical European country who hear about a local politician caught grafting will weigh the story against lots of other coverage of local politics, and conclude that bad behaviour is the exception. By contrast, this story of Euro-corruption has made a splash on an otherwise blank canvas. Reports of Ms Kaili's antics put the European Parliament at the top of evening news bulletins across the continent. That is exceedingly rare, if not unprecedented.

Questions will be raised as to how the institutions in Brussels police themselves. Awkwardly, it was the Belgian authorities who cracked the alleged corruption ring, not the EU. Over a quarter of MEPs have second jobs, according to Transparency International, a pressure group. In theory they are not meant to act as lobbyists, but in practice few are pressed to give much detail on what they do. Rules are tighter than they once were, but sanctions are rare, though a (much smaller) corruption scandal brought down the entire European Commission in the 1990s.

This week's sleaze will disrupt the European Parliament's bid to curb corruption among the bloc's 27 member states. Ironically, around the time when police were cordoning off parliament offices as possible crime scenes, the EU scored a rare success in fighting graft. On December 12th member states agreed to suspend €6.3bn in EU subsidies to Hungary until it adheres to basic rule-of-law principles. MEPs had been among the most effective advocates of punishing corruption in Hungary, where the ruling party lavishes European taxpayers' cash on iffy projects. Viktor Orban, Hungary's strongman prime minister, is now gloating at the EU's discomfort.

More money, no problem

The European Parliament has lots of competent and hard-working members. The legislation it amends and passes (it lacks the power to propose its own bills) is often improved by its expertise. For all that, it has struggled to make much of an impression on the general public. The brightest national MPs often rise to positions of prominence in government. The brightest MEPs are known mainly to a few Twitter obsessives in the Brussels bubble, despite the extra powers granted to the chamber in 2009. As a result, much of the parliament's energy is spent trying to secure more powers for itself. That is a cause few outside it find appealing.

The scandal marks a bad end to what had been a good year for the EU and its institutions. The bloc has been far more united than anyone expected in helping Ukraine: a new slug of €18bn in aid was due to be signed off at a summit of EU leaders as *The Economist* went to press. Tough sanctions have been imposed on Russia, and are being strengthened even as a retaliatory energy embargo has sent heating bills soaring in Europe. The European Parliament can claim scant credit for any of this. It has little weight in high politics. Its job is to provide a veneer of democratic legitimacy to the strange contraption that is the EU. Before asking for more powers, it will have to sort out this mess. ■



A historical mystery

The strange case of Britain's demise

GRANTHAM

A country that prided itself on stability has seemed to be in free-fall. Whodunnit?

**BRITAIN'S
GROWTH
CRISIS**



THE DRIVEWAY dips as you approach Belton House, the gold-hued façade rising before you as the road tilts up again. Passing through a marble-floored hall to the ornate saloon, early visitors would have admired a portrait of the original master's daughter with a black attendant. For a while, says Fiona Hall of the National Trust, a heritage charity that these days owns the property, servants came and went from the kitchen wing through a discreet tunnel. A magnificent staircase led finally to a rooftop cupola, and views of an estate that stretched beyond the horizon.

Built in the 1680s, the idyllic mansion embodies a costume-drama view of Britain's past that is widely cherished at home and abroad. Its location in Lincolnshire makes it emblematic in another way: in the

heart of England, in a region that in 2016 voted decisively for Brexit, and on the outskirts of Grantham, a typical market town that was the birthplace of Margaret Thatcher, the country's most important post-war prime minister. Previously the venue for a murder-mystery evening featuring suspects in period dress, this history-laden spot is an apt place to ponder a different sort of mystery. Who nobbled Britain?

Alas, the victim is in a parlous state. A country that likes to think of itself as a model of phlegmatic common sense and good-humoured stability has become an international laughing stock: three prime ministers in as many months, four

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chancellors of the exchequer and a carousel of resigning ministers, some of them repeat offenders. "The programme of the Conservative Party," declared Benjamin Disraeli in 1872, "is to maintain the constitution of the country." The latest bunch of party leaders have broken their own laws, sidelined official watchdogs, disrespected Parliament and dishonoured treaties.

Not just a party, or a government, but Britain itself can seem to be kaput. England's union with Scotland, cemented not long after Belton House was built, is fraying. Real incomes have disappointed since the crash of 2008, with more years of stagnation to come as the economy limps behind those of most other rich countries. The reckless tax-slashing mini-budget in September threatened to deliver the *coup de grâce*. The pound tanked, markets applied a "moron premium" to British sovereign debt and the Bank of England stepped in to save the government from itself.

Today the economy is entering recession, inflation is high and pay strikes are disrupting railways, schools and even hospitals. The National Health Service (NHS), the country's most cherished institution, is buckling. Millions of people are waiting for treatment in hospitals. Ambulances are perilously scarce.

In Grantham, a town of neat red-brick terraced houses, half-timbered pubs and 45,000 residents, the malaise shows up in ➤

► a penumbra of hardship. Amid staff shortages in the NHS—and an uproar—the local emergency-care service has been cut back. Immured in stacks of nappies and cornflakes at the food bank he runs, Brian Hanbury says demand is up by 50% on last year, and is set to rocket as heating bills bite. Rachel Duffey of PayPlan, a debt-solutions firm that is one of the biggest local employers, predicts that need for help with debts is “about to explode” nationwide, as people already feeling the pinch come to the end of fixed-rate mortgage deals. As for the mini-budget: “It was a shambles,” laments Jonathan Cammack, steward of Grantham Conservative Club.

Natural causes

Whodunnit? A rich cast of suspects is implicated in the debacle. Some are obvious, others lurk in the shadows of history, seeping poison rather than dealing sudden blows. A few are outsiders, but as in many of the spookiest mysteries, most come from inside the house.

To begin with, Britons with long memories may detect a familiar condition: a government that has reached decrepit old age. A parliamentary remark in October about soon-to-quit Liz Truss—“the prime minister is not under a desk”—brought to mind immortal lines from the death-spiral of the Labour administration that lasted from 1997 to 2010. Then the chancellor referred to the prime minister’s henchmen as “the forces of hell”; “Home secretary’s husband put porn on expenses”, newspapers reported. In the mid-1990s, at the fag-end of Tory rule that began in 1979, a run of MPs were caught with their pants down or their fingers in the till in another relay of shame.

Britain seems trapped in a doom loop of superannuated governments which, after a term or two of charismatic leadership and reformist vim, wind up bereft of talent, sinking in their own mistakes and wracked by backbench rebellions; in office but barely in power. Eventually routed at the polls, it then takes the guilty parties several parliamentary terms to recover. In opposition, both Labour and the Tories have determinedly learned the wrong lessons from defeat before alighting on the right ones. In a system with two big parties, for either to lose its mind is dangerous. For both to do so at once—as happened when, amid recent Tory convulsions, Labour was led by Jeremy Corbyn, a hard-left throwback—is a calamity.

“A family with the wrong members in control,” George Orwell wrote of the English. Yet a repeating cycle of senile governments does not, by itself, explain the national plight. Those previous administrations never plumbed the depth of disarray the current lot has reached. Something else has struck a country that has spewed out ruinous policies and a sequence of

leaders resembling a reverse ascent of man: from plausible but glib David Cameron, to out-of-her-depths Theresa May, disgraceful Boris Johnson and then Ms Truss, probably the worst premier in modern history. Philip Cowley of Queen Mary University of London says that, in bygone days, Rishi Sunak would at this stage of his career have been a junior Treasury minister, rather than the latest prime minister.

Violence has been inflicted on the body politic—most brazenly, by Brexit, in the referendum, with 52%. Parties in power for over a decade are bound to scrape the bottom of the talent barrel. In this case, much of the Tory barrel was poured down the drain when support for Brexit became a prerequisite for office. The outcome has been rule by chancers and cranks. Mr Johnson’s Brexit machinations put him in Downing Street; the tribalism that the campaign fostered kept him there for much longer than he deserved. Brexit has wrecked the Tory party—and yet it is, broadly speaking, the side that won.

Brexit has also institutionalised lying in British politics, as the dishonesty of Brexiteer promises segued into the pretence that they are being fulfilled. They are not. “Nothing much has changed,” Mr Cammack in Grantham says glumly. “Life just keeps going on.” But some things have changed for the worse. Investment is down and inflation higher than it would have been inside the European Union. Labour, skilled and otherwise, is scarce. Farmers are losing crops for want of workers. In Lincolnshire, says Johanna Musson of the National Farmers Union, tulip-growers are especially fretful. The county’s exports have fallen as, across Britain, Brexit-induced red tape leads some businesses to give up on European markets.

In 1975, during an earlier strike-hit era, Britain held another referendum on its relationship with Europe. Roy Jenkins, a pro-Europe statesman, predicted that, if it left, it would wind up in “an old people’s home for faded nations”. Give or take a detour to the lunatic asylum, that judgment looks prescient. The economy is floundering and the country’s international prestige is plummeting: precisely the future Brexit was meant to avoid.

Still, as any murder-mystery aficionado knows, the obvious suspect is rarely the right one. In the curious case of Britain’s decline, Brexit is as much a weapon as the ultimate culprit.

The hand of history

Many of the factors behind the decision to leave have roughed up other countries, too. Lots of people on both sides of the Atlantic crave simple answers to complex questions, and populists have provided them. Faith in mainstream parties has waned, even as expectations of government have risen. The line between politics and entertainment has blurred, aggravating, in Britain, an old reluctance to take things *too seriously*, and a weakness for wits and eccentrics who cock a snook at convention. That is less damaging when there is substance behind their insouciance and discipline beneath the panache.

Ben Page, the boss of Ipsos, a global research firm, points to what he terms the “loss of the future”, common across the West but acute in Britain. In 2008, as the financial crisis struck, only 12% of Britons thought youngsters would have a worse quality of life than their parents, Mr Page notes. Now that figure is 41%. As elsewhere, people worry about immigration and feel threatened by globalisation. All ►



► this makes Britain's predicament seem less an inside job than part of a wider takedown of democracy.

But other likely suspects lurk in the attic of British history. One grew up down the road from Belton House. The grocer's shop in Grantham above which Margaret Roberts, later Thatcher, was born is now a chiropractor and beautician. A statue of her put up earlier this year was quickly egged and defaced (she endured worse in real life). Her legend still looms over the country—particularly her Conservative Party.

Thatcher's 11-year rule was an amalgam of caution, patience, luck and boldness. But among some Tories it is often misremembered as a prolonged ecstasy of tax-cutting, fight-picking, union-bashing and shouting "No, no, no" at Brussels. The rows over Europe that erupted on her watch rumbled on till the referendum of 2016. For some, she bequeathed a hunch that if economic policy doesn't hurt, it isn't working. Her ousting nurtured a lasting taste for party bloodletting. To court Tory members, Ms Truss even seemed to mimic Thatcher's wardrobe. (It took just 81,326 of them to put her in Downing Street.)

Peer deeper into the past and more evidence comes to light. Recall, for instance, that painting in the saloon at Belton House, of the girl and her black attendant, possibly a slave. Her family, the Brownsbrows, had links to both Caribbean plantations and the East India Company, which helps explain the house's splendid collection of Asian porcelain. The wider legacy of Britain's former empire, runs a plausible theory, is a gnawing sense of unmet expectations and a fatal delusion of grandeur over the country's place in the world.

For Sathnam Sanghera, author of "Empireland", a powerful book about the largely unspoken effects of imperialism, "the original sin behind Brexit is empire." The circumstances in which that empire was lost may have redoubled the psychic blow: in the wake of the second world war, during which, at least in the popular memory, Britain stood nobly alone against the Nazi onslaught. Afterwards it found itself diminished, broke and outdone by erstwhile foes, nurturing entwined feelings of greatness and grievance and haunted by phantom invasions. As the Irish author Fintan O'Toole has quipped, "England never got over winning the war." In his view, Brexit was "imperial England's last stand".

Perhaps not quite the last. Even now you can hear an echo of imperial hubris in the tendency of some British politicians to talk to EU negotiators, or the international bond markets, as if they were waiters in a Mediterranean bistro, liable to comply if only you repeat yourself loudly enough. It resounds in hollow boasts about having the best health care or army (or football team) in the world, in the yen to "punch



above our weight", and in the pursuit of a pure sort of sovereignty which, in an age of climate change, pandemics and imported gas, no longer exists.

"Until we face up to our history," thinks Mr Sanghera, "we're just going to carry on being dysfunctional." On this analysis, the unravelling of Britain is a kind of karma.

In the 18th century, with a shrug

Maybe. Yet imperialism, greatness and all that have always been more an elite preoccupation than a popular one. In his enlightening new book, "The Strange Survival of Liberal Britain", Vernon Bogdanor of King's College London cites a survey of Britons conducted in 1951, when the loss of empire ought to have been most raw. Half of respondents couldn't name a single colony (one suggested Lincolnshire). Odd as it is to say of a country that for centuries ruled swathes of the world, it may not be ruptures like the end of empire or Brexit that have done in modern Britain, but, less dramatically, a kind of long-term drift; not violence, in other words, but neglect.

Think back to the era in which Belton House was built. After the execution of Charles I in 1649 and the short-lived English Commonwealth, the monarchy had been restored. Compared with other European nations, the English got their big revolution done early—but then thought better of it, afterwards nudging forwards to constitutional monarchy and democracy. This piecemeal approach has characterised the country's political evolution ever since. Walter Bagehot, a great Victorian editor of *The Economist*, noted the habit of compromising on thorny constitutional issues—or ducking them. "The hesitating line of a half-drawn battle was left to stand for a perpetual limit," he wrote of such

botches, and "succeeding generations fought elsewhere."

Booby traps were often left behind. One lies in the fuzzy and weak restraints on the British executive. As Lord Hailsham, a Tory grandee, warned in 1976, a government with a secure majority in the House of Commons has an inbuilt tendency towards "elective dictatorship". The House of Lords, which is meant to scrutinise legislation, is the fudge *par excellence*. In an absurd back-room deal of 1999, the hereditary peers who once dominated it were ejected—except for 92 of them. They are still there; when one dies, another is elected to replace him. Those are the only elections to Parliament's upper chamber.

It is hard to see many other countries tolerating such a farrago. Meanwhile, a gentlemanly understanding that leaders would regulate their personal behaviour, once known as the "good chaps" theory of government, did not survive contact with Mr Johnson. As when a mob realises the rule of law is a confidence trick, it turned out that a few good shoves could dispense with much of the flimflam of oversight.

Or consider the myopic attitudes of successive governments to devolution. When it created the Scottish Parliament, Sir Tony Blair's Labour administration did not fully anticipate the subsequent surge in English nationalism. Nor did it foresee how, after taking office in Edinburgh, the canny, pro-independence Scottish National Party (SNP) would enjoy both the dignity of power and the sheen of opposition to Westminster. Now Brexit is inflicting more casual vandalism on the union, undermining support for it in Scotland and Northern Ireland, which both voted to remain in the EU.

Whereas once Scottish independence was an in-or-out proposition, says Sir John Curtice of the University of Strathclyde, it has become a choice between competing unions, British and European. As the SNP vows to rejoin the EU, some Scottish Remainers who had rejected independence are embracing the idea. For some in Northern Ireland, explains Katy Hayward of Queen's University Belfast, the mere fact of Brexit made a united Ireland more desirable; the region's awkward post-Brexit position has led still more to think unification is likelier than it was before. Across Britain, a majority thinks the union will fall apart. It is not on the cards yet, but one day Britain may dissolve itself by accident.

Drift and neglect have undermined more than the constitution and the union. David Kynaston, the pre-eminent historian of 20th-century England, invokes Sir Siegmund Warburg, a German-born banker who helped shake up the City (on the slide as an equity market in the aftermath of Brexit). Warburg detested the British fondness for the phrase, "We'll cross that bridge when we come to it." As Mr Kynaston ob-

► serves, Britain is not a place that is “good at grasping the nettle”.

With some glaring, uncharacteristic exceptions—Thatcher’s battle with the coal miners, the bust-up over Brexit—Britain tends to dislike confrontation, especially the ideological kind, perhaps a legacy of the civil war. It prefers irony to ideas and douses plain-speaking in good manners; its people have a quaint instinct to apologise when a stranger steps on their foot. Alongside this squeamishness, says Mr Kyngaston, runs a “deep-dyed anti-intellectual empiricism”, and an inclination to tackle problems “pragmatically, as and when they arise, not looking for trouble in advance”.

This reticence has costs, not least through its complicity in the underpowered economy. Consider the glacial planning regime, or—an even more venerable problem—the skewed education system. It produces a narrow elite, dominated for too long by the alumni of a few private schools: Brexit and the mini-budget can both be traced to the playing fields of Eton, attended by Mr Johnson, Mr Cameron, who botched the referendum, and Kwasi Kwarteng, very briefly the chancellor. Less conspicuous, but at least as damaging, is the country’s long educational tail.

It has recently made some progress in international education rankings, but a stubborn quarter or so of 11-year-olds in England are unable to read at the expected level. A higher share of teenage boys are not in work, education or training than in most other rich countries. As for those who stay in the classroom: the “greater part of what is taught in schools and universities ...does not seem to be the most proper preparation” for “the business which is to employ [students] during the remainder of their days.” That was Adam Smith in “The

Wealth of Nations”, published in 1776. Employers make similar complaints in 2022.

In a post-imperial, post-industrial, ever-more competitive world, all that contributes to a skills shortage and a long-term productivity gap with other advanced economies. The fat years under Sir Tony and Gordon Brown disguised these shortcomings—until the crash, when it became clear that the boom they oversaw was over-reliant on financial services and debt. Using the fruits of Thatcherite economics to fund a more generous state had seemed a political elixir; it turned out to be a fair-weather formula. In the kindest of circumstances, New Labour left some of the hardest problems unsolved. Most new jobs went to foreign-born workers. The number of working-age adults receiving welfare benefits barely shifted.

The cradle of the Industrial Revolution has not yet found a secure niche in the 21st-century economy. Nor has it figured out how to pay sustainably for the sort of public services that Britons expect. If, in the matter of Britain’s meltdown, Thatcher is an accessory before the fact, so is Sir Tony.

The country-house red herring

In the upstairs-downstairs, country-house vision of Britain, the country is a museum of class, with overlords surveying their lands and minions scurrying below stairs as they once did at Belton House. Famously, Disraeli wrote of “two nations”, the rich and the poor, as distinct as “inhabitants of different planets”. England, especially, is indeed a class-ridden place, whose denizens still make snap judgments about each other’s backgrounds based on accents, shoes and haircuts. Too many at the bottom of the ladder cannot see a way up it. Some at the top still benefit from unearned

deference. Politicians often share this binary outlook, thinking the business of government is to squeeze the rich and comfort the poor, or vice versa.

But Disraeli’s formulation is too crude for 21st-century Britain. After generations of muddling through, it is in large part a country of people who are not exactly poor but are by no means rich. Instead they are “just about managing”, as Mrs May, the last prime minister but two, described them.

Take Grantham, a constituency in which the average income in 2020 was £25,600 (\$32,900), just below the national median. (This year, Britain’s GDP per person will be more than 25% lower than America’s, measured at purchasing-power parity.) Amid the cost-of-living squeeze, says Mr Hanbury at the food bank, not only households that rely on welfare benefits but nurses and teachers are coming unstuck: “People live so close to the edge.”

It is only a 70-minute train ride to London, but power in Westminster seems remote, reflects Father Stuart Cradduck of St Wulfram’s, a lovely medieval church behind Grantham’s low-slung high street. Lincolnshire, he says, feels like a “forgotten county”. Kelham Cooke, the leader of the local council, says young people who leave for university often don’t come back. Regional inequality is another old, hard problem that successive British governments have only desultorily tackled, watching on as London sucked in talent and capital and other places fell behind.

There is something to be said for drift; or, to put it another way, gradualism. A “highly original quality of the English”, Orwell wrote in 1947, “is their habit of not killing one another.” By slowly expanding the franchise and incorporating the labour movement into democratic politics, Britain avoided continental-style extremism in the 19th and 20th centuries. When liberalism perished elsewhere in Europe in the 1930s, observes Mr Bogdanor, it survived in Britain. Compared with places such as France or Italy, where the far right is resurgent—or with ultrapolarised America—it is healthy in Britain still. Ms Truss’s stint in Downing Street was inglorious, but, Mr Bogdanor notes, she was removed quietly and efficiently, without riots or fuss. The flawed parliamentary system worked.

So drift can be benign. But it can also take you into a cul-de-sac—or off a cliff. In Britain it has led to economic mediocrity and disgruntlement, which in turn contributed to the yelp of Brexit and the desperate magical thinking of the mini-budget. Senile governments, self-inflicted wounds, the blowback of empire, corrosive global trends, the spectres of bygone leaders: they are all accomplices. But the main cause of Britain’s woe belongs less at a crime scene than in a school report. In the end, it didn’t try hard enough. ■



Charting Britain's performance

Declinism and data

Britain's economic record since 2007 ranks near the bottom among peer countries

SHORTLY AFTER becoming prime minister in 2007, Gordon Brown crowed that Britain had enjoyed “the longest uninterrupted period of economic growth in the history of our country”. In polling by Gallup that year, with the global financial crisis about to begin, 53% of respondents said that their lives were improving. This year just 28% agreed that life was getting better. Faith in government has also taken a hit, particularly since the Brexit vote in 2016.

There are some immediate explanations for this sense of disenchantment:

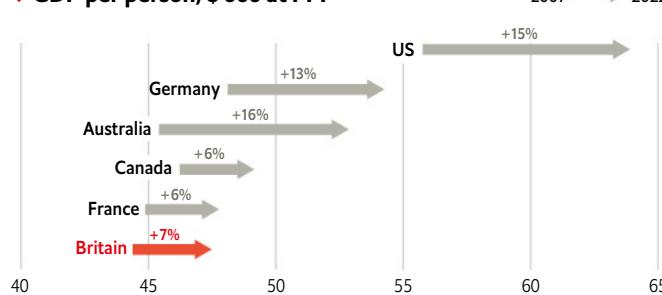
from strikes to double-digit inflation (of 10.7% year on year in November, a slight easing on the previous month). And over the past 15 years much of the West has suffered from similar maladies to Britain: high inequality, slowing economic growth and bouts of political instability. Some big, rich countries, such as Italy and Japan, have fared worse over that period on measures like real growth in median incomes.

But a closer look at the data reveals that there are specific reasons for Britons to worry. The country has historically tried to

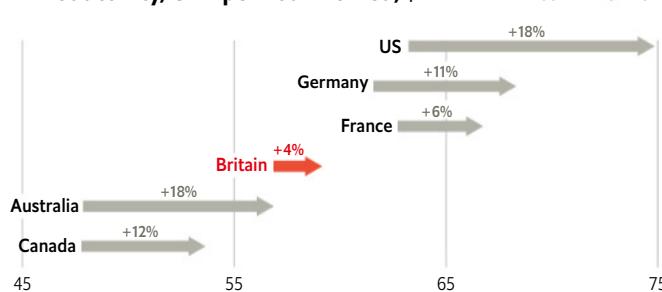
position itself as a bridge between Europe and America. With that in mind *The Economist* has benchmarked Britain against a group of other sizeable English-speaking countries—Australia, Canada and the United States—and against France and Germany, the two biggest continental European economies. Although there is no single all-encompassing measure of national well-being, the changes in Britain since 2007 rank it at or near the bottom of this group on a wide variety of economic indicators.

On a per-person basis, Britain's economy has grown by 7% in real terms since 2007. That is just ahead of Canada and France, both at 6%, but behind America, Australia and Germany, which sit at 13-16%. Unfortunately, much of Britain's meagre growth has come not from working more efficiently but rather from working more. Over the past 15 years British labour productivity has climbed by just 4%, slightly behind France's 6% and far worse than the ➤

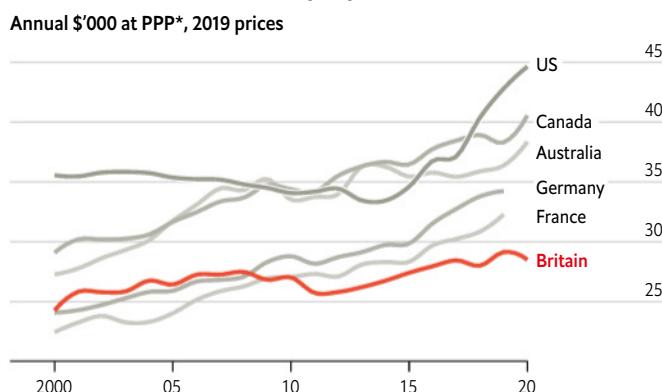
→ GDP per person, \$'ooo at PPP*



→ Productivity, GDP per hour worked, \$

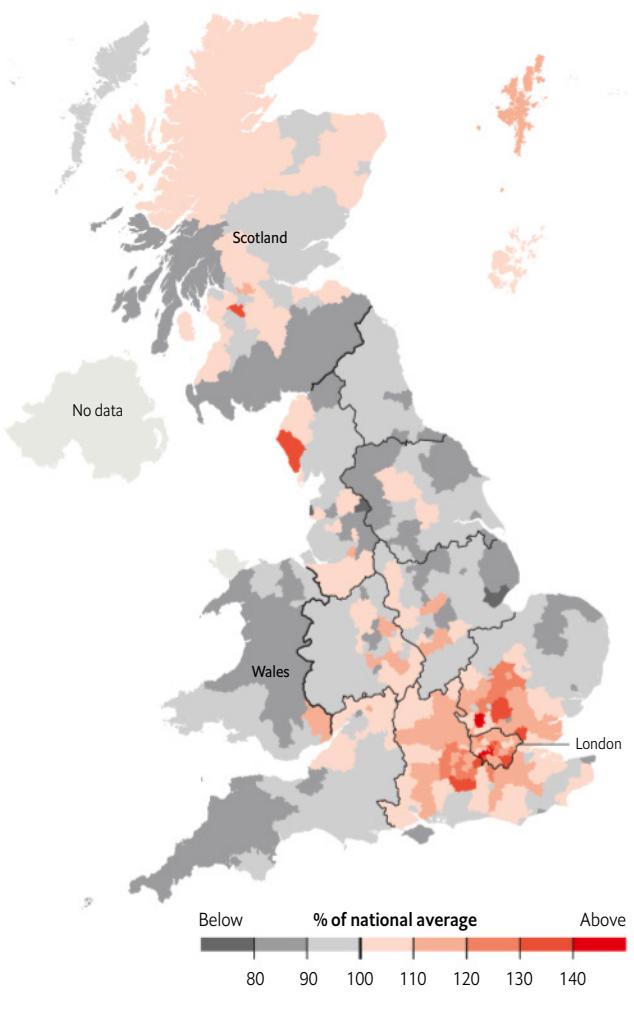


→ Median household income per person†



→ Median gross earnings as share of national average

Full-time employees, 2020-22



*Purchasing-power parity †After taxes and transfers

► other countries' double-digit gains.

Instead of combining Europe's and America's strengths, Britain appears to be saddled with the weaknesses of both—plodding growth and entrenched inequality. At the start of the financial crisis, after accounting for differences in the cost of living in each country, the median household income in Britain was on par with that of Germany. Meanwhile, earnings for relatively poor people—those in the tenth percentile of the income distribution—were roughly similar in Britain and America.

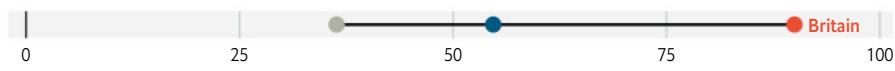
Today, things look far grimmer: Britain comes last by a hefty margin at both the tenth and 50th percentiles. Britain's geographic disparities are also particularly pronounced. Although the concentration of prosperity in "superstar cities" is widespread, Britain is unusual in having such a dominant mega-city. London and its environs (ie, the South East and the East of England) make up 37% of Britain's population but 47% of its GDP.

Outside the economic realm, Britain's record is mixed rather than poor. The changes in its death rate since the emergence of covid-19, and in its life expectancy for 65-year-olds since 2007, are better than America's but worse than the other countries'. Education is a relative bright spot. In international PISA tests of maths, science and reading skills among 15-year-olds, Britain ranked fourth among the six countries in 2007 but now comes second to Canada. The country maintains a disproportionately large share of highly rated universities. And the share of British respondents to Gallup polls who say they would like to emigrate, though still the highest in the group, has fallen to 20%, from 33% in 2007. Given Britain's underwhelming economy and the darkening mood, insularity may help explain that. ■

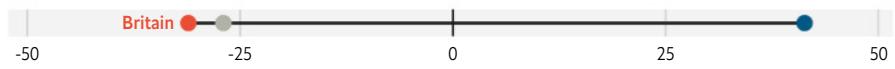
→ Change from 2007 to 2022 or latest

Average of ● US, Canada and Australia ● Germany and France

Gross government debt as share of GDP, percentage-point change



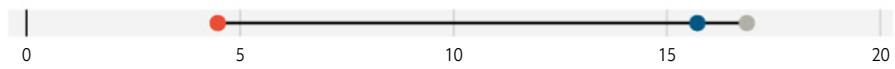
Stockmarket capitalisation, % change



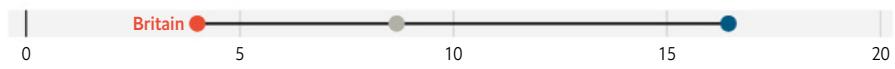
Real effective exchange rate, % change



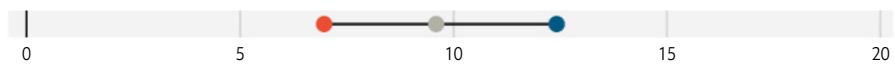
Income* for low earners†, at purchasing-power parity, % change



Productivity, GDP per hour worked, % change



GDP per person, at purchasing-power parity, % change



Life expectancy at 65, % change

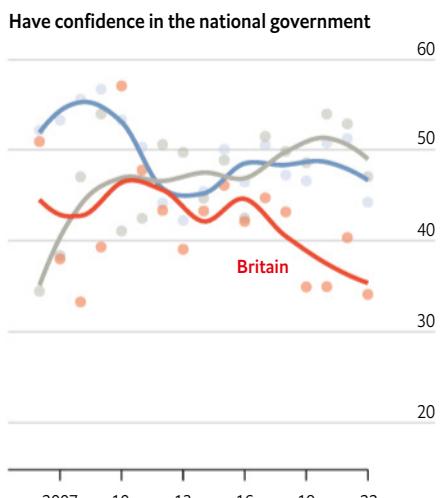


Change in PISA education-standards score



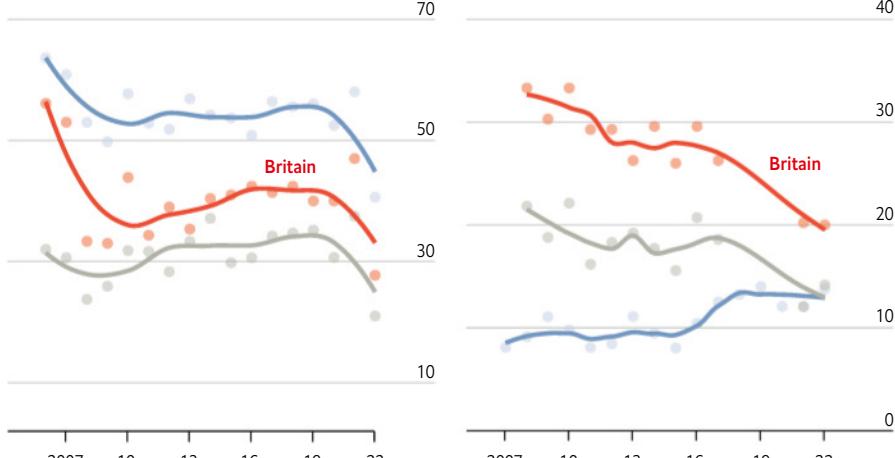
*After taxes and transfers †At tenth percentile of income distribution

→ Opinion polling, % agreeing

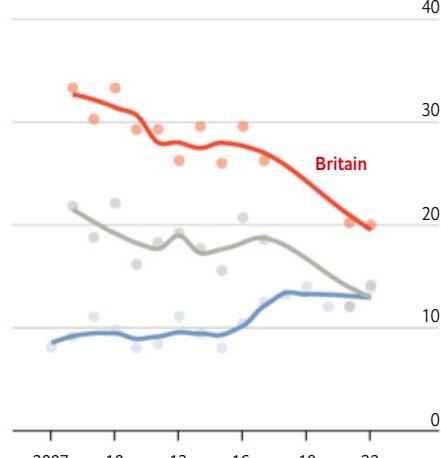


Average of ● US, Canada and Australia ● Germany and France

Standard of living is getting better



Would like to move to another country



Industrial action

Railing against the system

Strikes disrupt Britain's train network, and there is no terminus in sight

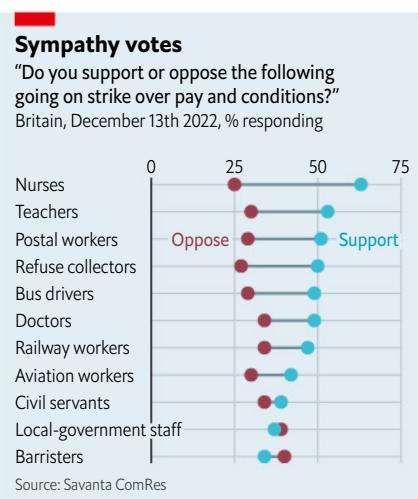
MICK LYNCH sounds like a prophet of Britain's end-times. In interviews the twinkly-eyed secretary-general of the National Union of Rail, Maritime and Transport Workers (RMT) paints a picture of a country with crumbling Victorian-era infrastructure, mounting inequality and "the ordinary Joe out there on the street, trying to go about their daily life despite all the pressure". Yet the 40,000-odd RMT railway workers who launched more strikes this week—in the longest of the country's wave of industrial disputes—are not at the sharpest end of Britain's problems.

In comparison with the nurses, teachers and postal workers who have also voted to strike, employees on Britain's railways are fairly well paid. The average salary of rail workers, excluding drivers (who earn much more and are mostly represented by a different union), is £39,518 (\$49,100); the RMT says that figure omits train cleaners. Between 2011 and 2021 pay for railway employees (including drivers) rose by 24%; in that period average pay for nurses grew by about 13%, a fall in real terms of about 5%.

Britain does not depend on its railways as it once did—in part because trains are so unreliable and expensive that only a small proportion of Britons use them to get to work. The effects of the current strikes will nonetheless be considerable. Network Rail, which owns and manages Britain's rail infrastructure, has warned of some disruption every day until January 8th. Many people's plans to travel for Christmas—the first since 2019 during which Britons have been free to mingle without covid-19 restrictions—will be ruined.

Restaurants, many of which are still struggling to recover from the pandemic, are also concerned about the impact of the strikes in their busiest period. UKHospitality, an industry body, reckons the strikes could cause £1.5bn in lost sales as companies cancel or scale down Christmas-party plans and workers stay at home.

Both sides seem to be digging in. On December 12th the RMT said its members had rejected a fresh offer from Network Rail of a 5% pay rise this year and 4% in 2023. That was in part, it said, because Network Rail wanted to make job cuts and force more "unsocial hours" on workers. On the same day Unite, which represents a small number of railway workers, said its members had voted to accept this offer. The Rail Delivery Group (RDG), which represents the



companies that operate trains, has offered 4% this year and 4% next; the RMT has rejected that proposal, too.

The union's critics point out that these offers compare well with those made to nurses and teachers, who are more highly skilled than many who work on the railways. The RMT counters that it has rejected the RDG pay rise largely because it would be funded by reforms that it deems unacceptable. Ministers riposte in turn that these changes are essential to modernising the railways, especially in a post-pandemic era of remote working. The Office for National Statistics says that 14% of British



The Lynch who threatens Christmas

workers now work entirely at home; around a quarter stay at home for at least part of the week.

Some of the mooted reforms are reasonable. They include the closure of more ticket offices: in an era in which tickets are increasingly bought online and collected from machines, that seems inevitable. Including Sundays in the contractual definition of the working week, rather than leaving it as a day when employees can choose to work, also makes sense. The expansion of "driver-only trains", with station staff doing some of the work currently done by on-board train guards, would need to be managed carefully; Mr Lynch has repeatedly argued that trains without guards compromise the security of disabled and female passengers. Yet given that train companies have seen revenues fall by 20% since the pandemic, according to the RDG, the railways must be made more efficient.

The government seems to be in no mood to compromise. This month the *Financial Times* reported that ministers had prevented rail employers from offering a 10% pay rise over two years. (Mark Harper, the transport secretary, has denied this.) Although the government says it is up to rail employers to negotiate terms with unions, railways are a public utility, overseen and subsidised by the government. It seems unlikely that pay offers to railway workers will be increased before those to nurses and teachers.

Many rail commuters, who tend to be an affluent bunch, can find other ways to travel to work or just stay at home. Indeed, some commuters from the prosperous Home Counties harrumph that there are plenty of problems with trains on non-strike days; at least when industrial action is announced, they can plan for it. "There's a political calculation that there are votes in being anti-union," says Edmund Heery, a professor of employment relations at Cardiff Business School. That depends on which group of workers you are talking about. Public support for strikes by nurses, who staged the first of two planned walk-outs on December 15th, and postal workers is higher than it is for railway workers, for example (see chart).

The government is planning to pass legislation that would make it harder to strike. The Trade Union Act of 2016 already means that workers in some sectors can strike only if 40% of members vote for industrial action (and if 50% of members turn up to vote). Rishi Sunak, the prime minister, has said that he wants to pass a new "minimum-service-level" law that would make it harder for transport workers to walk out. Such legislation would not come in time to prevent the current rash of train strikes; it may even prolong them, if the RMT wants to make life difficult for the government while it can. ■

Bagehot | Royal rumble

Why do Harry and Meghan wind people up so much?



IN 1901 EDWARD VII was waiting in Portsmouth for the return of his eldest son, who had been on a tour of the British empire. To pass the time, he pulled a prank on his grandchildren who were waiting alongside him. "Our parents, he reminded us, had been exposed for a long time to the fierce tropical sun and in all probability their skins had turned black," recalled the Duke of Windsor, who was seven at the time, and would go on to accede to the throne 35 years later. "Needless to say I was horrified," wrote the former monarch in his memoir. "To my immense relief...their complexions were still as naturally white as I had remembered them."

Published in 1951, "A King's Story" is a tell-all tale of press intrusion, casual racism, stuffy courtiers refusing to modernise an outdated institution and a man falling in love with an American divorcee. Seven decades on and a new version of an old tale has emerged. "Harry & Meghan", a Netflix documentary about the royal couple, is a tell-all tale of press intrusion, casual racism, stuffy courtiers refusing to modernise an outdated institution and a man falling in love with an American divorcee.

Harry and Meghan are far from the first to break the dictum of Walter Bagehot, a former editor of *The Economist*, and let daylight in on the magic of monarchy. For much of the 20th century the magicians wandered round the stage with their trousers round their ankles. When not writing scurrilous memoirs, the Duke of Windsor siddled up to Nazis and griped about his royal stipend (worth the best part of £1.4m, or \$1.7m, per year in today's money). Princess Margaret, the late queen's sister, enjoyed a well-reported, gin-soaked existence in the Caribbean. During the 1980s and 1990s it was impossible to open a newspaper without being exposed to the toe-sucking excesses of minor royals.

Yet there is something about Harry and Meghan that drives a slice of Britain insane. One Conservative MP tabled a proposal to strip the duo of their royal titles, aiming a kick at Britain's rickety constitution. Social media froths with indignation at each glossy episode, in which the duo explain at length why they quit their royal duties. Harry, once the most popular royal, is now among the least. Meghan ranks above only Prince Andrew, who was accused of sexually assaulting a minor (he denied the allegations; the parties reached a settlement earlier this year).

Part of the backlash is understandable. Watching a documentary in which the subjects have been paid a reported \$100m to moan about their lives sticks in the craw. Some abuse suffered by the couple is vile; some is banal. At one point newsreel footage compares Meghan's hats to "the happy poo emoji", before cutting to the duchess looking sad. Harry complains that the monarchy is a hierarchy, which is akin to moaning that water is wet.

At the heart of the documentary is the idea that the monarchy, and Britain at large, is inherently racist. This raises hackles, even if it should not. In absolute terms, the duo have a point. It is impossible to wander round a British palace and not think that racism was a ladder for those who lived in them. A country that still dishes out Orders of the British Empire probably has a few issues to work through. Coverage of their courtship had racist overtones. Meghan's maternal line, a middle-class black family from Los Angeles, were painted by the press as "(Almost) Straight Outta Compton", where they did not grow up.

In relative terms, however, Britain has a proud record. On most metrics Britain has a better record of integration than its European peers. The government is stuffed with high- (and low-) achieving ethnic minorities, including, in Rishi Sunak, the country's first ethnic-minority prime minister. When it comes to race, Britain is both a relative success story and a failure. Neither side of the debate will back down because neither side is wrong.

Harry and Meghan have inserted themselves in a wider civil war among the Establishment. Once it was fairly easy to identify the "pale, male and stale" types who ran Britain's institutions. Harry and Meghan personify a new Establishment, which is international, diverse and stridently progressive, and which increasingly sets social norms. Harry, a former squaddie who was once filmed calling someone a "Paki" and a "raghead", has repented and now speaks of "unconscious bias". For Conservative MPs who spend their days raging against the "woke" and the "blob"—their nickname for civil servants and leftie lawyers who thwart Tory will—the documentary is another assault in a broader conflict.

The show also rubs up against a new age of deference towards the royal family. During the 1990s Britain's newspapers were almost sociopathic when it came to covering the monarchy. In 1993 newspapers published a mortifying transcript between Prince Charles and Camilla Parker Bowles in which the then heir to the throne joked about being reincarnated as a tampon. The Sun ran a poll of readers to determine whether they should publish the transcript. Readers said "yes". Skip forward 30 years and the press are a praetorian guard for the main strand of the monarchy. Harry and Meghan do suffer from media attacks, but because they have veered from The Firm, not because they are part of it.

Coronation Street

British newspapers may have been brought to heel but the royal family is beginning to lose control of the narrative again. The monarchy's image is forged in California as much as Fleet Street. "Harry & Meghan" comes alongside "The Crown", Netflix's sprawling drama of the monarchy under Elizabeth II, which is a de facto documentary for many viewers.

The institution is becoming a soap opera once more, with rogue elements scattered across the world settling scores, and no matriarch to step in. For all the anger they excite, Harry and Meghan represent a return to a bumpy norm, rather than a new threat. There is a great deal of ruin in a nation; there is also a great deal of embarrassment in a monarchy. ■



Covid babies

Unsteady start

KAMBIA AND SÃO PAULO

The pandemic's indirect effects on small children may last a lifetime

M ENUMATU NALLO's group meets beneath a tree in Kambia, a town in north-west Sierra Leone. Some 40 women (and a few men) gather on plastic chairs. Brandishing picture cards, Ms Nallo reminds her neighbours which foods are good for pregnant women to eat. She implores young mothers to feed newborns only breast milk, and to reject cups of water offered by well-meaning relatives. Ms Nallo likes to open her sessions with a Christian prayer. She ends them with a Muslim one.

Mother-and-baby groups are an important defence against sickness and malnutrition in this corner of Sierra Leone. Illiteracy makes it difficult to share messages in other ways. But for a year after covid-19 arrived in Sierra Leone, such gatherings could not happen. Mohamed Bangura, a health worker, says parents avoided bringing small children to hospitals. Many went unvaccinated; some underfed kids got no food aid. At least one of the toddlers fidgeting on laps at Ms Nallo's meeting has the tell-tale discoloured hair of malnutrition.

In the lottery of life, well-off and sup-

portive families and societies give children a big leg up. But random shocks during early childhood can make a big difference, too. In Indonesia, for example, children who are born in years with lots of rainfall tend to be wealthier than average in adulthood. In America, research shows that people who were in utero in late 1918, at the height of the Spanish flu, were 5% less likely to complete high school and earned a bit less as adults.

The world's most recent pandemic, too, has dealt children under five years old a bad hand, with possibly long-lasting effects. The problems include much higher rates of malnutrition, scantier attention from stressed-out care-givers, and reduced access to pre-schools. The clearest data come from rich countries, but the worst impacts will probably be in poor ones.

The pandemic can hurt babies before they are born. Small children are much less likely than adults to get very ill if they catch covid. But pregnant women are a bit more likely than average to get severe symptoms, which increases the risk that their children will be born prematurely or have a

low birthweight. The pandemic also caused many expectant mothers to undergo extreme stress, which studies show can affect unborn children. Research in Sweden, for example, has found that children of women who lose a relative while they are pregnant are more likely to suffer attention deficit disorder, anxiety or depression when they grow up.

The number of newborns getting their shots fell significantly during the pandemic. The share of small children fully inoculated against diphtheria, tetanus and pertussis—a benchmark for vaccine coverage more generally—went from 86% before the disaster to 81% last year. In the first two months of 2022 there were around 80% more cases of measles worldwide than in the same period of 2021, in part because of fewer jabs. Polio is popping up in places where it had not been seen for decades.

Diets have worsened, too. Even before the disaster more than 45m children under the age of five (around 7% of the total) suffered from wasting, the most acute form of malnutrition. Around 150m (or 22%) suffered stunting, in which prolonged malnutrition stops children's brains and bodies developing properly. The pandemic pushed up food prices, while also forcing many adults to stop work. In 2021 a group of researchers warned that by the end of this year the number of children with wasting could rise to 60m—a roughly 30% increase since the start of the pandemic.

Stress and distraction made some parents more distant. LENA, a charity in Colo-►

► rado, has for years used wearable microphones to keep track of how much chatter babies and their care-givers exchange. During the pandemic the number of such "conversations" declined. Jill Gilkerson of LENA notes that parents who had to start home-schooling older children might have had less time for little ones. But getting lots of interaction in the early years of life is essential for healthy development, so these kinds of data "are a red flag".

Children starved of stimulation at home also had fewer chances to find it outside. In 2020 early-childhood education "went literally to zero" in many parts of the world, says Jaime Saavedra of the World Bank. Virtual schooling was hardly an option for tiny tots. In developing countries pre-schools tended to stay closed longer than grade schools because of safety worries. These were often exaggerated: though small kids are not keen on social distancing or masks (of the non-Batman sort), they are less likely to get sick from covid.

At a pre-school and crèche in São Paulo, in Brazil, toddlers are back to smearing their lunches on tables after closures that lasted far longer than in most places. But Claudia Russo, the head, says many of them went hungry during lockdowns. She laughs at the idea that they could have continued learning at home: "Can you imagine how difficult online classes are with children aged zero to three?" Even when her pre-school reopened, Ms Russo says, lots of children stayed away.

In school-age children, the pandemic's impacts are obvious in test scores. Measuring the cost to babies and pre-schoolers is harder. Tools for tracking early child development are not as sophisticated, and the impact of shocks in early childhood can take years to appear. Researchers are focusing on detecting delays among children in the phase of early development from conception to two years of age. But they often lack good enough data from before the pandemic to make rigorous comparisons, warns Emily Oster, a health economist at Brown University. Others have been forced by covid to change how they do their studies (by donning masks when examining children, or switching from in-person tests to parental surveys). That makes changes over time hard to detect.

A study published in October weighed the findings of eight early experiments, carried out in America, Canada, China and Kuwait. It concludes that in most regards babies born or raised in the first year of the pandemic are doing no worse than infants before them. But they were more likely to score poorly on tests that measure early communication skills. One of the study's authors, Alireza Shamshirsaz of Boston Children's Hospital, says it is impossible to say whether lagging children will swiftly catch up, because the social changes dur-

ing covid are unprecedented. As children grow up, he says, researchers may find more reason for concern.

For the millions of young children who went hungry because of the pandemic, poor outcomes are easier to predict. Children who suffer from malnutrition risk "lifelong, irreversible consequences" even after their diet recovers, says Saskia Osendarp of the Micronutrient Forum, a research and advocacy group. Hunger has a wretched impact on growing brains. A study in five low- and middle-income countries found that stunted children complete one fewer year of schooling. Another study of data from dozens of developing countries estimated that stunting reduced earnings by 22%. Women who were stunted in childhood are more likely to suffer complications during childbirth. Their own children are also more likely to be malnourished.

Suffer the little children

Perhaps the firmest evidence relates to missing pre-school. Researchers in Latin America, where nursery closures were especially lengthy, have lately found large declines in the share of children acquiring skills needed to make a good start in school. By late 2020 three- and four-year olds in Chile were performing very poorly in simple language tests, says Florencia López Bóo of the Inter-American Development Bank. She says the effect was as if their mothers had lost five years of education (children with better-educated parents tend to do much better in tests).

The number of pre-schoolers who would fail a benchmark test of academic, physical and emotional development rose about 13% globally in the pandemic's first year, according to estimates by academics in Africa, America and Europe. They are likely to score lower marks during their school years; that could mean lower wages. UNICEF, the UN agency for children, thinks pre-school closures during 2020 alone could cost children \$1.6trn in lost lifetime

earnings, equivalent to 1.7% of global GDP.

Though widespread vaccination has made covid-19 much less lethal, conditions that harm young children persist. Malnutrition is "perhaps even worse than in 2020, when covid hit hardest," says Ms Osendarp. Many emergency support programmes put in place during the pandemic expired just as new challenges to food supplies—such as Russia's invasion of Ukraine—turned up. In July the WHO and UNICEF said that a combination of low vaccination rates and high rates of malnutrition threatened to "create the conditions for a child survival crisis".

In Brazil, the share of people who cannot consistently get enough food has risen from 9% in 2020 to 16% this year, reckons Rede PENSSAN, a charity. Luciana Quintão of Banco de Alimentos, another NGO, says she recently watched in alarm as a pregnant woman filled a shopping basket with instant noodles. The global nutrition situation is "continuing to deteriorate", says Yvonne Forsen, who leads the World Food Programme (WFP) office in Sierra Leone. Projects such as the mother-and-baby groups, which the WFP is supporting, do good. Still, "You solve one problem and then you realise there's another problem waiting down the road."

Renewed efforts to feed and vaccinate small children are essential. But providing more and better pre-schooling would also help. The fear is that pre-schools will henceforth find it harder to compete for funding and attention, since primary and secondary schools are demanding more resources to help pupils catch up. Investment in pre-schools had been growing, says Amanda Devercelli of the World Bank: "I worry that some of the momentum we had before the pandemic could stall."

The latest detailed figures, from the end of 2021, suggest that pre-school attendance in England was still only about 80% of the level before the pandemic. That may be because parents are still worried about infections, or because hard-pressed families have become less keen to pay. Enrolment in American pre-schools plummeted by 25% from 2019 to 2020, according to census data, and seems not to have fully bounced back. Some American nurseries still require small children to spend their days in masks. That does little for their health or others'. It may, however, make school less educational and less fun.

All this means that teachers in early primary grades will have a lot more work to do. In many countries lots of children were already repeating their first year, in part because they turn up wildly unprepared. This makes for big class sizes, which in turn make lessons less effective. This cycle could now grow more entrenched, worries Ms Devercelli. Small children will end up paying the price. ■

Wasted youth

Prevalence of acute malnutrition*, %
Children aged under five



*Defined as low weight-for-height

†Estimate. Source: "Economic shocks predict increases in child wasting prevalence", by D.D. Headey & M.T. Ruel, 2022

**Nuclear energy**

Meltdown alert

PARIS

France's once-proud nuclear industry wants to thrive again.**Step one: avoid imploding**

NUCLEAR POWER seems tailor-made for this day and age. It emits next to no carbon. It provides reliable baseload electricity, vital when sun isn't drenching solar panels or wind isn't wafting through turbine blades. And it does not leave its operators hostage to dictators like Vladimir Putin, who has throttled the supply of Russian natural gas to Europe in response to Western sanctions over his war in Ukraine. With memories of the Fukushima meltdown in Japan 11 years ago fading, countries from Britain to India view fission as a critical part of their future energy mix. Even in nuclear-sceptical Germany, which vowed to shut its nuclear reactors in that disaster's wake, the government has extended the lifetime of the three remaining ones until April 2023.

If there is one country that should already be enjoying the benefits of abundant carbon- and autocrat-free power, it is France. A fleet of 56 reactors make up around 70% of its electricity-generating capacity, the highest share in the world and more than three times the figure in America. The average French resident

emits just 4.5 tonnes of CO₂ a year, much less than gas-addled Germans (7.9 tonnes) or car-crazy Americans (14.7 tonnes). As for Mr Putin's energy blackmail, on European minds again as a mild autumn gives way to a frigid winter, you might expect the French to react with a Gallic shrug.

France should, in other words, be basking in the warm glow of controlled fission reactions. Instead a decade of mismanagement and political mixed signals has brought its nuclear industry to the brink of implosion. A quarter of the fleet is out of action owing to maintenance and other technical problems. Experts warn of possi-

ble power outages during extreme cold spells later this winter. To keep up with demand, France has to import pricey electricity, from Germany of all places. The fleet's state-controlled operator, EDF, is being fully renationalised to save it from bankruptcy. The company's newly appointed boss, Luc Rémont, talks of a "serious crisis".

A lot is riding on its resolution. Europe is counting on the French nuclear industry to stop being a drag on the continent's strained energy system. Emmanuel Macron, France's president, is counting on it for a national nuclear renaissance. And its success may determine whether the world's newer nuclear converts see the French experience as an inspiration—or a cautionary tale.

To understand France's nuclear predicament consider its roots in the oil shock of 1973. At the time, most French power plants ran on petroleum. As the fuel became scarce, French politicians concluded that true sovereignty required an energy source France could control. Nuclear power fitted the bill. France knew something about the technology, having built an atom bomb and nuclear submarines. It boasted a cohesive corps of engineers, most of whom attended the same university, the École Polytechnique. And a centralised political system allowed the powerful executive branch to ram through the ambitious programme with little input from the French public or their elected representatives.

This rapid ramp-up enabled France to enjoy what industry types call the "fleet" ➤

→ Also in this section

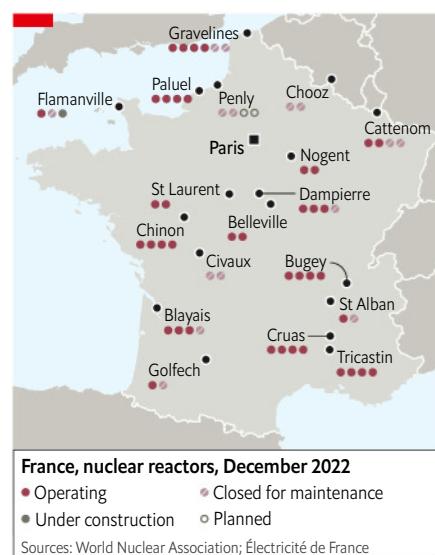
65 Mumbai's shabby business district**65 Downsizing tech HQs****66 Microsoft flirts with finance****66 Germany's glum shopkeepers****67 Bartleby: The purpose of paper****68 Schumpeter: Port of Los Angeles**

► effect". Building a reactor is complex and requires a lot of learning by doing. So long as you keep doing, the expertise grows, making each new project easier. Between 1974 and the late 1980s EDF brought reactors online at a rhythm of up to six a year, with construction crews moving swiftly from one plant to another (see chart).

However, the French approach has created lingering problems. On the technical side, squeezing a lot of construction into a few years means that reactors undergo their big decennial refit (*le grand carénage*) around the same time. And since they are built to the same standard, problems found in one trigger repairs in others. As a result, French reactors' "load factor", a measure of whether a plant is running at full capacity, hovers at 60% or so, compared with more than 90% in America. In 2021, 5,810 reactor-days were lost to outages, of which almost 30% were unplanned, according to the "World Nuclear Industry Status Report", an independent publication. The latest refits keep revealing ugly surprises: a year ago EDF discovered cracks, due to corrosion, in the emergency core-cooling systems of some reactors, leading the company to shut down 19 of them. Fifteen remain idle.

Meanwhile, with little accountability and oversight the industry became a state within a state, characterised by what one former insider calls "a serious lack of self-doubt". This led to some terrible business decisions. In the early 2000s Framatome, the company that built reactors for EDF, developed ambitions of its own. Under new management—and a new name, Areva—it signed a contract with Finland to build a new type of plant, the European pressurised-water reactor (EPR), developed jointly with Siemens, a German conglomerate. Not to be outdone, EDF decided to build its own EPR at home in Flamanville, and sell others to China and Britain.

Areva and EDF both started construction before they knew what exactly they would build and how much it would cost. As often happens in Franco-German pro-



jects, the EPR was an unwieldy beast, not least because it had to satisfy both countries' nuclear inspectors. The upshot is that neither reactor has yet produced much electricity. Both are way over budget. The Finnish project, at Olkiluoto, bankrupted Areva, whose reactors business EDF took over in 2017. The cost of Flamanville has gone from €3.3bn in 2007 (then \$4.8bn) to €19bn (including financing) and counting.

Atom's heart smothered

Bypassing the legislature, meanwhile, may have speeded things up at first but has made French nuclear policy vulnerable to political winds. In 2012 François Hollande, a Socialist, convinced the Greens to back his presidential campaign in exchange for a promise to close France's two oldest reactors and limit nuclear power in the electricity mix to 50% by 2025, which implied the closure of up to 20 reactors. Mr Hollande kept the first promise but not the second. Still, the prospect of decommissioning helped put the fleet effect into reverse. Just as nuclear success begets more success, nuclear failure feeds on itself, as lost expertise gets harder to replenish.

Mr Macron now wants to undo the damage. Even before Mr Putin attacked Ukraine in February, the French president announced a plan to build at least six new reactors, and up to 14 if things go well. "We have to pick up the thread of the great adventure of civil nuclear energy," he declared. Barring last-minute legal hiccups, the French state will have full control of EDF by the end of the year, recreating a certain *unité d'action*. "The state is now fully back in charge," explains Emmanuel Autier of BearingPoint, a consultancy.

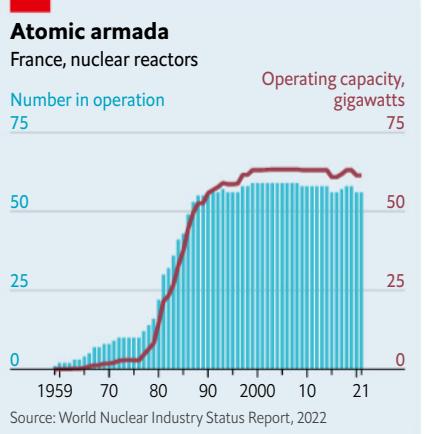
The next, harder task is for the president's hand-picked EDF boss, Mr Rémont, to get as many of the shut reactors back online as he can. EDF has pledged to have most of them up and running by January,

which seems ambitious. The new CEO must also deal with the bill for the outages, and for the government's cap on tariff rises, imposed to placate voters. This, plus the requirement to sell some power at a discount to rival suppliers, could push EDF into a €42bn gross operating loss this year, reckons Moody's, a rating agency. With net debt already at €90bn, up from around €70bn a year ago, Mr Rémont must convince the French state to provide the firm with additional capital to pay for the upcoming big refit, which could cost €50bn-60bn, and Mr Macron's six new reactors, which would add up to about the same, all told. And he has to persuade the EU's competition enforcers to turn a blind eye to the state aid and refrain from insisting that EDF spin off its profitable global renewables business.

More difficult still may be building the new reactors. EDF engineers have been working on a fresh design, called EPR2. Gone are many parts needed to comply with German rules. Components will be standardised. Instead of 13,309 different faucets and valves, the EPR2 is to sport only 1,205. And it will be built in pairs, with 18 months between the start of construction of the first and the second reactor.

To ensure everything goes smoothly, EDF has added a head of "industrial quality" to its executive board. In this role Alain Tranzer, a former carmaking executive, has launched "Excell plan" to fortify the ecosystem of nuclear-related companies, digitise the surprisingly analogue industry and introduce better project management. As part of the plan, in April France created a University for Nuclear Trades and in October EDF and its partners added a school for welders, who must bind a reactor's 370km or so of pipes so tightly that no superheated, often contaminated water can escape; such technicians are so scarce in France that EDF has had to fly them in at a high cost from America and Canada.

Not everyone is convinced of the new strategy. "They are making the same mistake again by starting before detailed engineering is completed," says Mycle Schneider, co-ordinator of the report on the state of the industry. EDF has invested more than 1m engineer-hours in the EPR2, but another 19m may be needed to fine-tune the design. Even some government experts have doubts about whether EDF can deliver six EPR2s on time and on budget. A leaked internal memo from late 2021 warns that the first pair may not be ready before 2043, not by 2035 as promised, and could cost €21bn in today's money, rather than €17bn-18.5bn. France's Court of Audit has calculated that in 2019 a megawatt-hour (MWh) of nuclear power cost nearly €65 to generate (taking into account construction costs). The EPR2 may be able to produce it more cheaply, but certainly not for €15 and €46 that Spaniards ►



► and Germans, respectively, already sometimes pay per solar mwh.

Recreating the broader tailwinds that helped France launch the fleet effect in the 1970s and 1980s will not be easy, either. France is no longer the industrial power it once was, limiting the pool of candidates to the new university and welding school. It may be hard to recruit the skilled workers needed, beyond the 220,000 that already work in the sector. And although the reputation of nuclear power is improving—two-thirds of French think that it has a future, up from less than half in 2016—local protests are likely near proposed plants. “We have to be very humble about our capacity to build new reactors,” cautions Nicolas Goldberg of Columbus Consulting, a firm of advisers. For the French, a nation not known for humility, that may be the hardest test of all. ■

Commercial property

Log off-ice

Tech lay-offs are the latest blow to landlords

NOT LONG ago, big tech was splurging on flashy office space to woo talent. Money sloshed around and a hiring boom was under way. Even as the pandemic forced programmers and software engineers to work remotely, tech giants splashed out on lavish workplaces. Google has been beavering away on a sprawling complex in London with a 25-metre swimming pool and a rooftop running track, due to open in 2024, while shelling out \$1bn on another build-

ing in the city. Amazon said it would add a dog-day-care facility and hiking trail at its new complex in Arlington, Virginia. In the two years to March, other tech companies across America and Canada added enough office space to fill the Empire State Building more than 20 times over.

As recession looms and businesses tighten their belts, surplus office space presents an easy target. This is especially true in tech, which is sacking workers en masse. Technology firms around the world have announced 150,000 job cuts so far this year, according to Layoffs.fyi, a jobs-data website. On December 13th Amazon delayed the start-dates for graduates who were meant to begin work in May to the end of 2023. Bad news for tech workers is also bad news for tech landlords.

Meta (which is laying off 13% of its workforce) has abandoned plans to expand in New York. So has Amazon, which has also paused construction on six new buildings in Tennessee and Washington state. Snap, which has sacked a fifth of its workers, has permanently shut its office in San Francisco. Twitter has reportedly stopped paying rent. Netflix, Lyft and Salesforce, among other downsizers, are trying to sublet unneeded property. It all adds up to a lot of empty desks. Since early 2020 office space available to sublet across America's top 30 tech markets has more than doubled (see chart on next page) to a record 142m square feet (13m square metres).

This puts an end to a decade-long office expansion. Since 2010 tech firms have acquired more space than any other industry, accounting for 17.5% of leasing activity in America. In 2021 a fifth of all leased office space was taken up by tech companies. Big tech signed more than a third of the largest leases by floor space last year.

And landlords have more to worry about more than nervy tech darlings pulling back. The spillover from a shrinking tech sector will hit the broader economy, and with it demand for offices of all kinds. An analysis of 11m American workers in 2012 by Enrico Moretti of the University of California, Berkeley, shows that for every new high-tech job in a city, two well-paid professional positions are created outside the industry. Cities where tech jobs are booming generate other professional positions at twice the national rate.

The property sector's tech problem compounds an underlying malaise. Even as crowds have flocked to busy restaurants, concerts and other public spaces, companies are still questioning whether office life will return to something resembling the pre-pandemic normal. At the start of lockdowns, some argued that remote work would permanently reduce companies' property needs. Others believed that office life would eventually return. More than two years on, the evidence suggests remote ►

Business districts

A Taj of class

MUMBAI

The historic home of corporate India needs sprucing up

EVERY INDIAN business dreads waking up to a bill from the state. So too the Taj Mahal Palace. The Mumbai Port Trust, owner of the land upon which the landmark hotel sits, is demanding \$92m in retrospective rent for the years 2012-22. The Taj, which is owned by Tata Group, a conglomerate, has called the demand “exorbitant and untenable” in a petition to the Bombay High Court. The claim’s size and the Taj’s prominence make the claim unique. But many tenants get similar treatment. As a result, Mumbai’s old business district, once home to many global firms, has slid into disrepair.

Mumbai grew out of a natural deep-water harbour. The Port Trust was established in 1873 to administer both shipping and ancillary businesses such as piers, warehouses, refineries—and hotels. Rather than sell land outright, the trust leased plots on 940 hectares (2,300 acres) for periods of up to 99 years. All those original leases have expired, the Taj’s at the turn of the millennium.

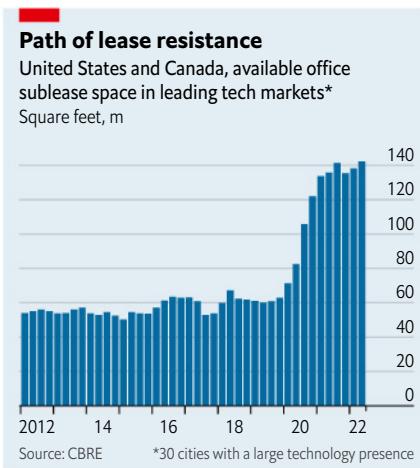
What followed is a muddle. Some of the leases, including the Taj’s, have been rolled over. Some tenants pay what they owe, some pay sometimes, some don’t. From the early 1990s some began challenging the trust’s rent revisions in the courts. Eviction notices are sent but stayed, pending court hearings. Of the 3,000 or so tenants on trust land, more than 1,200 are now litigating. The agency has had to hire more than 200 outside lawyers to deal with the caseload. There is some debate over whether even one of



Its pickle is palace-sized, too

these cases has actually been resolved.

The Port Trust says the rent rises are determined by a formula tied to market rates. But transactions are rare, so finding the market rate is hard. By one reckoning not one new lease has been signed in 20 years. A consequence of the stalemate has been that, with the exception of the Taj and a few others, many beautiful buildings have not been maintained. The uncertain legal status give tenants little reason to invest in the property. Nor can they transfer it to new tenants. The Taj kerfuffle may at least accelerate welcome changes. The Port Trust has quietly been drafting new, more flexible rules to ease the process of renewals. Better a century late than never.



► working is here to stay. Many office buildings in New York, San Francisco and other cities remain ghostly quiet: around one in five offices across the country is empty.

Long leases obliged firms to hold onto offices even as lockdowns emptied them. A record number of leases are now set to expire, offering a chance to trim unwanted space. In 2022, 243m square feet will have hit the market in America, equivalent to more than one in ten leased offices, according to JLL, a property firm. By 2025 another 650m—more than all the office space in Manhattan—is up for renewal. Unless the economy rebounds spectacularly, and businesses sour on working from home, landlords will be stuck with too much room for comfort. ■

Technology and money

Silicon Wall Street

Big tech pushes ever further into big finance

WITH NO END to the tech downturn in sight, the industry's titans are eyeing new markets. The bigger, the better: in the past year the combined revenue of Alphabet, Amazon, Apple, Microsoft and Meta reached \$1.5trn, so further growth that moves the needle can only come from a giant business. One candidate is finance. What is more, that industry generates petabytes of data, the crunching of which is a core competency of tech firms. And it is dominated by stuffy, old institutions. For a tech CEO, it looks ripe for disruption.

One such boss is Microsoft's Satya Nadella. On December 12th his company announced a ten-year deal to provide cloud-computing and data-analytics services to the London Stock Exchange Group. As part of the transaction, Microsoft has agreed to

pay £1.5bn (\$1.9bn) for a 4% stake in the financial-services firm. This follows a tie-up last year between Google Cloud Platform, Alphabet's cloud business, and CME, one of the world's busiest derivatives exchanges. Weeks later, Amazon Web Services (aws), that giant's cloud division, announced a similar arrangement with the Nasdaq stock exchange.

It is not just exchanges. Almost all banks and insurers now use big tech's cloud services, including increasingly sophisticated and tailor-made analytics, often powered by artificial intelligence. In October the Options Clearing Corporation became the first clearing house to get permission from American regulators to move its core operations on to the cloud.

Another big market is digital payments. These make purchases smoother for customers, while allowing tech firms to collect data to improve the overall user experience on their platforms, explains Alina Lantsberg of Oliver Wyman, a consultancy. Three in four iPhone users have now activated Apple Pay on their devices, compared with a third in 2018, according to Bernstein, a broker. Apple, Google and Meta also offer peer-to-peer transfers.

Amazon and Apple are experimenting with credit. Amazon helps merchants on its marketplace to secure loans, and in June Apple announced plans for a "buy now, pay later" (BNPL) service. Both firms already sell credit cards. Apple's credit cards are issued and underwritten by Marcus, Goldman Sachs's consumer-banking arm. But in June the iPhone-maker said it would handle the lending for its BNPL service. That may explain why it acquired Credit Kudos, a credit-reference agency, in March. Apple does not publish results for its consumer-finance business, but analysts put its annual revenue at between \$1.7bn and \$3bn—less than 1% of Apple's total but not to be sniffed at.

Two factors could limit big tech's financial ambitions. One is that financial firms are valued cloud customers, which could be lost if big tech starts to feel like competition. That was said to be the reason why Google binned its attempt to offer online checking and savings accounts in 2021. Amazon and Microsoft have their own cloud relationships to nurture.

Then there are the regulators, many of whom already hold a dim view of big tech and are watching its advances into finance closely. The Bank of England has said it wants to stress-test cloud providers because so many banks use their services. In America the Consumer Financial Protection Bureau has ordered the tech giants to share information on their payment systems. The further tech moves into finance, the more it may have to be treated like a bank. There is only so much disruption that financial regulators will brook. ■

Retailing

Cutback Christmas

BERLIN

German shopkeepers aren't feeling very festive

WHEN THE Kaufhaus des Westens (kauf-dewe), a temple of consumption in West Berlin, celebrated its 115th birthday last month with a glitzy champagne party for 2,000, the mood was sparkling. A row of brightly lit Christmas trees greeted partygoers when they entered the ground floor of the grand old lady of Berlin's department stores, where Chanel, Dior, Gucci, Tiffany's and other luxury brands vie for their attention. As guests danced through the night, the war in Ukraine, sky-high inflation and other worries seemed far away.

That cheer, also on display at Christmas markets around Germany, disguises deep unease—among shopkeepers and their clients alike. Only around a quarter of 400 retailers surveyed by Handelsverband Deutschland (HDE), the retail association, are happy with the Christmas shopping season so far. Retail sales in October were a bad omen, plunging by 5% compared with last year, a bigger drop than expected. That month consumer confidence sank to the lowest level since gfk, a research firm, started to survey it in 1991.

By early December shoppers were buying sweets and trinkets that can be stuffed in boots on St Nicholas's Day, when children receive small gifts, but steering clear of high-margin big-ticket goods. HDE is forecasting the deepest slump in Christmas sales since 2007. It expects retailers to sell 4% less in the two months before Christmas relative to the same period in ►



Dark mood at the Christmas market

► 2021 (adjusting for inflation).

Has the worst passed? "October was the nadir," thinks Rolf Bürkl of gfk. Inflation, energy bills, the war in Ukraine, the strong dollar: consumers were under siege on all fronts. The mood has lifted a little since, for two reasons. The price of petrol is down, which has a strong signalling effect as motorists see it most days, prominently displayed at service stations. As a one-off gift, the government will foot the gas bill for households and businesses in December. Next year it will introduce a "double ka-boom", a subsidy to cover 80% of individuals'

and companies' expenditure on natural gas, based on consumption in the previous year.

This will offer Germans some respite. But many still fear a recession, which Germany looks poised to enter. GDP is likely to contract this quarter and next, says Andrew Kenningham of Capital Economics, another research firm. That will make consumers think twice before opening their wallets. So will inflation, which stood at 10% in November, and higher interest rates, which are increasing the cost of servicing household debts.

The downturn is forecast to be relatively mild, in particular if the winter isn't too harsh. But next winter could bring more woe, warns Olaf Roik of HDE. No Russian gas will have reached Germany via pipelines (this year gas still flowed until September, when Russia turned off the taps as payback for Western support of Ukraine). Shoppers will have used up savings accumulated during the pandemic. And even with generous government assistance, energy bills could be much higher than in the past. It may be a while before German shopkeepers feel festive again. ■

Bartleby Paper traits

The enduring value of an analogue technology

THIS IS THE digital age, and the advice to executives is clear. Managers need to have a digital mindset; the organisations they run must embrace digital transformation. If you don't know what ChatGPT is, think of Dan Brown when you hear the word "code" or dislike the idea of working with a cobot, enjoy your retirement. So what present should you be getting the executive in your life this festive season? Answer: anything made of paper. Even if the recipient of your gift never uses it, it can still serve as a useful reminder of where the digital world's limitations lie.

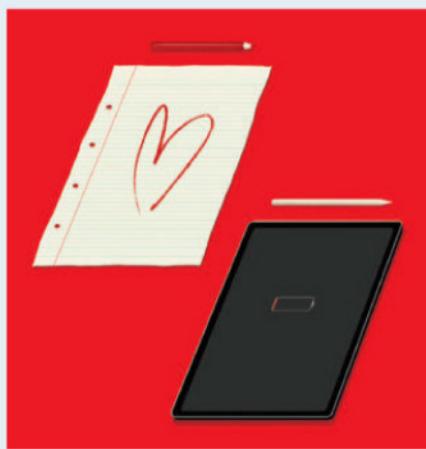
Recent research underscores the enduring value of this ancient technology, whether in making decisions, enhancing productivity or winning over customers. Start with decision-making, and a study from Maferima Touré-Tillery of the Kellogg School of Management at Northwestern University and Lili Wang of Zhejiang University. In one part of their study, the researchers approached strangers and asked them to take a made-up survey. Half the respondents were given a pen and paper to fill out the form; the other half were handed an iPad. At the end of the exercise, respondents were asked if they wanted to give their email address to receive information on how to donate to a charity. Those who used paper were much likelier to provide their email addresses.

The researchers also saw differences in behaviour when they showed Chinese university students an ad for a bookseller at the end of the survey, and then asked them to select some of the books that were being promoted. Those using paper to fill out the questionnaire chose more highbrow books on average than those using the tablet. The researchers speculate that people make more virtuous

decisions on paper because it feels more consequential than a pixelated screen. When asked, paper-and-pen respondents were indeed more likely than iPad users to think their choices were more indicative of their characters. The nib is the nub.

Next, in the right circumstances paper can improve productivity. A study from Vicky Morwitz of Columbia Business School, Yanliu Huang of Drexel University and Zhen Yang of California State University, Fullerton, finds that paper calendars provoke different behaviours from digital calendars. Users of old-fashioned calendars made more detailed project plans than those looking at an app, and they were more likely to stick to those plans. Simple dimensions seem to count. The ability to see lots of days at once on a paper calendar matters, the researchers reckon; mobile-calendar users kept to their plans more if they used a "multi-day view" on their devices.

Third, paper appeals to customers. In a study from 2017 researchers found that people assigned a greater value to the physical version of a product than its



digital instantiation. Shoppers were willing to pay more for books and films they could hold than ones they could only download. Even the sight of someone handling something can help online sales, according to a study last year by Andrea Webb Luangrath of the University of Iowa and co-authors. They found that Instagram posts showing hands touching products like cups of coffee or smartphones got more likes than those that were not being pawed. Similarly, people browsing in a virtual-reality shop were more willing to buy a t-shirt if they saw their own simulated hand touch it.

All of which helps explain why retail catalogues continue to thud onto door-mats and jam mailboxes. In a new study Jonathan Zhang of Colorado State University confirmed previous findings that consumers who receive paper catalogues as well as emails spend more than those who receive only digital marketing. Mr Zhang also delved into when these catalogues work best—as it turns out, when they are selling pricier, less functional products, and targeting consumers who do more of their shopping offline.

Technology can close the gap between paper and screen, but not entirely. Typing will never be as distinctive as handwriting. Doodling on a phone is just not as satisfying. And some of the attractions of the analogue become even clearer as digital technology becomes more pervasive and powerful. Catalogues do not have to be checked for viruses (however obsessively people wiped them down in the early days of covid-19). As machines get better at generating text, more exams and interview tests may be conducted with pen and paper, just to be sure. Mastery of digital technologies is vital. But a sense of touch, authenticity and humanity still matter—and not just on paper.



Schumpeter | Terminal velocity

A port visit reveals America's changing business landscape



IT WAS CALLED the tweetstorm that saved Christmas. In October 2021 scores of freighters idled at anchor off the west coast of America unable to deliver imports to docks already choc-a-bloc with containers. To find out what was wrong Ryan Petersen, founder of Flexport, a logistics firm, took a boat tour of America's biggest port complex. He concluded that the adjacent ports of Los Angeles and Long Beach were at a standstill largely because of a shortage of space, which meant empty containers could not be removed from the dock. "OVERWHELM THE BOTTLENECK!" he tweeted. The thread went viral. Politicians were stung into action. Long Beach relaxed restrictions on how high containers could be stacked. Goods moved again. Santa Claus heaved a sigh of relief.

In recent days your columnist took a similar boat trip. Rather than the pre-Christmas bustle, he witnessed another eerie paralysis. Except this time the cause was not surfeit but deficit. Only four container ships were docked at the Port of Los Angeles. Last year there would have been more than three times as many. There was hardly a longshoreman in sight, or crewmen on the ships. The cranes stood silently, like Ghosts of Christmas Past. The only vessel anchored offshore was an antiquated brigantine.

The languor reflected a staggering drop in cargo volumes to the two southern Californian ports, which normally welcome 37% of imports to America. On December 14th the Port of Los Angeles said import volumes fell by 24% year on year in November. The Port of Long Beach has suffered similar shortfalls recently. From a business perspective, the slump raises interesting questions about the future of inflation, the bargaining position of workers, and a shift in the country's economic geography. A good person to discuss these subjects with is Dave Clark, who until the start of this year was the logistics supremo at Amazon, and builder of one of the world's biggest supply chains. He has recently joined Mr Petersen as co-CEO of Flexport.

A self-styled "supply-chain geek", Mr Clark waxes lyrical about ports, whose importance to so many American firms was on display during the covid-19 pandemic. "They are national treasures," he says. "When you saw those trucks cruising, and the yards full...the number of ships parked, waiting to get into the port, it was a visualisation of the power of the American economy."

It was also a visualisation of the economic risks when things go awry. Supply-chain congestion was a cause of surging inflation in the pandemic, alongside loose monetary policy, fiscal stimulus and, this year, the war in Ukraine. Yet the bottlenecks ended abruptly. Ships waiting to enter both ports fell from 109 in January to 20 in June and negligible numbers in the past few weeks. Mr Clark says that in the second quarter, importers suddenly switched from wanting to get their hands on more merchandise to worrying they had too much. They rushed to cancel orders.

The result, according to Flexport, is that a record number of seaborne journeys have been cancelled in recent months, container-freight rates have plunged back to pre-pandemic levels, and shipowners have gone from feast to famine. Maersk, the world's second-largest container carrier, named a new CEO on December 12th to steer it through an "increasingly challenging" period. Its share price has tumbled since March.

This relaxation of supply-chain pressure may help explain why goods-price inflation is easing. However, goods account for only a third of consumer spending; services account for two-thirds. Moreover, as Mr Clark points out, a shortage of personnel, such as dockers, truckers and warehouse workers, means the cost of labour in the supply chain remains high. "Labour costs inside the US haven't budged," he says. "Most of the job reductions are white-collar, not front-line workers." For these reasons, he is not convinced the inflationary threat is over.

Adding to the prospect of wage inflation is union bargaining power. It has risen during the pandemic as workers went the extra mile to keep goods flowing, even as their employers, such as shipping and rail firms, raked in record profits. It is relevant in the ports of Los Angeles and Long Beach where, since July 1st, the International Longshore and Warehouse Union has operated without a labour contract as it negotiates a new one with ocean carriers and terminal operators. Both sides insist there will be no strikes or lockouts. But the fear of industrial unrest has been heightened by the recent threat of a rail strike, only averted by an act of Congress. It is all the more tricky when unions want a share of recent profits, while the shippers are braced for coming losses.

Nothing to lose except their supply chains

Mr Clark expects the discussions to remain "blustery". But the threat of something more catastrophic is not lost on importers. It has caused many to divert ships from west-coast destinations to ports in the Gulf of Mexico and the east coast, even though costs via the Panama canal are higher and shipping times longer. That is a big reason why late this summer the Port of Los Angeles lost its 22-year-old crown as America's busiest container terminal to the Port of New York and New Jersey. Added to this, Asian supply chains are beginning to shift away from China to new locations, including in South-East Asia and South Asia, that tend to send more freight via the Suez canal to America's east coast.

The change in economic geography is stark. Still, Mr Clark believes the west coast will rebound. "People have short memories and cost usually wins," he says. Though he expects the American economy to get worse next year before it gets better, he is confident trade will eventually swing back to where it was before the pandemic. The same with globalisation. If it does, ports like Los Angeles and Long Beach will have to prepare themselves for the future by becoming cleaner and more automated (though technology should "elevate" workers, he insists, not replace them). In California the optimistic pioneer spirit is alive and well. ■



Political economy

First-world problems

How the West fell out of love with economic growth

THIS YEAR has been a good one for the West. The alliance has surprised observers with its united front against Russian aggression. As authoritarian China suffers one of its weakest periods of growth since Chairman Mao, the American economy roars along. A wave of populism across rich countries, which began in 2016 with Brexit and the election of Donald Trump, looks as if it may have crested.

Yet away from the world's attention, rich democracies face a profound, slow-burning problem: weak economic growth. In the year before covid-19, advanced economies' GDP grew by less than 2%. High-frequency measures suggest that rich-world productivity, the ultimate source of improved living standards, is at best stagnant and may be declining. Official forecasts suggest that by 2027 per-person GDP growth in the median rich country will be less than 1.5% a year. Some places, such as Canada and Switzerland, will see numbers closer to zero.

Perhaps rich countries are destined for weak growth. Many have fast-ageing populations. Once labour markets are opened to

women, and university education democratised, important sources of growth are exhausted. Much low-hanging technological fruit, such as proper sanitation, cars and the internet, has been plucked. This growth problem is surmountable, however. Policymakers could make it easier to trade across borders, giving globalisation a boost. They could reform planning to make it possible to build, reducing outrageous housing costs. They could welcome migrants to replace retiring workers. All these reforms would raise the growth rate.

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Unfortunately, economic growth has fallen out of fashion. According to our analysis of data from the Manifesto Project, which collects information on the manifestos of political parties over decades, those in the OECD, a group of mostly rich countries, are about half as focused on growth as they were in the 1980s (see chart 1 on next page). Modern politicians are less likely to extol the benefits of free markets than their predecessors, for instance. They are more likely to express anti-growth sentiments, such as positive mentions of government control over the economy.

When they do talk about growth, politicians tend to do so in an unsophisticated manner. In 1994 a reference by Gordon Brown, Britain's shadow chancellor, to "post neo-classical endogenous growth theory" was mocked, but it at least indicated serious engagement with the issue. Politicians such as Lyndon Johnson, Margaret Thatcher and Ronald Reagan offered policies based on a coherent theory of the relationship between the individual and the state. GDP's small coterie of modern champions, such as Mr Trump and Liz Truss, offer little more than reheated Reaganism.

Apathy towards growth is not merely rhetorical. Britain hints at a wider loss of zeal. In the 1970s the average budget contained tax reforms worth 2% of GDP. By the late 2010s policies made half as much impact. A paper published in 2020 by the late Alberto Alesina, an economist at Harvard University, and colleagues at the IMF and Georgetown University measured the sig-►

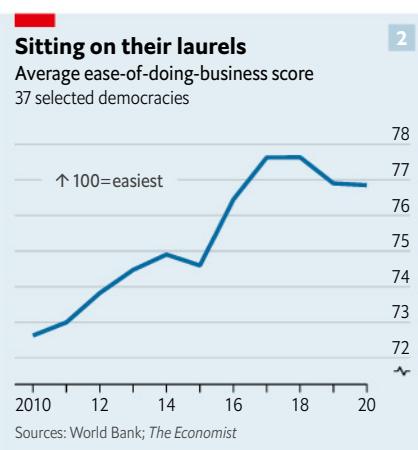
nificance of structural reforms (such as changes to regulations) over time. In the 1980s and 1990s politicians in advanced economies implemented a large number, making their economies sleeker. By the 2010s, however, they had lost their oomph: reforms practically ground to a halt.

Our analysis of data from the World Bank suggests that progress has slowed still further in recent years, and may even have reversed (see chart 2). The American government introduced 12,000 new regulations in 2021, a rise on recent years. From 2010 to 2020 rich countries' tariff restrictions on imports doubled. Britain voted for and implemented Brexit. Other countries have turned against immigration. In 2007 almost 6m people, on net, migrated to advanced economies. In 2019 the number was down to just 4m.

Governments have also become less friendly to new construction, whether of housing or infrastructure. A paper by Knut Are Aastveit, Bruno Albuquerque and André Anundsen, three economists, finds American housing "supply elasticities"—the extent to which construction responds to higher demand—have fallen since the housing boom of the 2000s. This is likely to reflect tougher land-use policies and more powerful NIMBYs. Housing construction across the rich world is about two-thirds its level in that decade (see chart 3).

Politicians prefer splurging the proceeds of what growth exists. Governments are spending a lot more on welfare, such as pensions and, in particular, health care. In 1979 the bottom fifth of American earners received means-tested transfers worth less than a third of their pre-tax income, according to the Congressional Budget Office. By 2018 the figure was more than two-thirds. According to a report in 2019, health spending per person in the OECD will grow at an average annual rate of 3% and reach 10% of GDP by 2030, up from 9% in 2018.

Politics is increasingly an arms race, with promises of more money for health care and social protection. "Thirty or 40 years ago it was taken for granted that the



elderly were not good candidates for organ transplantation, dialysis or advanced surgical procedures," writes Daniel Callahan, an ethicist. "That has changed." Greater wealth has enabled this. Yet politicians rarely ask whether an extra dollar on health care is the best use of cash. Britons in their 90s receive health and social care that costs the country about £15,000 (\$17,000) a year, about half Britain's GDP per person. Must budgets rise year after year to meet growing demand, even as the price of providing that care is also likely to increase? If yes, where is the limit?

People may see spending on health care and pensions as self-evidently good. But it comes with downsides. More people work in an area where productivity gains, and therefore improvements in overall living standards, are hard to induce. Perfectly fit older people drop out of work to receive a pension. Funding this requires higher taxes or cuts elsewhere. Since the early 1980s government spending across the OECD on research and development, as a share of GDP, has fallen by about a third.

Much of the extra spending comes at times of crisis. Politicians are increasingly concerned with preventing bad things from happening to people or compensating them when they do. The enormous system of credit guarantees, eviction moratoriums and debt forgiveness introduced during the pandemic brought bankruptcies and defaults to a halt. This was radical, but also the thin end of the wedge.

In America, for instance, the federal government has assumed huge contingent liabilities. It guarantees an ever-larger quantity of people's bank deposits; it forgives student loans; it offers a wide variety of implicit and explicit backstops to everything from airports to highways. We have previously estimated that Uncle Sam is on the hook for liabilities worth more than six times America's GDP. This year European governments have fallen over themselves to offer financial support to households and firms during the continent's energy crisis. Even Germany, normally Europe's

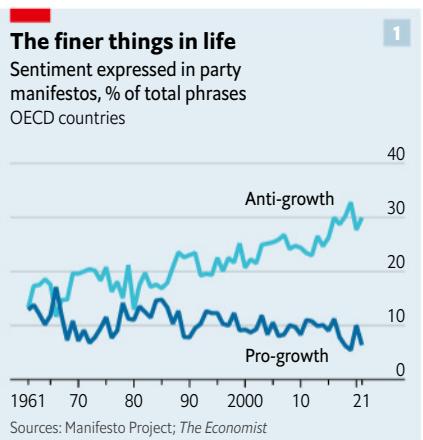
most disciplined spender, has allocated funding worth 7% of GDP for this purpose.

No one cheers when a company goes bankrupt or someone falls into poverty. But the bail-out state makes economies less adaptable, ultimately constraining growth by preventing resources shifting from unproductive to productive uses. Already there is evidence that fiscal help doled out during the pandemic has created more "zombie" firms—those which are going concerns, but which create little economic value. The huge implicit liabilities of governments also mean higher spending in times of trouble, which reinforces the trend towards higher taxation.

Why has the West turned away from growth? One possible answer relates to ageing populations. People who are not working, or are near the end of their working lives, tend to be less interested in getting richer. They will support things which directly benefit them, such as health-care spending, but oppose those that produce benefits only after they have gone, such as immigration or house-building. Their turnout at elections tends to be high, so their views carry weight.

Yet Western populations have been ageing for decades, including during the reformist 1980s and 1990s. Therefore the change in the environment in which policy is made may play a role. Before social media and 24-hour rolling news it was easier to implement difficult reforms. The losers from a policy—a business exposed to greater competition from abroad, say—often had little choice but to suffer in silence. In 1936 Franklin Roosevelt, speaking about opponents to his New Deal, felt comfortable enough to "welcome" his opponents' hatred. Now the aggrieved have more ways to complain. As a result, policymakers have greater incentive to limit the number of people who lose out, resulting in what Ben Ansell of Oxford University calls "countrywide decision by committee".

High levels of debt have also constrained policymakers' room for manoeuvre. Across the G7 group of rich, powerful



countries, private debt has risen by the equivalent of 30 percentage points of GDP since 2000. Even small declines in cash flows could make servicing the debt harder. This means politicians quickly intervene when anything goes wrong. Their focus is keeping the show on the road—avoiding a repeat of the global financial crisis of 2007–09—rather than accepting pain today as the price of a brighter future.

Quite what would push the West in a new direction is unclear. There is no sign of a shift just yet, beyond the misguided attempts of Mr Trump and Ms Truss. Would another financial crisis do the job? Will a change have to wait until the baby-boomers are no longer around? Whatever the answer, until growth speeds up Western policymakers must hope their enemies continue to blunder. ■

FTX's blow-up

Chained

WASHINGTON, DC

The game is up for Sam Bankman-Fried

ONLY A MONTH has elapsed since Sam Bankman-Fried, the founder of FTX, a crypto exchange, placed the firm, along with Alameda Research, its sister hedge fund, into bankruptcy proceedings. The exchange was unable to meet customers' withdrawal requests; the problem, it became clear, was that some \$8bn of customer assets had ended up in the custody of Alameda, and were missing. In the intervening days Mr Bankman-Fried has given countless interviews in which he has apologised, appeared confused by the unravelling of his empire, pleaded ignorance and generally tried to shift the blame.

He told "Good Morning America" that he "failed to have proper oversight". In an interview with *New York* magazine he said: "I fucked up. I did. In multiple ways, frankly." He explained to the *New York Times* that there were mysterious discrepancies between what "the audited financials were, the true financials, what the exchange understood...", and said to the *Wall Street Journal* that he could not account for the missing money: "I wasn't running Alameda."

Mr Bankman-Fried was arrested in the Bahamas on December 12th at the request of the American government. The next day he was denied bail; he is expected to be extradited shortly. The indictment charges Mr Bankman-Fried with eight criminal counts, including wire fraud against customers, lenders and investors, as well as conspiracies to commit money-laundering and commodities and securities fraud.

For good measure, he is accused of defrauding the United States by violating campaign-finance laws. The Securities and Exchange Commission and the Commodities and Futures Trading Commission, two regulators, have also filed complaints.

Some of the facts in the filings are familiar to those who have been listening to Mr Bankman-Fried's missives. He has admitted he told customers to route their funds to Alameda's bank account—he suggested this was because FTX had not set up accounts, and that the funds were lost because of sloppy accounting. The SEC complaint argues Alameda used the funds to make investments, buy lavish properties and offer political donations, and that this use of them means Mr Bankman-Fried was "orchestrating a massive years-long fraud".

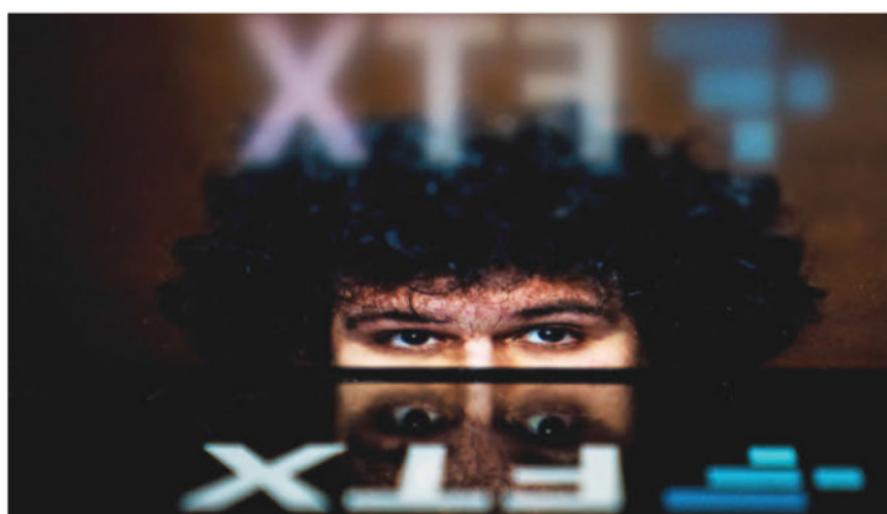
Mr Bankman-Fried has said he was unaware of what the hedge fund did with the cash. The complaint alleges he was in fact well aware, and that he set up ways for Alameda to borrow customers' funds. On multiple occasions, the SEC writes, he "directed FTX to increase the amount by which Alameda could maintain a negative balance", giving it an unofficial credit line to take customer funds. The SEC complaint also alleges that Mr Bankman-Fried made Alameda exempt from the processes by which customers' trading positions were liquidated when markets moved against them.

In May, as crypto markets crashed, despite having "already taken billions of dollars of FTX customer assets" when Alameda could not meet loan obligations, the SEC alleges that Mr Bankman-Fried "directed FTX to divert billions more in customer assets to Alameda". Most galling, perhaps, is the allegation that "even as it was increasingly clear that Alameda and FTX could not make customers whole", Mr Bankman-Fried continued to make venture investments and took out personal "loans" from Alameda for himself and other FTX higher-ups.

The sum of these actions, the SEC argues, is that there was no real distinction between Alameda and FTX, and that Mr Bankman-Fried used the hedge fund as his "personal piggy bank" without disclosing this to investors or customers. In a congressional hearing on December 13th John Ray III, appointed boss of FTX by Mr Bankman-Fried before the firm filed for bankruptcy, summarised it in a similar manner: "This is really old-fashioned embezzlement. This is just taking money from customers and using it for your own purpose."

Mr Bankman-Fried denies any illegal activity and has sought in interviews to distance himself from criminal wrongdoing. If he were successfully convicted, the former FTX boss might spend the rest of his life behind bars. When Bernard Madoff, a notorious financier who ran a Ponzi scheme, was sentenced in 2009 the judge noted that: "The fraud loss known to date, which is greater than \$13bn, is more than 32 times the baseline level of loss that would carry a sentence of life under the US Sentencing Guidelines." The judge recommended that Madoff should serve 150 years. The authorities put the cost of Mr Bankman-Fried's alleged fraud at \$8bn.

Mr Bankman-Fried seems in denial about the situation. He could not attend the congressional hearing, as he was in custody, but his intended testimony leaked. In it he claims he was manipulated into filing for bankruptcy by his general counsel, that the team in charge are mismanaging the process, and that Alameda and FTX's troubles only really began when the boss of a rival exchange tweeted he would sell FTX tokens. Mr Bankman-Fried insists the firms could have raised capital and made customers whole. When he put this to Ryne Miller, his general counsel, Mr Miller replied with an answer clear, seemingly, to everyone but Mr Bankman-Fried. "There's nothing to save, Sam." ■



Did he mention he was sorry?

The US economy

Fed rest

WASHINGTON, DC

America's inflation fever may be breaking at last

"**W**E WILL STAY the course until the job is done," said Jerome Powell, the Federal Reserve's chairman, on December 14th, shortly after the central bank's latest interest-rate rise. As a statement of intent, his words were both straightforward and utterly sensible. But what it means for the job to be done is becoming a matter of controversy. Inflation remains uncomfortably high. Meanwhile, the aggressive monetary tightening of the past year is only now filtering through to the economy, complicating assessments of whether the Fed has in fact done enough to rein in prices.

Promisingly, after a difficult two years, inflation does appear to be easing its grip on the American economy. Overall prices increased by a mere 0.1% month-on-month in November, according to data published on December 13th, making for that rarest of recent occurrences: a downside surprise. Most encouraging was a breakdown showing that core inflation, which strips out volatile food and energy costs, had decelerated for a second consecutive month (see chart).

Investors and analysts, scarred by America's relentless run of inflation, have learned to restrain their hopes after a single month of rosy data. Year-on-year rates of inflation remain elevated at 7.1% for headline inflation. But the disinflation in November follows a similarly cheerful batch of data for October. Optimism is on the rise, albeit still mostly of the cautious rather than the unbridled kind. Since mid-October the S&P 500 index of leading American firms has recovered some of the ground it lost earlier this year. Concerns are shifting to the prospect of weaker

growth. Many economists forecast a recession early next year.

For the Fed these countervailing forces create a tricky balance. On the one hand, it has just administered the sharpest tightening of monetary policy in four decades, lifting interest rates from a floor of 0% in March to more than 4% today. With inflation ebbing, it is prudent to slow the pace of rate increases. On the other hand, a perception of Fed softening risks adding fuel to the market rally. That, in turn, would cause financial conditions to ease, thereby placing upward pressure on inflation.

The Fed has tried to resolve this conundrum by maintaining its hawkish tone at the same time as tweaking its policies. On December 14th the Fed raised rates by half a percentage point, ending a string of jumbo three-quarter-point increases. Most Fed officials believe that they will raise rates to

more than 5% next year and refrain from cutting rates until 2024, according to the central bank's latest projections. "Historical experience cautions strongly against prematurely easing," said Mr Powell.

Strikingly, many investors think the Fed will end up being more dovish. Bond pricing suggests that rates will peak at less than 5% and that the central bank will start cutting them before the end of 2023.

Ultimately, the decision will come down to the data. Prices of consumer goods have started falling as pandemic-era shortages melt away. Housing prices are also trending lower. The big lingering concern is whether a tight labour market will push incomes and, by extension, prices higher. Investors are betting that wage increases will slow as the economy weakens. The Fed, understandably, is not popping the champagne just yet. ■

Auctions

Going Dutch

CHICAGO

An experiment pokes fun at the art market

PENNY PINCH, a Chicago street artist, likes to have fun with art-world finances. His work—from murals to paintings to tote bags made in collaboration with the Chicago Cubs baseball team—uses scavenged or donated materials (hence the name). His latest experiment, hosted at A Very Serious Gallery, in the city's north-west, is in pricing.

On December 16th Mr Pinch is due to sell 15 paintings, one of which is pictured, in a Dutch auction. Each will start at a price of \$3,000, which will be cut by \$100 every hour until a buyer emerges. According to Mr Pinch and Allan Weinberger, the gallery's owner, it is the first-ever such auction of new art (a claim your correspondent could not disprove).

Dutch auctions are more commonly used to sell homogenous goods, such as cut flowers in 17th-century Holland or government bonds today. Their use for unique works is considerably rarer. Mr Pinch says the auction is "an opportunity for people who can't normally buy large pieces of work". It is also an opportunity to poke fun at the art world.

The opportunity may come at a cost. As Eric Budish of the University of Chicago notes, the trick with a Dutch auction is knowing where to set the starting price. For Treasuries, the range is established by looking at previous auctions. For Mr Pinch's art, there is no equivalent, meaning he risks setting the price too low and leaving money on the table.

Mr Pinch is unconcerned by this, as he has something else in mind. At a

regular auction, a potential buyer is influenced by the crowd. Clamour for an offering indicates a higher potential resale value and a greater status gain if the auction is won. These sorts of considerations are "icky", reckons Mr Pinch, which is why he likes Dutch auctions, where they are not possible. When somebody else bids, it is too late. Potential buyers must focus on how much they value the art, not how much others do.

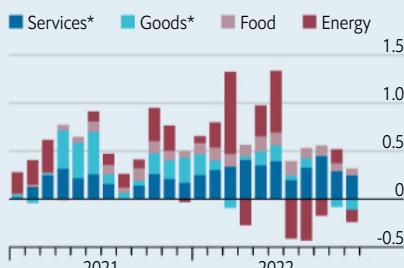
Yet there is an irony to the experiment. By launching the first Dutch auction for art, Messrs Pinch and Weinberger may generate enough hype to attract exactly the sort of buyers they wish to repel—those motivated more by status than a love of art.



Burning cash?

Lower numbers, higher hopes

United States, contributions to monthly inflation rate, percentage points



*Core prices, excludes energy and food

Source: Bureau of Labour Statistics

The energy war

No time to chill

Europe's politicians seem increasingly complacent about the winter ahead

“WE ARE safe for this winter. Russia's blackmail has failed.” Ursula von der Leyen, president of the European Commission, was in a confident mood on December 12th, speaking during the first cold spell of the season. It was a confidence born of a sure-footed start to winter. It may also turn out to have been premature.

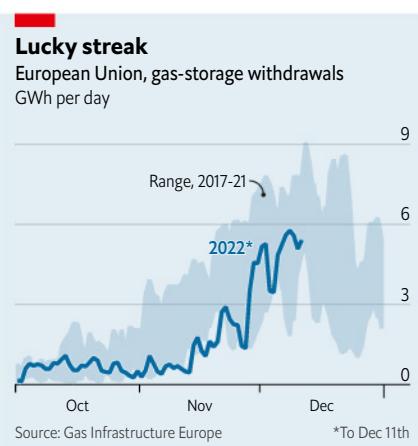
The continent enjoyed a warm autumn, with October and November much balmier than normal. But Arctic cold arrived at the beginning of December, as temperatures dropped below zero in Berlin, London and Paris, prompting fears that gas supplies would be hit and electricity networks would falter. In France, each degree centigrade drop in temperature requires an additional 2.4GW of generation capacity, the equivalent of an average nuclear plant.

So far, though, Europe has stood up to the test. Consumers have shown a willingness to cut back. According to Bruegel, a think-tank, German industry, small businesses and households reduced gas consumption by a quarter in November, compared with the three-year monthly average. Gas has been withdrawn from storage, but only at levels well within historic limits (see chart). Liquefied natural gas (LNG) has flowed into Europe's ports in record volumes. Gas futures prices for early 2023 climbed, as traders accounted for the weather, but the rise was not all that sharp.

Backup plans have gone into action across the continent. France has called on neighbours to supply lots of power. Britain's grid operator ordered two reserve coal plants to prepare to generate, though later decided they were not needed. One of Germany's four grid operators, TransnetBW, asked consumers through its phone app to help reduce the need for dirty fuels.

Yet the willingness to cut back seems to be fading. Germany's gas regulator estimates consumption was just 17% lower last week, after adjusting for temperature. If the trend continues, it could become a problem. “The security of gas supply is not in danger in December, when storages are full. The critical period is a cold spell at the end of March,” says Andreas Schroeder of ICIS, an energy consultancy. Half-empty storage tanks release gas much more slowly than full ones.

Despite getting through its first cold spell of the winter, Europe therefore remains at the mercy of the weather. The International Energy Agency reckons that the



mild autumn saved the continent around 10bn cubic metres (bcm) of gas. A rebound of hydropower, from last year's lows caused by droughts, could save another 8 bcm. But a colder winter would further deplete gas storage tanks, risking rationing towards the end of the season, especially if China demands more LNG.

Goldman Sachs, a bank, predicts gas prices will remain above €120 per megawatt-hour throughout next year. A group of countries led by France is now seeking to cap prices. This would be supremely counter-productive, boosting demand and risking long-term supplies. Europe has made it through winter's first cold spell. It would be absurd for the continent's politicians to get complacent at this early stage. ■

Climate change

Stormy skies

How to put a carbon price on a flight

FEW TOPICS annoy green activists as much as air travel. Planes account for a sliver of total carbon-dioxide emissions—roughly 2.5%—but unlike heating, other transport and electricity, journeys on them are often luxuries not essentials. Air travel has also largely escaped carbon pricing, which covers a quarter of all emissions.

Change is in the air, however. Since the start of last year, a UN-backed scheme has required airlines to offset emissions above a baseline by buying credits. On December 6th the EU decided to bring airlines deeper into its carbon-trading scheme. These are steps in the right direction, even if they are unlikely to bring about fast enough decarbonisation for Europe to hit its goal of a net-zero aviation industry by 2050.

The ideal carbon-pricing scheme would apply across the economy, allowing trade-

offs to be made between different activities. If society decided that flying was especially important, there would be fewer permits for steelmaking. The price of carbon would reflect both the ease of substituting a less polluting energy source and the value of the activity it fuels. The faulty logic behind excluding airlines from the EU's scheme was that there was not yet a viable alternative for jet fuel. It was thought a carbon price on flights would simply annoy flyers and push airlines elsewhere.

But there are ways of reducing the carbon intensity of a flight. More efficient aircraft help, as does smarter pricing to ensure every seat is used. Even without a carbon price, the carbon intensity of a passenger kilometre has fallen from around 1.4kg of carbon dioxide in 1960 to 0.1kg in 2018. Carbon prices can also change the behaviour of consumers, encouraging them to opt for a train, bus or boat where available. Handing out free permits to airlines amounted to an implicit subsidy for flying.

The EU's new plan will see airlines lose more of these permits each year until the industry's special carbon allowances are phased out entirely in 2026, a year sooner than had been intended. Britain and Switzerland are included, but flights to other countries outside the bloc will remain exempt. This is mostly the result of a spat in 2012 when China threatened to stop buying planes from Airbus, a European firm, and America threatened non-compliance if the EU required all flights to take part.

International airlines will still have to hew to the UN-backed scheme, which is known as the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) and applies to the whole industry. Under CORSIA an airline must offset emissions beyond a baseline by buying credits, with the split based on the airline's share of total industry emissions. For the pilot stage, which runs until the end of 2023, the baseline is industry emissions in 2019.

As airlines have not fully recovered from the covid-19 pandemic, there is currently no requirement to offset emissions. From 2024 the baseline will be lowered to 85% of emissions in 2019. Yet even this will not have much impact. Credits are cheap, costing about \$3 a tonne compared with around €90 (\$96) a tonne in the EU. And airlines may be able to avoid buying them at all by using a bit of sustainable aviation fuel, made from waste cooking oil, which is heavily subsidised in America.

So far nowhere has opted for a carbon-pricing scheme that operates across the whole economy. By incorporating airlines into its carbon-trading scheme Europe is at least heading in the right direction. But with the scheme's limitations, and with the rest of the world lagging behind, the journey to a net-zero aviation industry will be a slow one. ■

Free exchange | Modern Nixons

The new, insidious threats to central-bank independence



JUST KICK 'em up the rump a little." That was how President Richard Nixon advised Federal Reserve chairman Arthur Burns to persuade the rest of the Fed board to cut interest rates in 1971. Kicked or not, the central bankers complied. Cuts helped Nixon to re-election by boosting employment. They also contributed to double-digit inflation that would not be decisively tamed until Paul Volcker ran the Fed in the 1980s.

On December 14th the Federal Reserve raised interest rates by another 0.5 percentage points; the European Central Bank (ECB) and the Bank of England were expected to follow suit shortly after *The Economist's* weekly edition was published. Technocrats have spent the decades since Burns making Nixon-like meddling more difficult. An academic cottage industry is devoted to numerating and ranking central bankers' independence. In 2020 there were more than 150 central banks classed as independent by the Bank of England's count—some 90 more than in the 1970s. The ECB's autonomy is guaranteed by treaty. When President Donald Trump criticised Jerome Powell, the present Fed chair, for raising rates in 2018, the president appeared both backward and impotent. This year President Joe Biden has emphasised his support for the Fed. Some British politicians in the governing Conservative Party even argue that the Bank of England has not raised rates enough.

The notion that today's central bankers might be bullied into stopping the fight against inflation is therefore harder to sustain. Yet it would be a mistake to suggest that monetary policy is completely insulated from politics. For there are forces threatening central bankers' independence in new and insidious ways.

The first is that central banks are less hard-nosed and keener to play to the gallery than they were. In the Volcker era economists speculated that independent central bankers might work best if they were more hawkish than society about inflation. Over time they came to reject "inflation nutters" in favour of "flexible" inflation targeting which took employment into account, too. By 2020 central bankers looked jobs-nuts. The Fed said it would not raise rates at all until the labour market was tight, an approach which left it hopelessly adrift as inflation took off. Its top brass had been on a "Fed listens" tour at which the public, having not been seriously troubled by inflation for decades, told central bankers that

stimulating employment should be their priority. Advocates for making central bankers directly accountable forget that politicians' desire to distort monetary policy comes from listening to what voters want.

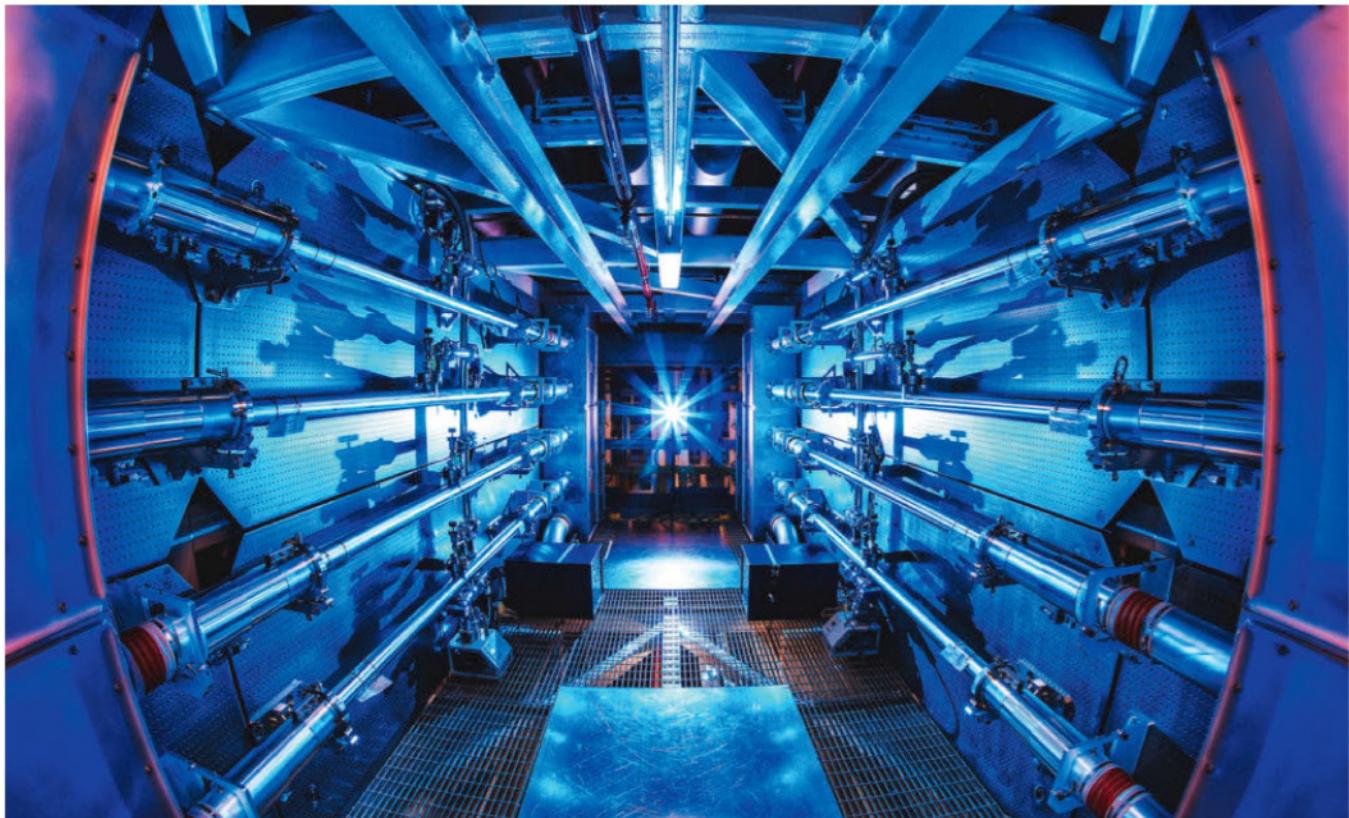
Central bankers need independence from the public as much as they do from their elected representatives. But they spend ever more time in press conferences and giving speeches. At the moment, Mr Powell and his peers use their public profile to speak hard truths about how long-term price stability is the foundation of prosperity. But their resolve is yet to be tested by a recession which could provoke a backlash like the one Volcker had to see off. Only after such a backlash will it be clear whether central bankers see their job as to lead or to listen.

The second threat stems from the new tool central bankers have deployed since the global financial crisis of 2007-09: quantitative easing, or the purchase of government bonds with newly created money. Over the past decade, central bankers have become an important force in bond markets as they have attempted to keep long-term interest rates low. They have also intermittently solved financial crises by becoming "market-makers of last resort", buying bonds to restore calm—a job that has become more important owing to the rise of financial intermediaries outside the traditional banking system. Central-bank balance-sheets have grown much faster during crises than they have shrunk during tightening episodes. At today's pace of quantitative tightening (QT), for example, it would take ten years for the Bank of England's balance-sheet to return to its size before the financial crisis.

As central bankers' footprints in markets grow in size, they find themselves making more decisions that are ultimately political in nature. The ECB's balance-sheet has become the conduit for a de facto mutualisation of some of Italy's debts. The central bank has not yet started QT, but it has unveiled another bond-market "tool" to backstop indebted countries. The Fed faced allegations that its support for corporate-debt markets during the covid-19 pandemic favoured bigger firms over smaller ones dependent on bank lending. A large proportion of the rise in Britain's debt-service costs this year has flowed via the Bank of England, which must pay interest on the reserves it has issued to conduct QE. Mission creep has put a target on central bankers' backs. Some would like central banks to do even more by deploying their balance-sheets in pursuit of a broad array of goals, including subsidising the fight against climate change.

Take it to the grave

The final threat stems from government spending. Economists' models say that the ability of central banks to control inflation depends on sound public finances, which Eric Leeper of the University of Virginia has called the profession's "dirty little secret". Should governments borrow without restraint, they undermine the credibility of monetary policy without so much as a phone call to the technocrats who set interest rates. All it takes to produce self-fulfilling expectations of inflation is a belief that the government will one day choose to inflate away some of its debts. Central bankers should thus look nervously at the increasing tendency of governments to borrow and spend, for example on vast energy subsidies, as in Europe. They should also fear the intense pressure on budgets that is forecast for the coming decades as ageing populations push up spending on health care and pensions. Politicians today are very different from Nixon. The independence of monetary policy from politics looks wobbly nonetheless. ■



A brouhaha about fusion

Cool it!

Despite excited reports, recent results from America's National Ignition Facility bring fusion power little closer than it was

ON DECEMBER 13TH America's energy secretary, Jennifer Granholm, announced that the country's National Ignition Facility (NIF) had lived up to the "i" in its name, by achieving ignition. The stuff ignited was some pellets of a frozen mixture of deuterium and tritium—isotopes of hydrogen that have, respectively, one and two neutrons in their nuclei in addition to the single proton that is hydrogen's nuclear characteristic.

That an American cabinet member should make time in her diary to grace the announcement of an arcane result in physics is odd. But so is the whole episode. For the result in question has been the centre of a media storm, starting on December 11th with an article in the *Financial Times*, based, apparently, on a leak from NIF, and followed by a hurricane of publicity when the actual moment came.

"US researchers have overcome a major barrier to achieving low-carbon nuclear fusion," gushed the BBC's website, leaving the reader wondering if there is also a high-

carbon variety of fusion. The *Wall Street Journal* went with, "Nuclear-fusion breakthrough accelerates quest to unlock limitless energy source." *Svenska Dagbladet*, one of Sweden's leading dailies, wrote, "We are one step closer to unlimited energy." *La Repubblica*, one of Italy's, pronounced that, "The dream of a clean, renewable and safe source [of energy] is approaching."

Well, we aren't. And it isn't. Or, if it is, that has little to do with recent events in Livermore, California, where NIF is located. The result Ms Granholm attached herself to is interesting. But a useful step towards electricity generation by fusion it is not.

NIF is part of Lawrence Livermore National Laboratory, the main purpose of which is to investigate the physics of hydrogen bombs. These work by compress-

ing deuterium and tritium atoms together so tightly that their nuclei fuse to create a helium nucleus, a neutron and some energy. Do this to enough pairs of atoms and you get a lot of energy—and a big bang.

Some years ago, therefore, in the wake of America's abandonment in the 1990s of the testing of nuclear weapons, a group of bright sparks at Livermore thought useful experiments might still be carried out by developing a technology called inertial confinement, to do something similar on a far smaller scale. Thus was NIF born.

Ignition sequence start?

In a bomb, the compression is done by a fission explosion involving plutonium. In one of NIF's pellets it is done by the convergence on the pellet of 192 beams from a powerful laser. In both cases the aim is to overcome the mutual electrical repulsion of the positively charged nuclei of the atoms, and push those nuclei close enough to one another for a different fundamental force, the strong nuclear force (which operates only at short ranges) to take over.

The strong force is attractive, not repulsive. It pulls the protons and neutrons of the parent nuclei together into a heavier, daughter nucleus. That daughter requires less energy to bind it than do the parents, so the surplus is released—80% of it as kinetic energy of the departing neutron and 20% as kinetic energy of the helium.

The basis of the razzamatazz is that the ➤

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76 The other COP

77 Menstrual-product safety

► NIF's researchers have released more energy from an imploding pellet than was inserted by the laser beams. They have, in other words, ignited a nuclear spark which burned for a while through the pellet in a self-sustaining way—something never before achieved. And that might be scaled up to release a far bigger fraction of the potential energy in the pellet's contents.

Neat, in principle. And no doubt important for understanding hydrogen bombs. But this approach can be a power source only if the energy released exceeds not merely that incident on the pellet, but rather that employed to generate the beams. Unfortunately, the huge inefficiencies involved in creating those beams mean only a tiny fraction of the generative energy behind them arrives at the pellet. Not really the basis for a workable reactor. And that is before you factor in all the other engineering difficulties involved in transducing the kinetic energy of the fusion products into electricity.

Too cheap to meter?

Fusion, though, presses odd buttons in people's psyches. The supposedly limitless supply of fuel (for deuterium occurs naturally in a small fraction of water molecules) is touted as a benefit—conveniently ignoring the fact that tritium, which is radioactive and has a half-life of 12 years, has to be synthesised. And the observation that it releases no CO₂ is true also of nuclear fission, solar energy and wind power, all of which are actual, developed technologies.

Yet, in this case, things are even odder. After decades when, to quote an old joke, "fusion power is 30 years away—and always will be", there are now real ideas and real firms with real money pursuing it in the private sector. Few of these projects involve the fiddly technology of inertial confinement by laser. Even lasers more modern than that used by NIF (which opened in 2009) have not overcome the inefficiencies inherent in the process of "pumping" the device to create the beam.

Instead, many commercial projects are based on tokamaks—an established approach that goes back to the 1950s. This heats the deuterium-tritium mixture into a plasma rather than freezing it into a pellet, and does the compressing magnetically. Breakthroughs in magnet technology, in particular, have enabled this renaissance.

The private sector being what it is, wilder ideas still are out there, too—from different fuel cycles involving different nuclei to a form of inertial confinement that works by firing a projectile into a fuel-rich target, rather than aiming laser beams at it. In light of all this, it seems inconceivable that the future of commercial fusion power, if it has one, lies with inertial-confinement by laser. Remember that, next time the headline writers get carried away. ■

Preserving ecosystems

A fair COP?

DELEGATES TO THE LATEST UN BIODIVERSITY MEETING ARE SLUGGING IT OUT IN MONTREAL

ANTÓNIO GUTERRES, secretary-general of the UN, seems to spend most of his time delivering dire warnings. Recently, he has, Cassandra-like, presaged "nuclear annihilation", a "raging food catastrophe" and "climate hell". His speech on December 6th at the opening of the 15th conference of the parties to the UN convention on biological diversity (COP15), in Montreal, was characteristically catastrophic. In "treating nature like a toilet", he said, "we are committing suicide by proxy".

Healthy ecosystems purify water and help to regulate the climate by absorbing roughly half of the carbon-dioxide emissions which people generate. They also provide food (particularly fish and other seafood) and materials (particularly timber). Yet habitat-destroying changes of land use, the exploitation of resources, global warming and pollution mean that three-quarters of the land and two-thirds of the oceans are now "severely altered", according to the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services, which assesses such matters for the UN.

Negotiators at COP15 are trying to draw up an agreement (akin to that hammered out in Paris, in 2015, at a meeting of biodiversity cop's big brother, the cop on climate change) to stop this getting worse. But that is hard—and not just for political reasons. Humanity's influence on the climate can be boiled down to one big cause, the amount of greenhouse gases (particu-

larly carbon dioxide) being released into the atmosphere, and one main effect, rising temperatures. By contrast, the intricacy of ecosystems composed of vast networks of organisms means they are difficult to comprehend, let alone quantify.

The simplicity of cause and effect made agreement on climate change at Paris easier for both the goal (stop temperatures rising more than 1.5–2°C above pre-industrial levels) and the way to get there (make greenhouse-gas emissions peak as soon as possible). No similarly straightforward deals for preserving habitats are possible. A previous biodiversity cop, held in Aichi, Japan, in 2010, yielded targets that were qualitative at best and woolly at worst—invoking nebulous promises like, "implementing an effective, participatory and updated national biodiversity strategy and action plan". And there were far too many of them: 20 main goals (none of which has been achieved) and 60 subsidiary ones.

The proposal most discussed and supported at COP15 is a hypothetical pact to protect 30% of the planet's land and seas by 2030. This aspiration, dubbed "30x30", has the virtue of being succinct and symbolic—precisely the qualities that helped the Paris temperature target gain traction.

What actually constitutes adequate protection for ecosystems, however, differs between habitats, depending on which specific threat they are facing. Indeed, it sometimes varies within them. And many interests will have to be squared. Of particular concern is that giving priority to conservation will curtail development in places with more intact ecosystems, which tend to be poorer, while the rich world sails merrily on, having already felled its forests, ploughed its grasslands and emptied its fisheries.

Money will certainly help. On December 14th poor-country delegates walked out of one set of negotiations, saying their wealthier counterparts were refusing to stump up the cash they needed to implement their biodiversity plans. A group led by Brazil and several African countries wants a new fund worth \$100bn a year until 2030. Others seek reform of an existing funding mechanism, the Global Environment Facility, to ease access to it. Rich countries, meanwhile, champion redirection of subsidies for activities that damage nature (fossil-fuel use and some types of agriculture, for example), and boosting



Bring me your funding mechanisms

► private investment through biodiversity credits and debt-for-nature swaps.

Another good outcome would be to spread the idea that ecosystems are important. Felling a rainforest and planting oil palms sounds sensible. You get a profit from the timber and recurring income from the palm oil. And for absorbing CO₂ and regulating water flow, surely a plantation of trees is as good as a forest?

Well, it isn't. The complexity of a forest can absorb far more CO₂ than the simplicity of a plantation. And if the forest is replaced by farms or bare land, things can be worse. Recent floods in Pakistan were laid by some at the door of climate change. They might equally have been laid at the door of the deforestation of that country's hills, which stripped them of vegetation that previously regulated the flow of water.

Change minds and you might change behaviour. That is the lesson of Paris. If the Montreal talking shop can do something similar for biodiversity, then the jet-fuel burned taking the delegates there, and the consequent CO₂ emissions, may actually have been worth it. ■

Menstrual products

Period pains

Why more research into the safety of menstrual products is needed

THE FEMALE reproductive system has an entire branch of medicine, gynaecology, devoted to it. Yet all that effort has more or less neglected a quotidian matter that that really ought to be investigated properly. Or rather, not a quotidian matter, but a menstrual one. At any given time, about 300m of the world's women are menstruating. Of these three-quarters will be using some sort of menstrual product—tampons, pads, pantyliners, cups, period underwear, discs and so on—to regulate their flow. An average woman who employs such devices will use around 15,000 of them during her life. Someone with abnormally heavy periods might need thousands more. And many women wear several products simultaneously, for extra protection.

Moreover, the skin of the vulva, the vagina's external protection—which comes into direct contact with pads and pantyliners—is one of the body surface's most sensitive parts. It is more permeable than the rest of the epidermis, and becomes still more absorbent when irritated. And the vaginal canal, where tampons sit, is lined by mucous membranes supplied by blood vessels that absorb chemicals into the bloodstream without metabolising them.

These would, it might be thought, be reasons for scientific investigation of the composition of menstrual products, and regimes of regulation capable of responding to the findings of such investigation. That is what happens with drugs and food-stuffs, two other classes of product routinely inserted into the body. But scientific investigations are patchy, and regulation is variable between jurisdictions. And, though the sheer numbers involved mean that a serious health hazard would probably have come to light by now, it is conversely true that even a small risk would affect a lot of people. In addition, both what science there is and women's own experiences, now easily shareable over social media, suggest all may not be well.

Product moment

There have certainly been problems in the past. In 1980 hyper-absorbent tampons were linked in America to 55 cases, some fatal, of toxic-shock syndrome—a sudden fever-like condition caused by toxins released by bacteria as they multiply. That led to a tightening up of regulations in America, where tampons are now treated as medical devices (though, surprisingly, firms that make them are neither required to do so in a sterile environment nor to test samples from each batch). Other jurisdictions take a more relaxed view. In Japan, menstrual products are described as "quasi-drugs". In the European Union they are uncategorised general products.

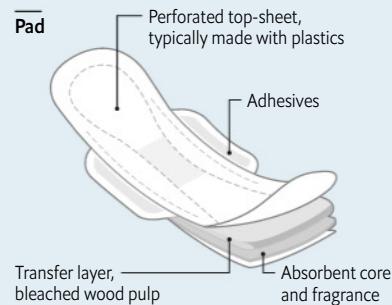
Official reports see menstrual products as safe. A study of 666 of them by the Ministry of Food and Drug Safety of South Korea, published in March 2017, picked up on potentially harmful compounds, but at levels within established safety margins. A report released in 2018 by France's agency for food, environmental and occupational health and safety also ruled them safe. And one by the Swedish Chemicals Agency, published in the same year, concluded that there was "no reason for concern".

In some parts of the world, though, women's experience suggests all is not entirely well. In the same month that the South Korean government published its report, a campaign group called the Korean Women's Environmental Network released testimony from over 3,000 women who had experienced symptoms including shorter periods, worsened cramps and considerably less bleeding while using certain pads. It also published the results of a scientific study which claimed that the country's ten most popular menstrual pads collectively contained 200 chemicals of concern, including 22 known carcinogens.

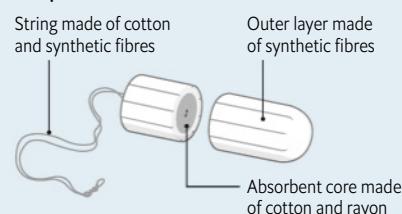
In France, too, women have had worries. Among the safety agency's findings were that 81% of respondents felt at least one kind of feminine-hygiene product (mainly tampons) involved a health risk.

Periodic table

The composition of menstrual products



Tampon



Source: *The Economist*

In Kenya, meanwhile, a Twitter handle, #MyAlwaysExperience, became a rallying point, in 2019, for thousands of Kenyans who used it to share how their Always pads—a product so popular in Kenya that "Always" has become a generic word for pads—were caused itching, burning and rashes. Many Kenyans had put their incessant itching down to the hot climate and ignored it, but noted significant improvements after switching products.

In America, too, according to the country's Food and Drug Administration, hundreds of women have complained about menstrual products over the past decade. With pads and pantyliners, they have reported rashes, cellulitis and chemical burns. Aside from toxic-shock syndrome, which is still happening, adverse effects from tampons have included infections caused by disintegrating tampons, sepsis, worsened cramps and heavier periods.

The two largest makers of period products say they give priority to safety. Procter & Gamble, makers of "Always" pads and also owners of Tampax, a popular brand of tampon, says it conducts more than 1,000 quality tests a year on its raw materials and that independent laboratories likewise run over 20,000 tests on its pads, tampons and their components. Kimberly-Clark, which makes Kotex pads, says: "Our feminine care products undergo thorough internal and independent safety evaluations by product safety and medical professionals that support our confidence in the quality and safety of our products." Both firms deny adding chemicals that have been linked to problems.

Two matters of particular concern to ►

► those who worry about menstrual products are skin-sensitising and hormonal effects. Surprisingly, both the French and the Swedish studies ignored these. Skin sensitisation might be caused by fragrances and adhesives. And MDBGN, an antimicrobial preservative considered a dermatitis-causing allergen by the EU, and banned by them from many cosmetics, was detected on the sticky tabs of a pad's surface in a study carried out in Australia in 2007. (Both P&G and Kimberly-Clark deny adding MDBGN to any of their products.)

Hormonal effects might be caused by so-called endocrine disrupters. These mimic oestrogen, a hormone essential to a host of functions including regulating the menstrual cycle. They also pose a theoretical risk to developing embryos. Though periods end when pregnancy starts, some women still wear light pads and liners for bleeding and other discharge when pregnant. Anna Pollack, a professor of public health at George Mason University, in Virginia, observes that endocrine disrupters, "have consistently been linked with changes in pregnancy outcomes, whether that's lower birth weight or preterm birth".

Bisphenols (used to make certain sorts of plastics), parabens (employed as antimicrobial preservatives) and phthalates (often added to plastics to soften them) are all groups of chemicals that include known endocrine disrupters. In 2020 Kurunthachalam Kannan, an environmental chemist at the New York University School of Medicine, tested 43 pads, tampons and pantyliners from a local shop and found three bisphenols, five parabens and five phthalates. There are hardly any studies on the risks of vaginal exposure to these molecules, but they were present at levels Dr Kannan considers "really high for a consumer product". (He did not disclose which brands he tested.) P&G and Kimberly-Clark say that, though they do not intentionally add chemicals such as phthalates to men-

strual products, these may be found in trace amounts.

Decades of use as plastic-softeners do now mean that phthalates are widespread in soil and water. It would thus be possible for them to appear unintentionally in menstrual products. And improved scientific instruments and tests can nowadays find ever smaller quantities of substances, which could explain the detection of some of these chemicals in Dr Kannan's tests. But even trace amounts might affect someone's hormonal balance.

Discovering the truth here is hard—not least because the relevant tests are difficult to perform. Toxicity tests, which can be carried out only on animals, generally look for extreme responses, such as cancers or death. Checking for symptoms like itchiness, disrupted cycles or worsened cramps would require specific human tests.

On top of all that, existing studies of chemical safety often rely on administration by mouth. These are a poor basis for estimating the impact of vaginal exposure, since substances ingested orally have first to pass through the destructive chemical furnace that is the gastrointestinal system before they are absorbed into the body. Similarly, drawing conclusions from skin exposure in areas like the forearm may be a flawed approach, because this skin is far less permeable than vulvar skin.

As Kabrena Rodda, a forensic toxicologist at the Pacific Northwest National Laboratory, in Washington state, observes, "We just don't know very much about either the short or long term effects of chemicals from vaginal exposures." But without official standards on what is a safe dose of chemicals to be exposed to routinely, vaginally, firms are left having to choose their own testing methods and thresholds.

One possible reason for problems may be that small, rogue manufacturers are producing substandard goods. Some complaints coming from America concern pro-

ducts from less-well-known companies, which could skip independent testing and exploit gaps in regulations.

Another could be inconsistent manufacturing practices between countries, brands and even batches. Some Kenyan women tweeting about their experiences noted that irritating symptoms went away when they used pads imported from America or Britain. P&G initially denied any differences between their products. It now says that "Our product composition may slightly vary from region to region, due to different material supply chains, different production sites, different consumer preferences and local legislation." Tweeters on #MyAlwaysExperience also noted that locally produced "cotton-feel" pads seemed to have a rougher perforated top-sheet than imported versions.

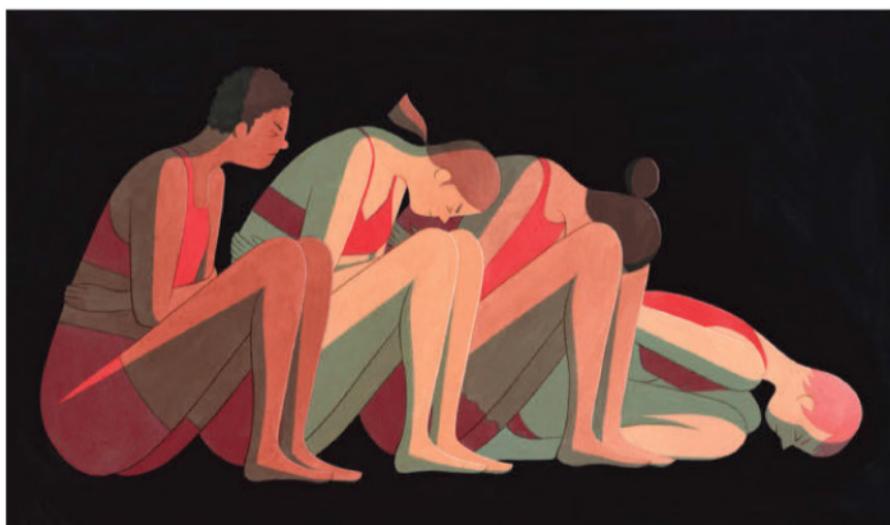
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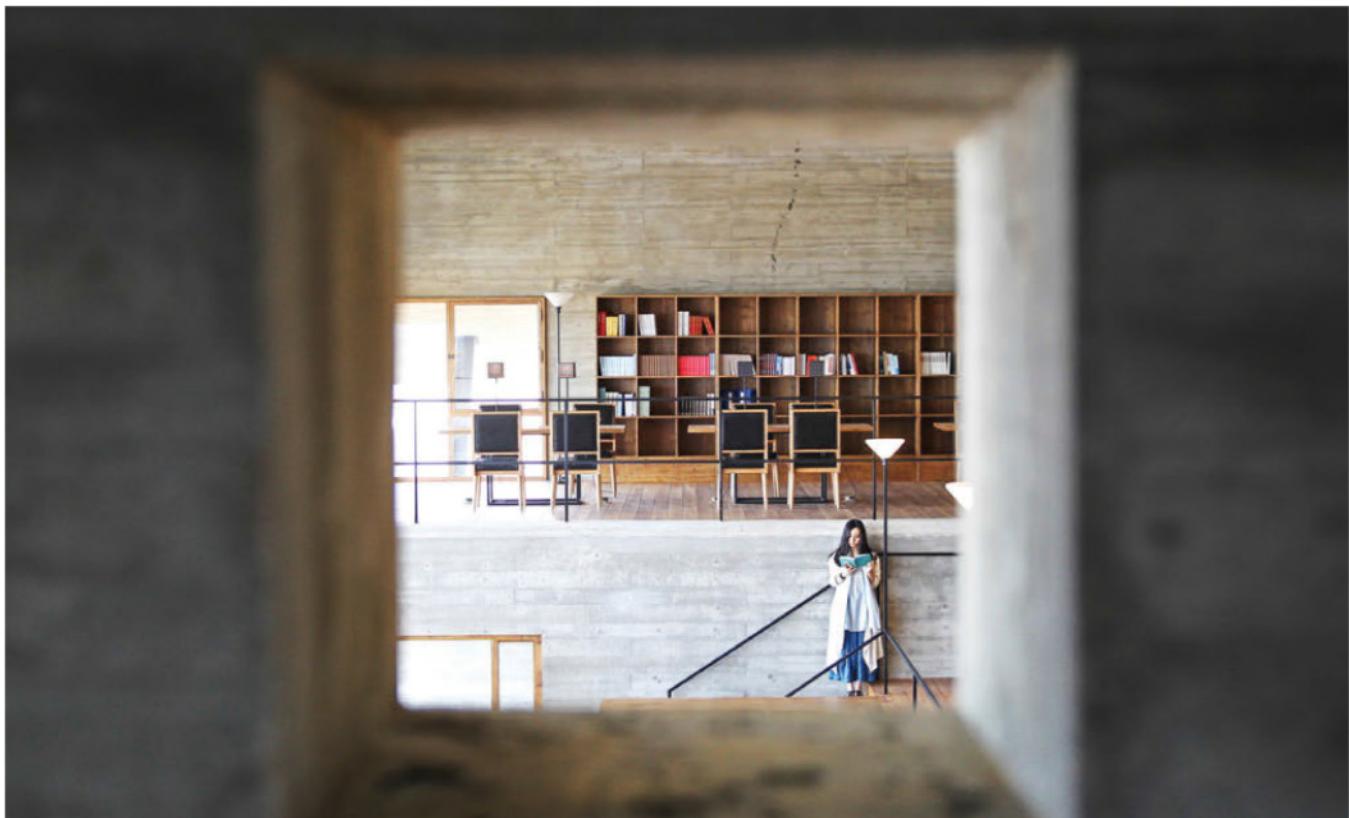
The Swedish Institute for Standards, a think-tank, has proposed creating a worldwide standard for menstrual products. This would include guidance on limits for various chemicals in them, on acceptable testing methods, and on materials. This idea passed an initial vote at the International Organisation for Standardisation, a confederation of national standards bodies also known as the iso, this year. The iso hopes that, by taking cues from existing standards on products such as condoms and sex toys, it can establish guidelines which could reduce inconsistencies between brands, products and batches.

Some smaller firms are popularising replacement products which they claim are safer, though none is perfect. Period underwear, made out of moisture-wicking material such as polyester, is an environmentally conscious alternative to pads since, as long as clean running water is available, it can be washed and reused. Menstrual cups are small, flexible receptacles, also usually reusable, that supplant tampons by collecting a woman's flow rather than absorbing it.

Other companies are trying to make existing products safer. For example Daye, a British firm, is voluntarily certified under ISO 13485, a stringent standard for medical-device makers. It hopes thus to set a higher bar for the entire industry.

The onus now, though, is really on scientists, regulators and public-health agencies to fill the gaps in knowledge about period products. Safe thresholds for chemicals are useful only in the contexts in which they have been developed, so may be unsuitable, given the vagina's unique permeability. Drawing up specific tests for vaginal exposure would be a labyrinthine task, but without it regulators are unlikely to find satisfactory answers. In absence of these data, women have little choice but to hope sanitary products are safe. ■





Reading habits in China

Beautiful world, there are you

BEIJING

The popularity of Sally Rooney's novels in China reflects important social trends

MANY CHINESE bookshops stock tomes by Marxist theorists who decry capitalism's flaws. Big-city booksellers sell fiction by and for young women, which dramatises quandaries of romance and careers. These days quite a few shops reserve shelf space for a writer who straddles the two genres: Sally Rooney, an Irish author whose celebrated novels combine feminist tales of urban life with earnest thoughts on capitalist exploitation.

In the five years since the publication in English of "Conversations with Friends", Ms Rooney's first book, she has become an international sensation. Her three novels to date have been translated into scores of languages; two have been adapted for television. In China she has sold 150,000 books in translation, says Peng Lun, her publisher: a high (and rising) number for a relatively new overseas author. The popularity of these narratives of love and ideas, written on the other side of the world, reflects important trends in Chinese society.

Ms Rooney's appeal rests in part on the

same qualities that have powered her success in the West. At a well-attended discussion at a bookshop in Shanghai, Hayami, a blogger and podcaster in her 20s, pointed to the text messages embedded in "Conversations with Friends", which mimic the digital exchanges that dominate communication between millennials. Shirley Tian, a 33-year-old fan in Shanghai, says the characters "represent me at a lot of levels...Their puzzles over the meaning of work and confusion about dating are basically my daily questions."

But beyond the millennial realities it captures—widely recognised by readers of that generation—Ms Rooney's work resonates with young Chinese in distinctive

ways. One is her portrayal of migration to the big city. For instance, "Normal People", Ms Rooney's best-known book in China and elsewhere, charts the on-off romance of a couple from a small town who move to Dublin for university. Similarly, many Chinese city-dwellers grew up in the countryside and moved to a metropolis after passing the *gaokao*, a gruelling university entrance exam. Such migrants, who self-deprecatingly refer to themselves as "small-town test-takers", make up a large proportion of the educated workforce. Many are avid readers.

"As someone who is from a small town, I can relate to the experience of moving to study in a big city," says Qian Yang, a reader in her 20s in the north-eastern Liaoning province. Like Ms Rooney's protagonists, she felt "the excitement of a new place, curiosity about people from different classes and awkwardness in social settings". Na Zhong, a writer based in New York who has translated all Ms Rooney's novels, says she knew immediately that Chinese readers would connect with the small-town travails they depict. (Ms Rooney herself grew up in Castlebar, in western Ireland.)

The novels' political concerns—power, class, money and gender—resound deeply, but differently, in China. The authoritarian climate inhibits discussion of such issues in social media or even in person. "The perspectives and views I have on social topics are often not shared by my friends," ➤

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▶ says Haiyan Miao, another 20-something fan from Hangzhou. "I find it futile to start that kind of discussion." She was introduced to Ms Rooney's fiction on Xiaohongshu (Little Red Book), a lifestyle and social-networking app, and was soon hooked. Ms Zhong reckons the characters' eloquent debates leave Chinese readers feeling both jealous and inspired.

For instance, in "Beautiful World, Where Are You", Ms Rooney's most recent novel, a character visits a grocery shop and feels repulsed by the consumption and exploitation it seems to imply, dwelling on the labour that went into the products and their environmental consequences. Hayami, the blogger, says she had a similar epiphany in regard to Shanghai's late-night shops and restaurants. This "super-convenient lifestyle", she realised, was made possible by "a mass army of service and manufacturing workers".

For some Chinese readers, however, the feminism of the novels is too wishy-washy. On Douban, a book-review website, some complain about the ending of "Beautiful World", in which the female characters contentedly pair up with boyfriends. Why, some wonder, could they not make their own way in the world without men?

The economic background of these stories has something in common with the situation in China too. Following decades of rapid economic growth, lots of Chinese millennials have been able to move up the social ladder. More recently, though, the government's stringent zero-covid policy, sluggish growth and authoritarian crackdowns have curtailed some opportunities and led to a bump in unemployment. Likewise, Ms Rooney's characters inhabit an Ireland that is recovering from the financial bust of 2008.

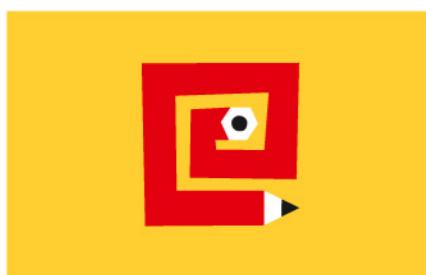
The grim state of publishing in China has contributed to her status. As censorship tightens, resources are flowing to publications linked to the Communist Party. Bestseller lists mostly comprise classics and science fiction, both deemed politically acceptable. Stories that deal frankly with contemporary issues are scarce. Ms Tian, Ms Yang and Ms Miao all struggle to name good recent novels by Chinese authors.

Given the trajectory of geopolitics, Ms Rooney's nationality may also help—in particular, the fact that she is not American. Between 2017 and 2020, amid an escalating trade war between Washington and Beijing, the number of American books acquired by Chinese publishers fell by 42%. Relations with Ireland are much more convivial.

In the past few years, the pandemic all but closed China's borders. Millions of young Chinese have been cooped up by lockdowns. The imagination has been their only escape route. Ms Rooney's Ireland is a destination of choice. ■

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Turkey and the Ottomans

Twilight of empire

The Last Days of the Ottoman empire:

1918-1922. By Ryan Gingeras. Allen Lane; 368 pages; \$47.95 and £30

AS IT TURNED out, more than six centuries of Ottoman rule ended with a whimper rather than a bang, though there had been a racket in the preceding years. The old regime was abolished on November 1st 1922 by Turkey's Grand National Assembly, representing the nationalist forces that had triumphed in the war with Greece—reversing the humiliations that followed the first world war. The last sultan was soon spirited away on a British warship; he lived on in Italian penury.

Ryan Gingeras, a prolific American chronicler of Ottoman and Turkish history, has marked the centenary of these events with a stimulating book that traces, in rich but digestible detail, the build-up to that furtive exit by Mehmed VI, who was also caliph, or spiritual leader, of all Muslims. Mr Gingeras sets out the broad context: the rise of Europe's colonising democracies—largely liberal at home but prone to heavy-handed imperialism abroad—at the expense of traditional theocracies, organised around fealty to a sovereign whose power was more than symbolic.

This culminated in a global conflict that doomed the tsars, the Habsburgs—and the sultans. The author generally admires the way great geopolitical entities adapt to new circumstances. His focus is on Turkey, but he describes other shape-shifting regimes, such as the Soviet leaders who assumed the foreign policy of imperial Russia, even as they celebrated its overthrow.

As adaptations go, modern Turkey's was long seen as successful, albeit with terrible costs for Anatolia's persecuted Christians. Out of the core of a ramshackle empire, the republic's founders fashioned a more or less modern statehood, with a secular constitution, universal entitlements and obligations (at least in theory) and intermittent multi-party democracy.

Another transformation was in external policy—from a militarised, expansionist Eurasian realm into a compact state that enforced internal cohesion but mostly eschewed foreign adventures. At least, until the past decade or so, in which President Recep Tayyip Erdogan has turned Ottoman nostalgia into a style of governance and a stimulus to military braggadocio.

Informing this book is the idea that the Ottoman empire's downfall was not pre-destined by backwardness, or even by defeat in a global war. Nor, it suggests, did change inevitably follow the principal catalyst: Greece's occupation (with inter-



The sultan's last sigh

▶ national support) of the great multinational port of Izmir, followed by the advance into Anatolia of a Greek expeditionary force. The republic's founder, Mustafa Kemal, later known as Ataturk, did draw vast authority from routing that force; but that did not automatically exorcise the Ottoman order, whose supporters still resisted change, as the book recalls.

Arguments about the inevitability of historical developments, or their precise causes, often become circular. History happened because it happened. What really matters is that the empire did fall.

Or did it? By way of continuity, some historians note that the empire was itself reforming and modernising, with contested elections and enhanced rights for non-Muslims. Others see a contrary sort of overlap in the non-liberal aspects of modern Turkey, including the power of the army and state control over religious affairs.

For his part, Mr Erdogan has cultivated imperial sentiment in big and small ways (a television series set in medieval times depicts early Ottomans fighting heroically). For Mr Gingeras, this is more than mood music. He is, after all, a professor of

national security at a postgraduate school of the American navy; he has said that a new war between Turkey and Greece is not merely possible, but probable, in view of threats by Mr Erdogan to "come one night" and challenge Greece's islands.

Mr Erdogan may ultimately be swayed by a contest between two competing influences: the restraining power of NATO and the desire of Russia to sow discord among its rivals. In forecasting the outcome, the past—even when so well-chronicled—provides food for thought but no clear answers. History has yet to end. ■

Johnson Halfway home

The word of the year is neither clever nor lovely. But it is hugely consequential

THE STORY of a year is sometimes easy to identify: the financial crisis of 2008, the Brexit-Trump populist wave of 2016 or the pandemic of 2020. The most wrenching event of 2022 has been the war in Ukraine, yet those earlier stories have lingered in the headlines. For language-watchers, all that meant much new vocabulary to consider.

Russia's invasion of Ukraine obliged newsreaders to practise place-names from Kharkiv to Zaporizhia. It also introduced weapons previously known only to experts: MANPADS, NASAMS, HIMARS and the like. (Soldiers have long had a flair for acronyms, not just the official kind but in contributions like *fubar* and *snafu*.) A debate also developed about whether it is culturally or militarily appropriate to refer to *kamikaze* or *suicide drones*, drones being by definition pilotless. *Loitering munitions* lacks a certain snap.

The economic problems to which the war contributed brought new words too. The catchiest in that subcategory is *shrinkflation*, whereby companies hide price increases by downsizing products while keeping price tags unchanged. It is a perfect portmanteau (a word built from parts of others). It not only points to an important thing, but its component parts are transparent so that it requires little explanation. No wonder Shaquille O'Neal, a retired American basketball star, used it in a pizza advertisement—a measure of success, perhaps.

Business, economics and finance are perennial sources of new jargon, some bits more enduring than others. The slowdown of China's economy led to increased talk of *decoupling* (of Western businesses from China's). International frictions led to a boom in *friendshoring*: a kind of reverse offshoring in which



supply chains are redirected to stable, ideally allied countries, rather than those invading their neighbours or pursuing self-harming covid policies.

Focusing on China, *zero covid* might be the obvious word of this year. China's lockdowns and crackdowns provoked rare public protests in big cities, and forced an unusual and public retreat from some elements of the policy late in the year. In Chinese the authorities called their policy *dongtai qingling*, meaning "dynamic clearing to zero"; that sounds rather more heroic than locking millions of people into their homes.

Climate change also contributed vocabulary in 2022, a year of extreme weather and *eco-anxiety*. A torrid summer saw governments set up public *cooling centres*. Come the winter, soaring fuel prices introduced their cold-weather equivalents, *warm banks*. At the COP27 climate-change summit in Sharm el-Sheikh in Egypt, *loss and damage* took centre stage. Rich countries, whose industrialisation has largely caused climate change, promised to set up a fund to redress the harms already done,

or certain to be done, in poorer ones. *Loss and damage* becomes a new pillar in climate politics, alongside limiting further change (*mitigation*) and making countries more resilient (*adaptation*).

Facebook renamed itself Meta in 2021 and spent vast sums in 2022 trying to activate the *metaverse*, an online world in which people can interact via avatars and virtual-reality goggles. Instead profits drooped as the company struggled even to get its employees to inhabit its metaverse. The word was a finalist in Oxford Dictionaries' Word of the Year contest, but was not selected. Perhaps another year. This is still a word (and a world) looking for users.

Instead, Oxford's choice this year—based on a public vote—was *goblin mode*, a state in which people indulge their laziest or most selfish habits. After years of covid, recession and inflation, people are tired and frazzled and finding it harder to keep up appearances. But another product of the covid era is Johnson's word of the year.

After the lockdowns of 2020, followed, in 2021, by a slow return to the office, 2022 was the year that *hybrid work* settled in. Working at home some of the time has advantages (decongesting cities and fewer painful commutes), and disadvantages (fears of lower productivity combined with a sense of never being off duty). In the spring Twitter announced a policy of unlimited working from home for those who wanted it. When Elon Musk bought the company he promptly decreed the opposite. But most firms have not gone to either extreme, instead trying to find the best of both worlds.

As a coinage, *hybrid work* is no beauty. But it will reshape cities, careers, family life and free time. That is ample qualification for a word of the year.



Alice Neel's vision

The naked truth

PARIS

Four decades after her death, Alice Neel's art is getting the attention it deserves

WHEN ALICE NEEL painted Andy Warhol in 1970, he chose to sit topless with his eyes clamped shut. Then 70 years old, Neel was good at talking people out of their clothes; she saw disrobing them as a battle of wills. Warhol loathed nudity and managed to keep his trousers on. But he could not hide the scars from an assassination attempt that were carved into his droopy torso, nor the surgical corset that held his severed abdominal muscles together. Neel painted the superstar of Pop Art as she thought he saw himself: broken and alone, but composed.

Posing for her was akin to evisceration. Yet in the mid-20th century plenty of New York's cultural luminaries were eager to find out what she would see in them. Neel joked that if she hadn't been an artist, she would have become a psychiatrist: the inner worlds of her subjects interested her as much as their appearances did. "She turned a person inside out," said Joseph Solman, a fellow painter who was too afraid to sit for her. Occasionally people commissioned her and, when they saw the finished portraits, declined to take them home. In 1930 she painted Ethel Ashton, an art-school friend, as a lumpy nude with desperate eyes. On encountering the picture at an alumni exhibition decades later, Ashton fled in fury.

Despite her appeal to the cognoscenti in New York, in her lifetime Neel never won international renown or commanded top-drawer prices for her work. In old age, she refused to get offstage when giving seminars about her craft. "Don't you dare turn the lights on," she reportedly once snapped, then talked on. Now, almost 40 years after her death in 1984, she is drawing the attention she always longed for.

In 2021 Neel was the subject of a retrospective at the Metropolitan Museum of Art, becoming the first female artist showcased in its prestigious Tisch Galleries. The exhibition, "People Come First", went on to the Guggenheim in Bilbao and the de Young Museum in San Francisco. This October a separate show of her paintings opened at the Centre Pompidou in Paris; it will head to the Barbican in London in February. Some of her portraits of men are now on view at the David Zwirner gallery in Hong Kong. The Victoria Miro gallery recently presented her work in London too.

Neel's own life was hard. Her parents found her vocation baffling in suburban

Philadelphia. As a young woman in New York during the Depression, she endured poverty and torturous romantic entanglements. "All my men were freaks," she once said; a boyfriend sliced up and burned dozens of her paintings in a jealous rage. She lost one baby to diphtheria, another was strangled to death by the umbilical cord. A daughter was taken abroad by her father.

In 1930 Neel was hospitalised after suffering a mental breakdown. On her release she tried to kill herself and was institutionalised again. She feared her ideas would remain "grey and yellow shadows" inside her skull and would never be transferred to canvas.

I feel therefore I see

Eventually she found a kind of peace. The New Deal cultural programmes of the 1930s and 1940s, under which the federal government paid artists a stipend, helped sustain her. So did a well-off supporter who hoped she would marry him. Over 60 years, from her homes in Greenwich Village, Spanish Harlem and then the Upper West Side, she painted relatives, neighbours, children, parents, lovers, enemies, artists and activists. She painted the poor of New York as well as the wealthy. The FBI kept a file on



Warhol uncovered

her for more than a decade: the time she spent in Cuba with her first husband, her portraits of American communist leaders—and her sympathy with their cause—had made her a suspicious figure.

Later she focused on pregnant nudes. These remarkable works, such as "Margaret Evans Pregnant" (1978), which portrays a woman heavily pregnant with twins, vehemently reject the "male gaze", whereby women are cast as passive, idealised objects. The pregnant body's plasticity fascinated Neel; with bold brushstrokes she captured a "basic fact of life", as she put it, which had been neglected "out of false modesty" or because artists were "being sissies". Beyond Dorothea Tanning and Frida Kahlo, unflinching depictions of pregnancy and motherhood had been rare, even taboo. In 1932 the Catholic church complained about Neel's "Degenerate Madonna"—a ghoulish mother cradling a cone-headed child—and it was removed from a show in Washington Square.

Neel hated to hear her work labelled as portraiture, which to her suggested ossification. "She was interested in the living", and traditional portraits "feel like memorials to the dead", observes Jeremy Lewison, a former director of collections at the Tate in London who advised Neel's estate from 2003 to 2020. Abstraction dominated painting during her career, and her unwavering commitment to figuration—representing what she saw, rather than shapes she had imagined—made her an unfashionable outsider. Some critics dismissed her work as caricature, alleging that it could be "traced directly back to the pages of *Mad Magazine*". She was said to compromise "pictorial structure" in the service of her "most immediate feelings".

But feelings are the heart of her art. Without them, it would fail. An inveterate tease, Neel was riotously good company and loved to regale sitters with stories to charm them into exposing their true selves. The results—paintings of people at their most beautiful and hideous—are at bottom studies in human connection.

Collectors are catching up with her piercing vision. "The prices have definitely gone up," says Bellatrix Hubert of David Zwirner. These days Neel's paintings regularly sell for more than \$1m; last year "Doctor Finger's Waiting Room" went for \$3m. Museum-goers are embracing her too. The show in Paris has been a hit, says Angela Lampe, its curator at the Pompidou. Attendance figures in the fortnight after it opened reached levels associated with better-known artists such as Cy Twombly or Francis Bacon. The exhibition has remained popular since.

Art-lovers are gripped by Neel's intense humanity, Ms Lampe thinks. "We often feel uneasy looking at people face-to-face," she observes. "We usually look away." ■

Economic & financial indicators

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Economic data

	Gross domestic product			Consumer prices		Unemployment rate	Current-account balance	Budget balance	Interest rates		Currency units		
	% change on year ago latest	quarter*	2022†	% change on year ago latest	2022†	%	% of GDP, 2022†	% of GDP, 2022†	10-yr gov't bonds latest,%	change on year ago, bp	per \$ Dec 14th	% change on year ago	
United States	1.9	Q3	2.9	1.9	7.1	Nov	8.1	3.7	Nov	-3.5	-5.5	213	-
China	3.9	Q3	16.5	3.1	1.6	Nov	2.0	5.7	Nov‡§	2.4	-5.6	2.7	6.94 -8.3
Japan	1.5	Q3	-0.8	1.5	3.8	Oct	2.5	2.6	Oct	1.9	-6.3	nil	-8.0 135 -15.7
Britain	2.4	Q3	-0.7	4.4	10.7	Nov	8.0	3.7	Oct††	-5.9	-6.6	3.4	260 0.81 -6.3
Canada	3.9	Q3	2.9	3.1	6.9	Oct	6.7	5.1	Nov	1.6	-2.7	2.9	145 1.36 -5.3
Euro area	2.3	Q3	1.3	3.1	10.0	Nov	8.5	6.5	Oct	1.3	-4.2	2.0	230 0.94 -5.6
Austria	1.7	Q3	-13.5	4.8	10.6	Nov	8.8	4.6	Oct	-0.7	-3.5	2.6	265 0.94 -5.6
Belgium	1.9	Q3	0.7	2.2	10.6	Nov	10.0	5.4	Oct	-1.2	-5.2	2.5	252 0.94 -5.6
France	1.0	Q3	0.7	2.4	6.2	Nov	6.0	7.1	Oct	-1.8	-5.4	2.4	239 0.94 -5.6
Germany	1.3	Q3	1.6	1.6	10.0	Nov	8.4	3.0	Oct	4.1	-4.1	2.0	230 0.94 -5.6
Greece	2.1	Q3	-2.1	5.5	8.5	Nov	9.9	11.6	Oct	-6.3	-4.5	4.0	260 0.94 -5.6
Italy	2.6	Q3	1.9	3.7	11.8	Nov	8.6	7.8	Oct	-0.8	-5.7	3.8	287 0.94 -5.6
Netherlands	3.1	Q3	0.9	4.2	9.9	Nov	12.0	3.7	Oct	6.3	-1.4	2.2	246 0.94 -5.6
Spain	3.8	Q3	1.0	4.4	6.8	Nov	9.2	12.5	Oct	0.2	-5.4	2.9	249 0.94 -5.6
Czech Republic	1.7	Q3	-0.6	2.0	16.2	Nov	15.7	2.3	Oct‡	-3.7	-5.1	4.7	222 22.8 -1.5
Denmark	3.3	Q3	2.1	2.8	8.9	Nov	7.9	2.6	Oct	9.0	0.9	2.2	231 6.99 -5.6
Norway	2.5	Q3	6.3	3.5	6.5	Nov	6.4	3.4	Sep‡#	18.8	12.2	1.4	76.0 9.76 -6.7
Poland	4.5	Q3	4.1	5.0	17.4	Nov	14.6	5.1	Sep§	-3.3	-3.7	6.6	337 4.40 -6.7
Russia	-4.0	Q3	na	-3.6	12.0	Nov	14.0	3.9	Sep§	12.6	-1.8	10.3	178 64.9 13.6
Sweden	2.6	Q3	2.4	3.0	10.9	Oct	7.9	7.1	Sep§	3.7	-0.5	1.7	161 10.2 -10.4
Switzerland	0.5	Q3	1.0	2.0	3.0	Nov	3.1	2.0	Nov	5.5	-1.0	1.1	142 0.92 nil
Turkey	3.9	Q3	-0.5	5.0	84.4	Nov	74.1	9.9	Sep§	-7.8	-3.3	10.9	-943 18.6 -22.8
Australia	5.9	Q3	2.6	3.7	7.3	Q3	6.4	3.4	Nov	2.0	-1.9	3.4	174 1.46 -3.4
Hong Kong	-4.5	Q3	-10.0	-2.4	1.8	Oct	1.9	3.8	Sep‡#	4.4	-6.4	3.4	193 7.77 0.4
India	6.3	Q3	19.3	6.9	5.9	Nov	6.7	8.0	Nov	-2.7	-6.4	7.3	92.0 82.5 -8.0
Indonesia	5.7	Q3	na	5.1	5.4	Nov	4.2	5.9	Q3§	1.1	-3.9	6.9	63.0 15,593 -8.1
Malaysia	14.2	Q3	na	7.5	4.0	Oct	3.4	3.6	Oct§	1.5	-6.0	4.1	55.0 4.39 -3.6
Pakistan	6.2	2022**	na	6.2	23.8	Nov	18.2	6.3	2021	-4.0	-7.7	13.6	††† 167 225 -20.9
Philippines	7.6	Q3	12.1	7.7	8.0	Nov	5.4	4.5	Q4§	-4.2	-7.8	6.9	191 55.8 -9.7
Singapore	4.1	Q3	4.6	3.5	6.7	Oct	6.1	2.0	Q3	18.8	-1.0	3.0	135 1.35 1.7
South Korea	3.1	Q3	1.3	2.6	5.0	Nov	5.2	2.3	Nov§	1.0	-3.2	3.5	125 1,296 -8.8
Taiwan	4.0	Q3	7.5	3.0	2.3	Nov	3.0	3.6	Oct	14.0	-1.4	1.3	73.0 30.6 -9.0
Thailand	4.5	Q3	5.0	3.2	5.5	Nov	6.1	1.2	Sep§	-1.2	-5.0	2.5	82.0 34.6 -3.4
Argentina	6.9	Q2	4.2	5.6	88.0	Oct	72.8	6.9	Q2§	-0.5	-4.2	na	na 172 -40.9
Brazil	3.6	Q3	1.6	2.7	5.9	Nov	9.3	8.3	Sep‡##	-2.4	-5.6	13.2	273 5.32 6.3
Chile	0.3	Q3	-4.6	2.3	13.3	Nov	11.6	8.0	Sep‡##	-8.1	-0.3	5.4	-23.0 868 -2.0
Colombia	7.1	Q3	6.4	7.9	12.5	Nov	10.1	9.7	Sep§	-5.6	-4.7	13.3	543 4,782 -17.6
Mexico	4.3	Q3	3.6	2.7	7.8	Nov	7.9	3.2	Oct	-1.0	-2.5	8.9	161 19.7 7.5
Peru	1.7	Q3	1.8	2.7	8.4	Nov	7.8	6.0	Sep§	-3.6	-1.5	7.6	164 3.84 5.9
Egypt	3.3	Q2	na	6.6	18.8	Nov	13.3	7.4	Q3§	-4.6	-7.4	na	na 24.7 -36.3
Israel	7.6	Q3	2.1	5.9	5.1	Oct	4.5	4.1	Oct	2.9	0.3	3.3	240 3.40 -7.7
Saudi Arabia	3.2	2021	na	8.9	2.9	Nov	2.5	5.8	Q2	13.5	3.5	na	na 3.76 -0.2
South Africa	4.1	Q3	6.6	1.9	7.8	Oct	6.9	32.9	Q3§	-1.3	-5.5	10.5	102 17.2 -6.2

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 Dec 14th	% change on:			index Dec 14th	one week	Dec 31st 2021	% change on:			Dec 31st	month	year	
		one week	Dec 31st 2021	Dec 31st 2021				one week	Dec 31st 2021	Dec 31st 2021				
United States S&P 500	3,995.3	1.6	-16.2		Pakistan KSE	-0.2		-6.4						
United States NAScomp	11,170.9	1.9	-28.6		Singapore STI	1.6		5.0						
China Shanghai Comp	3,176.5	-0.7	-12.7		South Korea KOSPI	0.7		-19.4						
China Shenzhen Comp	2,048.6	-1.1	-19.0		Taiwan TWI	0.7		-19.1						
Japan Nikkei 225	28,156.2	1.7	-2.2		Thailand SET	0.7		-1.5						
Japan Topix	1,977.4	1.5	-0.7		Argentina MERV	-4.1		96.7						
Britain FTSE 100	7,495.9	0.1	1.5		Brazil BVSP	-4.9		-1.0						
Canada S&P TSX	19,891.7	-0.4	-6.3		Mexico IPC	-1.3		-6.1						
Euro area EURO STOXX 50	3,975.3	1.4	-7.5		Egypt EGX 30	4.0		29.1						
France CAC 40	6,730.8	1.1	-5.9		Israel TA-125	0.3		-10.4						
Germany DAX*	14,460.2	1.4	-9.0		Saudi Arabia Tadawul	0.6		-9.6						
Italy FTSE/MIB	24,573.9	1.4	-10.1		South Africa JSE AS	0.4		0.8						
Netherlands AEX	730.9	1.7	-8.4		World, dev'd MSCI	1.9		-16.3						
Spain IBEX 35	8,360.6	0.8	-4.1		Emerging markets MSCI	1.6		-21.0						
Poland WIG	57,447.4	2.6	-17.1		US corporate bonds, spread over Treasuries									
Russia RTS, \$ terms	1,060.7	-3.5	-33.5		Basis points	latest	Dec 31st 2021							
Switzerland SMI	11,160.7	1.4	-13.3		Investment grade	151	120							
Turkey BIST	5,066.5	5.0	172.7		High-yield	479	332							
Australia All Ord.	7,438.7	0.2	-4.4		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.									
Hong Kong Hang Seng	19,673.5	4.6	-15.9		For more countries and additional data, visit economist.com/economic-and-financial-indicators									
India BSE	62,677.9	0.4	7.6											
Indonesia IDX	6,801.8	-0.2	3.3											
Malaysia KLSE	1,483.2	1.1	-5.4											

Commodities

The Economist commodity-price index	2015=100	Dec 6th	Dec 13th*	% change on month	year
Dollar Index	All Items	150.2	151.3	2.9	-3.1
	Food	133.8	136.1	-0.9	0.1
Industrials	All	165.6	165.5	5.9	-5.4
	Non-food agriculturals	134.3	132.4	-5.5	-17.0
	Metals	174.9	175.3	8.9	-2.3
Sterling Index	All items	187.6	186.3	-1.3	3.5
Euro Index	All items	158.6	157.7	0.2	2.7
Gold	\$ per oz	1,774.5	1,813.5	2.4	2.1
Brent	\$ per barrel	79.6	80.6	-14.2	9.5
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.					



To breach a wall

Squadron leader George Leonard "Johnny" Johnson, last of the Dambusters, died on December 7th, aged 101

THE ODDEST thing, thought Johnny Johnson—once it was nose up, and they were racing for the Dutch coast—was that there had been no one there. They had set off late on this mission, on May 16th 1943, well after the two other formations of Lancaster bombers in 617 Squadron had gone. But at their target, the Sorpe dam at the heart of the German Ruhr, the skies were empty. In the brilliant moonlight the dam shone, intact. Not only was no one else attacking it at the time, but clearly no one had started.

Of course he had been busy in his “office”, lying on his stomach on a padded bench at the front in that sweet aroma of engine oil and aircraft fuel, eyes switching from markers to target to the ground that tore past under him beyond the Perspex nose-cone, ready to shout to the pilot “Right—right—steady” if the perfect spot appeared. At that point, the pilot would throw the master switch; the bomb-release button in his own hand became live; when he pressed it, the bomb would fall. All through, he could concentrate only on the job he had to do.

Besides, he loved doing it. He doubled as a spare gunner, manning a Browning .303-calibre machinegun, but nothing matched the thrill of the bomb-aimer’s work. It paid better, too: 12/6d a week, against 7/6d for a gunner. He naturally watched the pennies, because he had grown up poor. His father was a farm worker, ignorant and brutal, who would beat him with a leather razor-strop when something hadn’t been done right. His mother died before he was three, and his older sister Lena became the one source of kindness in their run-down cottage. For years his horizon was nothing but the dull, flat fields of Lincolnshire until he went away, despite his father, to boarding school, scraped his School Certificate and, at 18, volunteered for the RAF to give Hitler a bloody nose.

The May 16th raid had potential to be the bloodiest yet. It was a mystery, though, right up to the last minute. For a couple of months his crew, then known as Squadron X, had been training for

a “special” job over lakes in the English Midlands, learning to drop bouncing bombs that had to be released at precisely 60 feet and 200 knots. They bounced because they were set spinning in the bomb bay beforehand. It was all top secret, and none of the crew knew what the target was. On the night before the raid they learned they were to attack three dams, the Möhne, the Eder and the Sorpe, to flood the industrial centre of Germany. Bouncing bombs could breach the defences of the first two dams. But his crew’s target, the Sorpe, built of earth-banked concrete and set among hills, defied any bomb-sight and couldn’t be flown at directly. They would have to skim very low along the dam and drop an inert bomb, with 6,600lb of explosives, at the estimated centre of it. They had not practised that.

By this stage in the war Johnny Johnson had done two tours, and was eager to do more. Being in the RAF was not just his way of getting back at Hitler. It had also, for the first time, given him a family: a band of brothers who smoked and ate together and actually talked to each other, unlike his own brothers. He was still a bit of a loner, not liking to drink or lark about and embarrassed by his Lincolnshire accent (“How do me duck? Are you alreet?”). The love that bound them was for Chuck-Chuck, the crew’s usual Lancaster, named after the patriotic panda painted on her nose: a beautiful, inspirational machine, making music as she flew with her Rolls-Royce Merlin engines. If Lady Luck played a prominent role in his military life, heaving him out of scrape after scrape, Chuck-Chuck made him believe he would always get home again.

On May 16th, though, their aircraft was a different one. It was touch and go. On the way, one gunner tried a Browning burst on an armoured train; the shell sent in reply burst a tyre and pierced a wing. On the way back, they ran into fierce flak above the Hamm railway yards. As for the bombing, it was lucky he was blessed with patience. Nine times they flew the length of the Sorpe dam, but failed to make the drop at the right spot at the exact time. “Dummy run,” he would shout, and Flight-Lieutenant Joe McCarthy would take the Lanc lower, until they were only 30 feet above it. On the tenth the drop was perfect, as it had to be. The explosion sent water 1,000 feet above them. Yet they had cracked the parapet for only six yards or so. The other dams, massively breached by other crews, had flooded the fields around them into an inland sea.

They were all, however, Dambusters. The raid brought a surge of morale to battered Britain, and made them all heroes. In time there was a film with a catchy marching theme in it, though sadly no mention of the Sorpe. For him the raid brought a Distinguished Flying Medal and, in time, an MBE. Not bad for a lad whose only prospect had been milking and haying and the Lincolnshire wind, cold as a witch’s tit.

It was harder to talk about the raid itself. For a single operation, the losses were terrible. Around 1,600 people had drowned, mostly Soviet slave labourers. He would rather they were Nazis, but his focus was on his own side. Of 19 planes sent, three had turned back and eight had been lost. Of the 133 crew, 53 had not returned. In the bars back at base the mood of 617 Squadron was commiseration rather than celebration. He now knew why, as they had neared the Sorpe dam, there had been no sign of anyone else around.

His post-war life filled up quickly with navigator training, family life with Gwyn and the riotous Welsh in-laws, and then, after the RAF, teaching psychiatric patients and dipping into local politics. If anyone criticised the raid he would simply ask: were they there? Did they understand the circumstances of the time? If not, they should keep their bloody mouths shut.

After Gwyn’s death in 2005, his children persuaded him to speak out himself. Soon, as the last Dambuster left, his was the only voice that could relate the thrill of that low, searching flight, the fear of a hill crash, the rear-gunner’s shout of “Thank Christ!” as the bomb finally fell—and could keep alive the sacrifice of those who had not made it back. He could firmly call it a great raid, and know that this job was the one he now had to do. ■