

The Economist

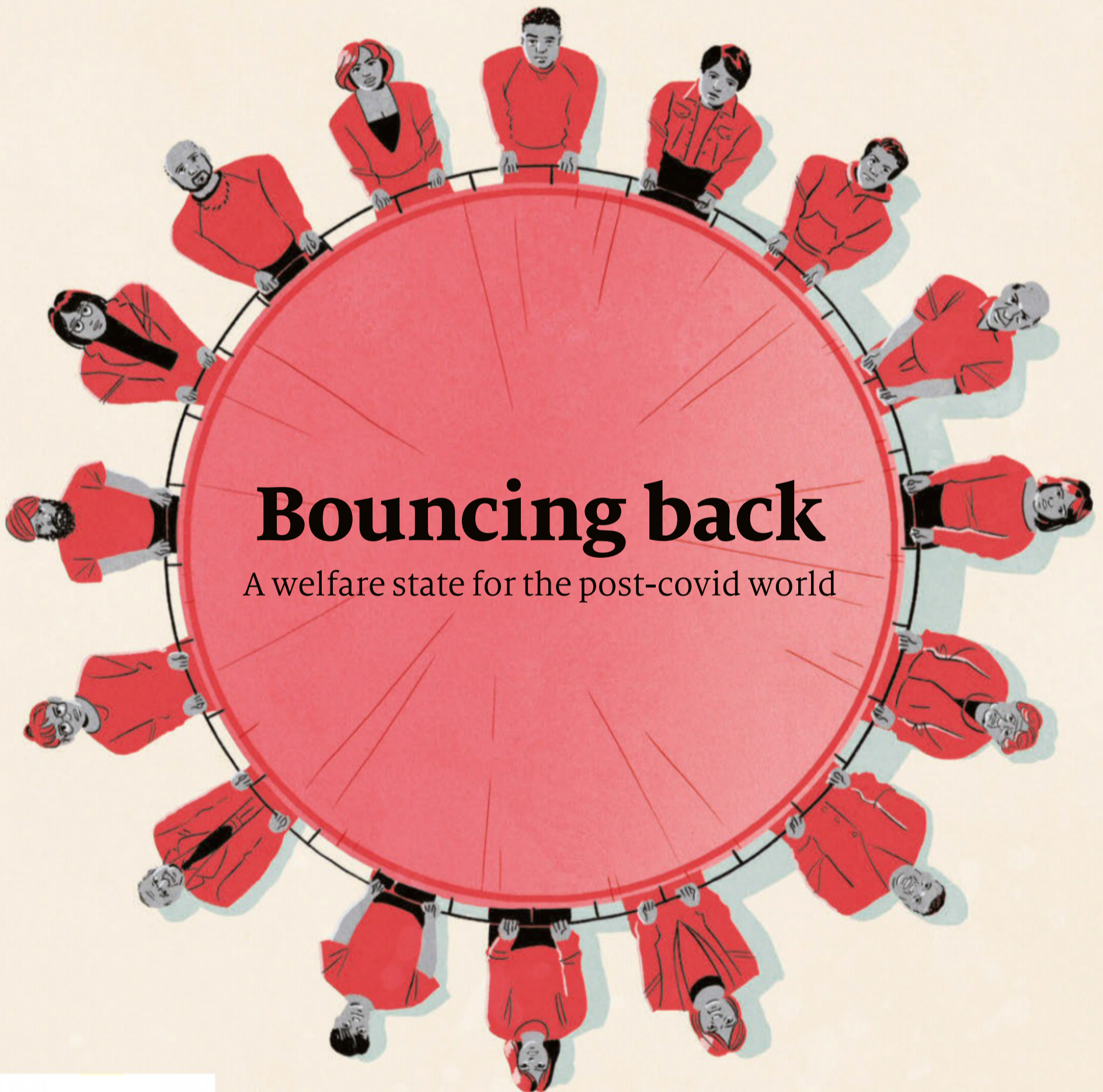
Sunak's St Augustine budget

The meaning of Xi's police purge

Can America escape the Middle East?

Lessons of Fukushima

MARCH 6TH-12TH 2021



It's not a fair game



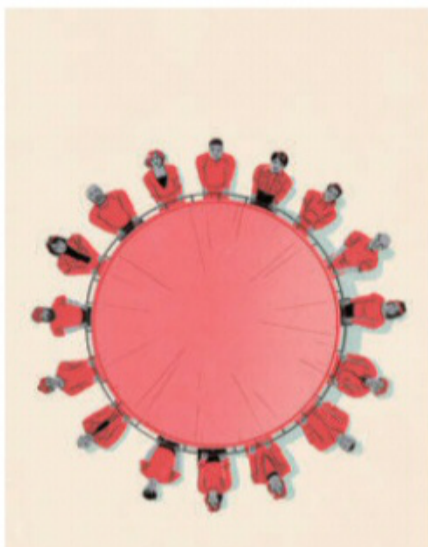
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Sunak's St Augustine budget

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In **Hong Kong**, 47 activists were charged with violating the territory's national-security law. As a court began hearing defendants' petitions to be released on bail, hundreds of supporters gathered outside. The activists' alleged crimes relate to an informal primary ballot held last year by pro-democracy politicians in order to produce strong candidates for the Legislative Council. The government saw this as a plot to gain control of the council and block its work.

China's Communist Party began a purge of agencies involved in maintaining law and order, including the police, secret police, courts and the prison system. The aim is to cleanse their ranks of corruption and disloyalty to China's leader, Xi Jinping.

Security services killed dozens of people demonstrating against the recent military coup in **Myanmar**. The repression of the protests has been getting steadily more violent.

Mushtaq Ahmed, a writer detained without trial for almost a year in **Bangladesh** for criticising the government online, died in a prison hospital. On the same day in neighbouring **India** the government published new rules obliging social-media firms and digital publishers to remove certain content at the government's request.

In **El Salvador**, New Ideas, a party created in 2018 by Nayib Bukele, the 39-year-old president, won a landslide in legislative elections, taking at least 56 seats in the 84-seat assembly. Mr Bukele, who has been president since 2019, has an

approval rating of around 90%. Now he has even fewer checks on his power.

Controversial changes to energy rules in **Mexico** proposed by the president, Andrés Manuel López Obrador, became more probable. The Senate agreed to a measure that could give the state power utility priority over private firms in supplying power to the grid, even if its output is dirtier and costlier. This could breach free-trade rules.

America's House of Representatives passed a bill that would **make postal voting easier** and weaken the voter-ID requirements favoured mostly by Republican state legislatures. The bill is unlikely to pass the Senate, where it would need the support of Republicans.

Joe Biden abandoned his attempt to appoint **Neera Tanden** as his budget director, because of a lack of support in the Senate. Her previous abrasive tweets about senators pondering her nomination probably did not help.

Andrew Cuomo, the governor of New York, said he would not resign, after three women accused him of behaving inappropriately. This comes on top of criticism of Mr Cuomo's lack of transparency over covid-19 deaths in the state's nursing homes.

America placed seven **Russian** officials, including Russia's top spy, under sanctions for their alleged part in the poisoning last year of Alexei Navalny, the country's leading opposition figure.

Nicolas Sarkozy, a former president of France, was convicted of corruption and sentenced to three years in prison, two of them suspended. He immediately appealed. This is the first time a French president has been handed an irreducible jail term (Jacques Chirac got a suspended prison sentence for misusing public funds as mayor of Paris).

Hungary's prime minister, Viktor Orban, withdrew his Fidesz party from the European People's Party, the centre-right and largest grouping in the European Parliament. This came as the EPP agreed to rules that would make it much easier to expel a delegation from a country, like Hungary, that violates the rule of law.

Scotland's first minister, Nicola Sturgeon, faced tough questions from a parliamentary committee at Holyrood about her mishandling of allegations of sexual harassment levelled at Alex Salmond, her predecessor. A jury found Mr Salmond not guilty of all charges a year ago.

Britain's Supreme Court ruled that Shamima Begum could not return to the country to challenge the government's decision to strip her of her citizenship. At the age of 15 Ms Begum left Britain to join Islamic State in Syria and is stuck in a camp there. The court decided that her right to a fair hearing did not override public-safety concerns.

The International Criminal Court's chief prosecutor opened an investigation into alleged war crimes in the **Palestinian** territories since June 2014. After a preliminary examination she said charges could be filed against both Israelis and Palestinians.

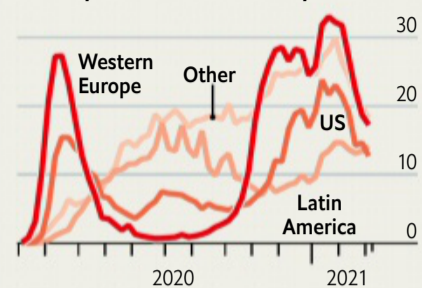
Israel's prime minister, Binyamin Netanyahu, said **Iran** was behind an explosion that damaged an Israeli-owned commercial vessel in the Gulf of Oman. Days later one of his ministers linked Iran to an oil spill off Israel's coast that has caused grave environmental damage.

Amnesty International accused government forces in **Mozambique**, mercenaries working with them and the jihadists they are battling of committing war crimes. A report by the human-rights group said the warring parties have indiscriminately killed hundreds of civilians.

Coronavirus briefs

To 6am GMT March 4th 2021

Weekly confirmed deaths by area, '000



Vaccination doses

	This week, '000	Total '000	Per 100 people
Israel	768	8,315	96.1
Seychelles	12	80	81.5
UAE	463	6,095	61.6
Britain	2,579	21,323	31.4
United States	11,653	78,632	23.5
Maldives	36	124	22.9
Serbia	226	1,502	22.1
Chile	508	3,660	19.2
Malta	14	82	18.5
Bahrain	24	303	17.8

Sources: Johns Hopkins University CSSE; Our World in Data; United Nations

Joe Biden promised that there would be enough covid-19 vaccine for every adult in **America** by the end of May. This came after the White House negotiated a deal by which Merck will help produce the one-shot dose developed by Johnson & Johnson.

Facing criticism about the slow speed of its vaccination drive, the **French** government said people aged 65 to 74 would now be able to get the AstraZeneca shot. People over 75 still must have either the Pfizer or Moderna jab.

Colombia became the first country in Latin America to receive vaccines through the COVAX distribution programme, backed by the World Health Organisation.

The governor of **Texas** ordered the lifting of most restrictions relating to covid-19, saying his state was open for business "100%". Health officials warned that this was too soon.

→ For our latest coverage of the virus please visit economist.com/coronavirus or download the *Economist* app.

The American Senate began debate on Joe Biden's \$1.9trn **stimulus bill**, after it passed the House of Representatives. Mr Biden will need the support of all 50 Democratic senators if it is to succeed. In one setback, the Senate's parliamentarian said that a measure to raise the minimum wage to \$15 an hour could not be included in the legislation under the procedure by which the Democrats have introduced the bill.

Spend now, pay later

In Britain the government's **budget** provided yet more spending on workers and businesses to cushion the blow of the pandemic. The furlough scheme, which pays staff wages and has been in place for a year, was extended to September. Fiscal support for the pandemic now totals £407bn (\$570bn). To pay for all this the government set out tax increases, including a rise in corporation tax from 19% to 25% in 2023. Before that there will be a two-year tax break for companies intended to spur investment.

Bond markets were quieter, following a rout in prices sparked by fears of rising inflation in America. The yield on the ten-year US Treasury bond fell back to 1.46%, having risen above 1.6%. It started the year well below 1%.

India's economy pulled out of recession in the last three months of 2020, but only just. GDP expanded by 0.4% in the quarter, year on year.

A huge stimulus package helped **Brazil** limit the pandemic's damage to its GDP, which shrank by 4.1% last year, a better performance than economies of similar size.

February was a record month for the value of **SPACS**, shell companies that list on a stock exchange with the intent of merging with an existing company, and so avoid the rigours of an IPO. SPACS struck 50 merger deals last month, totalling almost \$109bn.

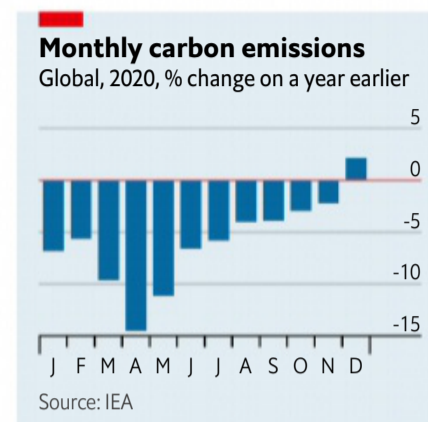
Rio Tinto's chairman decided to step down within a year because of the mining company's demolition of a sacred Aboriginal cave in Australia in May 2020. Australian pension funds had pressed Rio's board to hold senior executives to account for the destruction.

Another week and another carmaker announced an ambitious electrification strategy, as **Volvo** said it would phase out all petrol-powered cars, including hybrids, by 2030, and sell only fully electric ones. It also plans to disrupt the established way of selling cars by ditching dealerships and making its new cars available only online.

Las Vegas Sands, founded by the late Sheldon Adelson, reached an agreement to sell the **Venetian hotel** in Las Vegas to private-equity and property investors for more than \$6bn. The investors are taking a punt that Sin City will rebound when covid-19 restrictions are eased. The deal underpins Las Vegas Sands' focus on its casinos in Macau and Singapore, the backbone of its business.

Both **Lufthansa** and International Airlines Group, the owner of **British Airways**,

reported big annual losses. Looking for ways to save cash, BA has reached an agreement to defer £450m (\$628m) in pension deficit contributions.



Covid-related restrictions brought about a 6% drop in energy-related **carbon-dioxide emissions** last year, according to the International Energy Agency. But as demand picked up, so did emissions, which were 2% higher in December 2020 than in December 2019. With its economy rebounding, China's emissions rose over the year, by 0.8%; in America they fell by 10%. Globally, the decline in road activity accounted for 50% of the fall in demand for oil, and the slump in aviation for 35%.

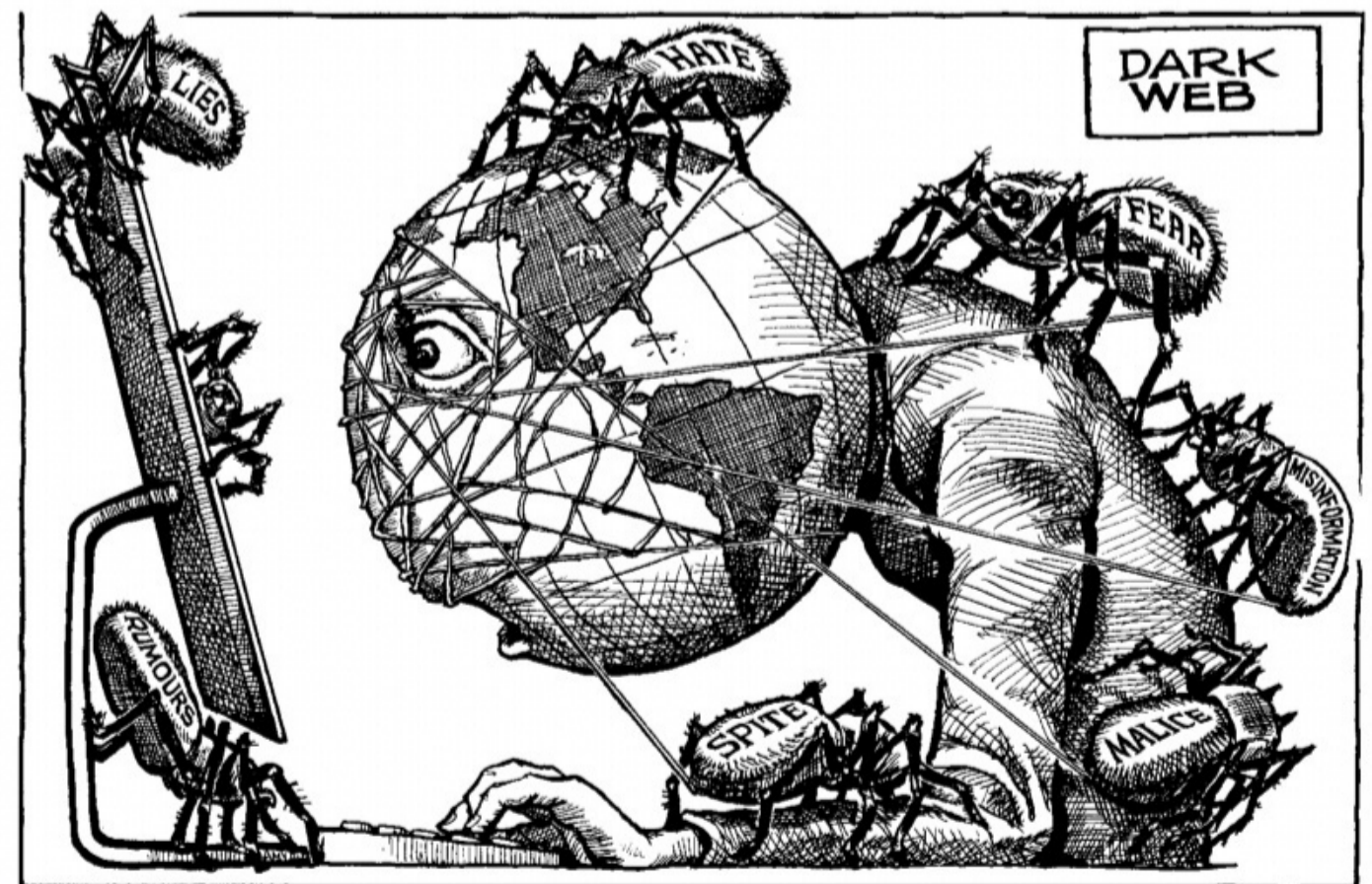
There may be a new president in the White House, but **Amazon** still finds itself caught in political crosshairs. Joe Biden warned the retail giant this

week not to interfere with a vote by workers at a warehouse in Alabama on whether to unionise, a first for all the employees at an Amazon facility. Meanwhile, Amazon was forced to change the recent redesign of its app logo, because the Twitterati thought it resembled Hitler.

Birkenstock was sold to a private-equity firm backed by LVMH in a deal worth €4bn (\$4.8bn). Associated with hippies in the 1970s until they became de rigueur for hipsters in the 1990s, Birkenstock sandals trace their history back to Germany in 1774; the current design dates from the 1960s. The Birkenstock family will no longer be sole owners, but they will retain a minority stake.

A one-way ticket?

Maezawa Yusaku, a Japanese tycoon, invited applications for eight places on his planned trip around the Moon, pencilled in for 2023. Meanwhile **SpaceX**, the firm that will fly Mr Maezawa and his companions, was testing a prototype version of the rocket he hopes to use. The machine managed to return to its landing pad after flying 10km into the air, but blew up a few minutes later.



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QUANTIC

Bouncing back

How to make a social safety net for the post-covid world

AFTER THE Depression and the second world war, voters and governments in rich countries recast the relationship between the state and its citizens. Now the pandemic has seen the old rules on social spending ripped up. More than three-quarters of Americans support President Joe Biden's \$1.9trn stimulus bill, which is due in the Senate and includes \$1,400 cheques for most adults. And in the budget on March 3rd Britain extended a scheme to pay the wages of furloughed workers until September, even as public debt hit its highest level since 1945 (see leader). Such boldness brings dangers: governments could stretch the public finances to breaking-point, distort incentives and create sclerotic societies. But they also have a chance to create new social-welfare policies that are affordable and which help workers thrive in an economy facing technological disruption. They must seize it.

The past year has seen a wild experiment in social spending. The world launched at least 1,600 new social-protection programmes in 2020 (see Briefing). Rich countries have provided 5.8% of GDP on average to help record numbers of workers. Government debts are piling up, but so far low interest rates mean that they are cheap to service. The public's mood had already been shifting. Britons used to grumble that layabouts sponged off the welfare state; now they are more likely to say help is too stingy. Last year over two-thirds of Europeans said they supported a universal basic income (UBI), an unconditional recurring payment to all adults. Affluent professionals have had their gaze drawn to the working conditions of those who deliver food and look after the sick. The struggles of women who have dropped out of the workforce to care for children and the elderly have become impossible to ignore.

The social safety net in many rich countries was creaking before covid-19 struck. Modelled on the ideas of Otto von Bismarck and William Beveridge, it had often failed to cushion workers from globalisation and technological and social change. In 1999-2019 the number of Americans aged 25-54 outside the labour force grew by 25%, or 4.7m, over six times more than the number who received help from the main assistance programme for displaced workers. As health-care and pension costs soared in recent years, governments cut back support for working-age people. Between 2014 and 2018 Britain's state-pension bill grew in real terms by £4bn (\$5.8bn), even as the rest of its welfare budget shrank by £16.5bn. A dwindling share of middle-income jobs and the growth of the gig economy fuelled fears that labour markets were changing faster than flat-footed governments could.

With the public and some economists cheering on, it is tempting for politicians to stoke the economy with more ad hoc spending, or put in place vast schemes such as UBI. Instead they need to take a measured, long-term view. The safety net must be affordable. Tight budgets, not milk and honey, will define the 2020s. The annual deficit of big advanced economies was 4% of their combined GDP even before the pandemic—and much ageing is still to come. Already bond yields are rising again (see Finance section). Social spending must flow quickly and automat-

ically to those who need it—not, as in America, only during crises when a panicked government passes emergency legislation. And governments need to find mechanisms that cushion people more effectively against income shocks and joblessness without discouraging work or crushing economic dynamism.

The first step towards satisfying these goals is to use technology to make ancient bureaucracies more efficient. Postal cheques, 1980s mainframe computers and shoddy data need to be relegated to the past. In the pandemic many governments temporarily short-circuited their existing systems because they were too slow. In Estonia and Singapore digital-identification systems and a disdain for form-filling became an asset in the crisis. More countries need to copy them and also to ensure universal access to the internet and bank accounts. The call for efficient administration may sound like tinkering but one in five poor Americans eligible for wage top-ups fails to claim them. Nimble digital-payment systems will reduce the need for costly universalism as a fail-safe, and allow better targeting and quicker response times. Digital systems also permit the emergency option of making temporary cash payments to all households.

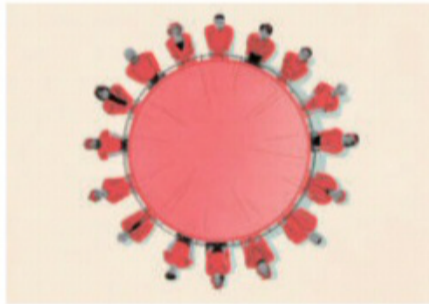
That is the easy part. Balancing generosity and dynamism is harder. Part of the solution is to top up the wages of low-paid workers. Anglo-Saxon countries have done this well since reforms in the 1990s and 2000s. But wage top-ups are of little use to the jobless and are often scant compensation for people who lose good jobs to forces beyond their control. Paltry support for the unemployed in Britain and America preserves incentives to work but at high human cost. The sparsity of social insurance has undermined political support for creative destruction, the catalyst for rising living standards.

Continental Europe tends to underwrite traditional workers' incomes more generously. But the distortion of incentives leads to higher unemployment and divisions between coddled insiders and a precariat. Both sides of the Atlantic lack a permanent safety net that insures gig workers and the self-employed.

There is one country that combines labour-market flexibility with generosity: Denmark, which spends large sums—1.9% of GDP in 2018—on retraining and on advising the jobless. These interventions stop the unemployed from falling into dependency. The inadequacies of policies elsewhere are often glaring. Britain's efforts have flopped. America's comparable spending is less than a 20th as large as Denmark's, even though the few lucky beneficiaries of its "trade-adjustment assistance" earn \$50,000 more in wages, on average, over a decade.

Bungee economics

For years social spending has favoured the elderly and an outdated safety net. It should be rebuilt around active labour-market policies that use technology to help everyone from shop-workers who are victims of disruption to mothers whose skills have atrophied and those whose jobs are replaced by machines. Governments cannot eliminate risk, but they can help ensure that if calamity strikes, people bounce back. ■



Fiscal policy in Britain

St Augustine's economics

The chancellor wants to rein in government spending, but not yet

BRITAIN HAD a particularly bad bout of covid-19 and took an especially large economic hit as a result. In response the government provided more fiscal stimulus than almost any other in the world, paying millions of people's wages and bailing out businesses to the tune of 16% of GDP. As Britain slowly lifts its lockdown the conversation has turned to balancing the books, and ahead of the budget on March 3rd the Treasury briefed that fiscal austerity was in store. Yet Rishi Sunak, the chancellor of the exchequer, will wait to turn the screws. He delivered a surprisingly generous budget, and has postponed tax rises. Like a fiscal St Augustine, he wants continence—but not yet.

The budget represents the synthesis of two opposing forces. On the one hand Mr Sunak wants to placate a range of hawkish constituencies, such as Thatcherite backbench Tory MPs who would rather the government keep taxes low and bond traders who in recent weeks have sold their investments in sovereign debt. On the other hand he is rightly concerned not to repeat the mistake of his predecessor-but-two: after the financial crisis in 2007-09 George Osborne cut spending and raised taxes too soon, thereby delaying the recovery.

Policies in this budget are designed to help Britain out of its deep economic hole (see Britain section). The extension of the furlough scheme from April to September will put money in people's pockets, helping power a recovery in household spending. A highly unusual proposal to allow firms to write off 130% of investment expenses against their tax bills is designed to supercharge Britain's perennially low rate of business investment.

At the same time, the budget has blind spots. Extending the furlough is better than nothing, but it would have been wiser to focus resources on boosting working-age welfare, currently at its least generous level ever. This would have helped workers

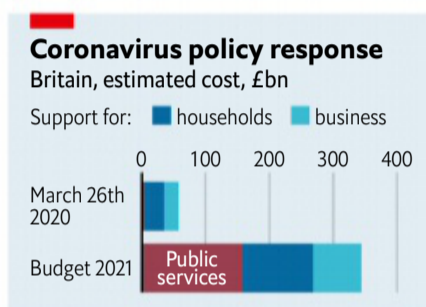
move from dying sectors to up-and-coming ones without seeing a sharp drop in their take-home income. And a government that likes to trumpet its green credentials should not be buying off voters by freezing taxes on fuel.

A bigger difficulty is that there is no credible strategy for righting the fiscal ship. True, Mr Sunak promised to raise corporation tax in 2023 from 19% to 25%. Politically that is astute. It puts the opposition Labour Party into a tricky position, forcing it to decide whether it wants to support the rise (and thus implicitly back austerity) or oppose it (and thus appear to be taking the side of Britain's corporate fat cats).

In economic terms, however, Mr Sunak is being evasive. The yield from even large rises in corporation tax is low. Moreover, will he actually impose such a tax rise just when the 130% investment write-off ends and when an election is likely to be just around the corner? It is more probable that the chancellor hopes the coming investment boom is so large that he can cancel most of the tax increase and that he will be able

to pass a smaller rise as, in effect, a "cut".

At some point, however, politics will catch up with him. That is in part because of Britain's rapidly ageing population, and in part because the government has bizarrely made no provision whatsoever for virus-related costs beyond next year. Britain is on an inexorable trend towards higher budget deficits. It is hard to find much waste in the public sector, which limits the scope to cut spending. The chancellor will have to fall back on higher taxes. He will have to consider slaying sacred Tory cows, including a pledge not to increase income tax. He should consider reform of property and value-added taxes. Hawkish rhetoric is all very well, but eventually Mr Sunak will have to follow St Augustine onto the path of fiscal virtue. ■



The Middle East

It's complicated

What America should do in the Middle East

JOE BIDEN has made no secret of his frustration with Saudi Arabia. A "pariah" with "very little social redeeming value", he called its government in 2019. One of his first acts as president was to end American support for the Saudi-led war in Yemen. Last week he released an intelligence report that blamed the kingdom's crown prince, Muhammad bin Salman, for the murder of a journalist in 2018. But at that point Mr Biden's ideals collided with America's national interest. The prince may be a brute, but he is also in charge of an important American ally. In the end Mr Biden decided that the cost of punishing him would have been too high.

This is all part of a larger cost-benefit analysis taking place in the White House. Mr Biden has signalled that he wants to make

the Middle East less of a priority. He has good reason to pull back. America has thousands of soldiers spread across Arab countries, yet its interventions have produced dismal results. Many Americans argue that their country should instead focus on countering China's growing global influence. The question facing the Biden administration is how to lighten America's burden in the Middle East while still protecting its vital interests there. That will not be easy.

It helps that those interests are not what they were. For decades America focused on the flow of Gulf oil and the survival of Israel. Last year America was a net exporter of both oil and natural gas. And Israel, the best-armed country in the region, now has formal ties with many of its Arab neighbours. ►

▶ Yet vital interests remain. Terrorist groups that find havens in Iraq, Syria or Yemen may end up striking the West. If the government in Iran seeks a bomb it risks setting off an arms race that would blow apart the global non-proliferation regime and permanently put the Middle East on a nuclear knife-edge.

In the past America has sought to impose magical solutions. George W. Bush attempted to decree a democracy in Iraq. Donald Trump wielded sanctions to force capitulation or a change in regime in Iran. As these approaches failed, American policy swung between interest and apathy, and war and retreat.

Mr Biden should instead try to bring stability by getting the region to take responsibility for itself and discouraging leaders from being so dependent on armed force. America's big arms sales to the region's despots are a source of trouble. And they do little to help the region's people, who suffer from poor government and abusive regimes, which in turn foster extremism. RAND, a think-tank, recently noted that America spends roughly as much on Egypt's armed forces as it does on aid to the entire region. Mr Biden should cancel the blank cheque for mischief-making and repression.

The second leg to this strategy is to enhance the Middle East's capacity for diplomacy. The deals known as the Abraham Accords, which the Trump administration helped broker between Israel and several Arab states, are a tentative start towards upgrading the region's diplomatic machinery. Mr Biden should encourage more such talking. Saudi Arabia and the United Arab Emirates were shocked when Mr Trump failed to come to their defence after attacks by Iran and its proxies. Iran is suffering under American sanctions. Their anxiety gives Mr Biden leverage in asserting that lowering tensions is in everyone's interest.

Encouraging diplomacy does not mean withdrawing all American troops. They have helped suppress Islamic State and al-Qaeda, which are still active. And soft power tends to be more effective when hard power lurks in the background. For example, the air strike on an Iranian-backed militia in Syria last month was retaliation for an attack on Americans in Iraq—and a signal to the government in Tehran that Mr Biden would not roll over in negotiations to revive the Iran nuclear deal. Talking is not easy but, if America wants to focus less on a troubled part of the world, it is the only way ahead. ■

Chinese politics

The darkest corners

A clear-out of the security agencies shows the opacity of power in China

PURGES HAVE grown more common since Xi Jinping took over as China's leader in 2012. To curb graft and snuff out any opposition to his rule, Mr Xi has been hunting in every corner of the country's vast bureaucracy. Hundreds of thousands of officials have been punished. Thousands, many of them high-ranking, have been sent to prison. Remarkably, however, some people do not appear to have got the message. A new campaign has just been launched within the domestic security services (see China section). Weeding out the disloyal is its primary goal.

Can there still be serious opposition to Mr Xi? There is certainly little sign of it on the streets. Many ordinary citizens express content with his rule. Under him, China has become far more influential globally. The economy has kept on growing at a healthy rate (and surprisingly well despite the pandemic). His anti-corruption efforts are popular. Neither is there any obvious sign of discontent within the Communist Party elite. It seems likely that many bitterly resent the anti-graft inspectors, and that some senior officials even gnash their teeth. But those with misgivings about Mr Xi know they must keep their mouths shut and their heads down.

A lesson from this latest purge, however, is that the outside world only dimly understands Mr Xi's political world. One stated aim of the campaign is to remove the "pernicious influence" of Zhou Yongkang, who was China's security overlord just before Mr Xi took power. Mr Zhou was jailed in 2015 for corruption and leaking state secrets. Officials also accused him of "political plotting"—shorthand, many observers believe, for scheming against Mr Xi. That his name is still being invoked years later hints at tensions, but it is hard for outsiders to judge how serious they are. The agencies being targeted in the new campaign occupy the darkest corners of an opaque political system: the

police, the secret police, the judiciary and the prison service. In the months leading up to the purge several powerful figures within this apparatus were toppled. One was the chief of police in Shanghai, who has been accused of forming "factions". All detail of what that may mean is a closely guarded secret.

Despite this, the new purge contains clear messages. One is Mr Xi's appetite for power. The campaign will wrap up in time for a big political event late in 2022: the five-yearly party congress. He looks sure to use this to extend his rule for another five years, in defiance of the convention that general secretaries step down after a decade. Tightening control over the security forces will help crush any opposition to his innovation.

That raises the other, still bigger, reason to pay attention. For all the seeming relentlessness of the rise of China under an increasingly adamant authoritarianism, politics can pack surprises that suddenly change the country's trajectory. Consider the arrest of Mao Zedong's widow and others in the "Gang of Four" in 1976, the struggle that brought Deng Xiaoping to power two years later, the regime-threatening splits within the party that emerged during the Tiananmen Square protests of 1989 and the political bloodletting that eliminated Mr Xi's rivals in the lead-up to his own anointment. You cannot rule out more such disruptive shocks.

In the build-up to next year's congress, the murky waters of Chinese politics will deserve even closer scrutiny. That is in part because Mr Xi defies norms. As well as rejecting the modern principle that China's leader gets only ten years at the top, he has seized more levers of power than any ruler since Mao. It is also because, under Mr Xi, the regime has become even more secretive. Alas, such secrecy makes for a government less accountable to citizens and more likely to catch the world unaware. ■



Ten years after 3/11

The lessons of Fukushima

Nuclear power must be well run, not ditched

IT HAS BEEN ten years since a tsunami laid waste the Pacific coast of northern Honshu, Japan's most populous island. The tsunami and the undersea earthquake which triggered it, the largest ever recorded in the region, killed nearly 20,000 people, destroyed over 100,000 homes and threw the lives of tens of millions into turmoil. The direct economic cost, estimated at over \$200bn, was larger than that of any other natural disaster the world has seen. And yet for many around the world the event is remembered for just one thing: the ensuing crisis at the Fukushima Dai-ichi nuclear power plant (see Asia section).

The earthquake cut the plant off from outside sources of electricity. The tsunami easily topped the plant's sea walls, flooding the underground bunkers containing its emergency generators—a foreseeable risk Japan's neutered regulators had failed to foresee. Because there was no way to cool the reactor cores, the nuclear fuel within them began to melt; amid fire, explosion and alarming amounts of radiation, a puddle from hell began eating into the plant's concrete foundations.

The world looked on aghast. In Shanghai and San Francisco iodine tablets and iodised salt jumped off the shelves as people looked for prophylaxis of which they had no need. In Germany the chancellor, Angela Merkel, who had long stood with business leaders against the country's powerful anti-nuclear movement, ordered its reactors phased out. In China the world's largest new nuclear-plant programme was put on hold. Talk of a "nuclear renaissance" to fight climate change fell silent.

The reaction, though understandable, was wrong. Nuclear power has a lot of drawbacks. Its large, slowly built plants are expensive both in absolute terms and in terms of the electricity they produce. Its very small but real risk of catastrophic failure requires a high level of regulation, and it has a disturbing history of regulatory capture, amply demonstrated in Japan. It produces extremely long-lived and toxic waste. And it is associated with the proliferation of nuclear weapons. Most of the countries outside Europe that use nuclear power have some history of attempting to develop a bomb. All these factors contribute to an unease with the technology felt, to greater or lesser extent, by people all around the world.

Against all that, though, two things must be remembered. One is that well-regulated nuclear power is safe. With the terrible Soviet-era exception of Chernobyl, nuclear disasters come without large death tolls. It was the tsunami, not radiation, that claimed nearly all those lives in Fukushima. The other is that the climate is in crisis, and nuclear plants can supply some of the vast amounts of emissions-free electricity the world needs if it is to cope. Solar and wind power are now much cheaper, but they are intermittent. Providing a reliable grid is a lot easier if some of its generating capacity can be assumed to be available all the time. Nuclear provides such capacity with no ongoing emissions, and it is doing so safely and at scale around the world.

Despite this, safe and productive nuclear plants are being closed across the rich world. Those closures and the retirement of older sites mean that advanced economies could lose two-

thirds of their nuclear capacity by 2040, according to the International Energy Agency. If new fossil-fuel infrastructure fills the gap, it will last for decades. If renewables do so, the opportunity cost will be measured in gigatonnes of carbon. Renewables replacing nuclear capacity would almost always be better deployed to replace fossil-fuel capacity.

Sometimes the closure of nuclear plants is largely a matter of economics. In places where emitting carbon dioxide comes with no price, such as America, the benefits of being emissions-free are hidden from the market. That hurts nuclear, and it should be rectified. When closure is political, the onus is on Green politicians, in particular, to change their tune. To hasten the decline of nuclear power is wilfully to hobble the world in the greatest environmental struggle of all.

The argument for keeping existing nuclear plants open has been strengthened, in some places, by one of the responses to Fukushima: greater independence for nuclear regulators. Britain granted new freedom to its regulator after 2011. So did Japan. Though grander hopes for reform after the tsunami bore little fruit, Japan did largely take the regulators' hand from the power companies' glove. Its new supervisor has made reopening mothballed nuclear power plants harder than the government would like, but that is as it should be. In Japan more than anywhere, nuclear needs to earn back trust to be useful.

This points to nuclear's greatest weakness. In democracies it is expensive, owing to regulation and public antipathy, which makes new nuclear power a hard sell. The technology is thus increasingly the preserve of autocracies—precisely the systems where good regulation is least likely. Having paused after Fukushima, China's nuclear plans accelerated as part of an

effort to reduce reliance on coal. China produced four times as much nuclear energy in 2019 as it did in 2011; it has 16 reactors under construction and another 39 planned. Countries wanting new nuclear plants now look to China and Russia as suppliers.

There is a strong case for democracies seeking to replace ageing nuclear plants with non-intermittent equivalents to join the importers. If Chinese reactors are designed in the knowledge that they will have to meet with the approval of independent regulators the world will be a safer place. At the same time, in boosting energy R&D to tackle the climate crisis, Western governments should be sure to give nuclear its fair share. There are real attractions to some new approaches, notably smaller reactors with lower unit costs: in platoons they can replace old plants; singly they can add incremental capacity where needed. They might perhaps be used to retrofit old fossil-fuel plants.

It's critical

Nuclear power has drawbacks the size of a tsunami. But with Chinese plants being built today that will not be decommissioned until the 22nd century, it cannot simply be wished away. What is more, it has a vital role to play in the fight for a stable climate. The lesson of Fukushima is not to eschew nuclear power, it is to use it wisely. ■





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Alternative energies

As your briefing on decarbonising America noted, New Mexico's economy depends on robust oil-and-gas production in the Permian basin that was revitalised by fracking a decade ago ("The switch", February 20th). New Mexicans, however, have been interested in innovation and energy diversification for quite a lot longer than the article implied. America's only uranium-enrichment facility is in the state. It is one of the largest private-capital investments ever made in New Mexico, producing around a third of the nuclear fuel required to power the 94 nuclear reactors that generate a fifth of America's electricity and 55% of its carbon-free electricity.

So although New Mexico may indeed be producing 1% of America's greenhouse-gas emissions, it is also producing the fuel which generates carbon-free electricity. The technology used to process uranium is modular and can be expanded economically to meet the growing need for nuclear power that Bill Gates has recently called for.

KIRK SCHNOEBELN
President
Urenco USA
Arlington, Virginia

You did not mention efficiency. Greater end-use efficiency reduces the investment in renewables required to reach ambitious climate targets, and improves grid resiliency when generation or transmission infrastructure may otherwise be stressed. It is a huge challenge to decarbonise America's energy sector; we'll need all the solutions available to do it.

RUSSELL MEYER
Senior economist
Oracle Utilities
Los Angeles

A small-minded country

Charlemagne was right to say that Russia should be handled more firmly and decisively by the European Union (February 13th). Helmut Schmidt, Germa-

ny's chancellor from 1974 to 1982, summarised it best when he said that Russia is basically Upper Volta with rockets (now Burkina Faso). Unfortunately Russia has no systematic plans to develop its natural-resource capabilities or better the lot of its citizens, quite unlike China. And it is run by cronies.

ANDREAS BARTELS
Munich

Constitutional order

There is an interesting story behind the First Amendment of the American constitution, which Donald Trump's defence made much of during his impeachment trial ("Marred but at largo", February 20th). The First Amendment protecting free speech, among other rights, is a combination of what was originally intended to be the third and fourth of 19 amendments that James Madison introduced in June 1789 as the Bill of Rights. They were combined into a Third Amendment, and became the First only after the two that came before it failed to get enough support in the states for ratification.

Madison gave numerical priority to the anti-establishment and exercise of religion clauses, and originally put freedoms of speech, press and assembly into a separate subsequent amendment. Mr Trump's team expounded free speech as not being an "accident", that it is the "very first liberty in the first article of the Bill of Rights...the most important one". Actually, it is first because of exactly that, an accident of history.

STEVEN RESKE
Minnetonka, Minnesota

Expanding diversity

It is difficult to share Bagehot's giddy excitement about diversity within the Conservative Party (January 30th). The black and brown faces in the cabinet share, for the most part, the same social, educational and professional backgrounds as their white colleagues. Although this is progress, it is picking at the

low-hanging fruit of diversity. As a black Briton I think that many of the black Tories mentioned in the article hold views that differ from the minority communities we are told they represent. Indeed, many have been missing in action on issues that resonate with black Britons, such as policing and criminal justice, the Windrush scandal, Black Lives Matter and covid-19. Perhaps having more black and brown people in government gives comfort to Conservatives, but they are neither a source of excitement nor inspiration for the black community.

If you want "diversity" you need a more meaningful representation of minority peoples.

KAFUI TAY
London

Who watches the sunset?

You asked how should economists think about biodiversity (Free exchange, February 6th)? One policy that I struggled with while working at Britain's Department for the Environment, Food and Rural Affairs (DEFRA) was placing a value on those areas where the exact economic benefits to humans is difficult to quantify. What, for example, is the economic value to humans of the view of an unsullied beach at sunset, or of the continued existence of pandas, or of the re-introduction of beavers or wolves in areas where they are extinct? The value of a sunset can, to some extent, be estimated from house-price differentials, but we struggle with the other examples; if we cannot put a numerical value on something, it often gets overlooked.

The British government's report on the economics of biodiversity, produced by Partha Dasgupta, is a vital step towards making the case for environmental protection in the most effective way possible. But we must be careful not to focus on those areas that we can easily quantify at the expense of those that we cannot.

THOMAS ROBERTSON
Former economist at DEFRA
Oxford

Greetings

I enjoyed Johnson's article on foreign expressions that are absent from English (February 13th). The Italians have an expression that is used to wish good luck: *In bocca al lupo* (Into the wolf's mouth). It was an ancient morning wish to hunters before their departure. The correct answer is: *Crepi!* (Let him die!)

ANTONELLA SPRING
Lisbon

One expression I often wish we had in English is the Turkish *kolay gelsin*, basically meaning "may it come easy for you". It is said as one person passes another who is working, for instance to a housekeeper at a hotel. I have especially missed being able to say something like that during the past year to the people who have had to stay on the job, while the rest of us kept our distance.

BETHANY MENDENHALL
Irvine, California

My favourite foreign expression is *Schadenfreude*. I have lived in London for 30 years. The lack of an English equivalent shows the underlying compassionate nature of the natives of my adopted home. Being Hungarian I can attest to the opposite in my homeland.

ZSUZSANNA SCHIFF
London

Having lunch with a French friend one day, I remarked that we didn't have an equivalent to *bon appétit*. His reply was that the English had no expectations when it came to food.

JEFF HENDY
El Dorado Hills, California

A French colleague I dined with used to say "*Bon appétit*, or as they say in English, good luck!"

BARRY DOHERTY
Dublin

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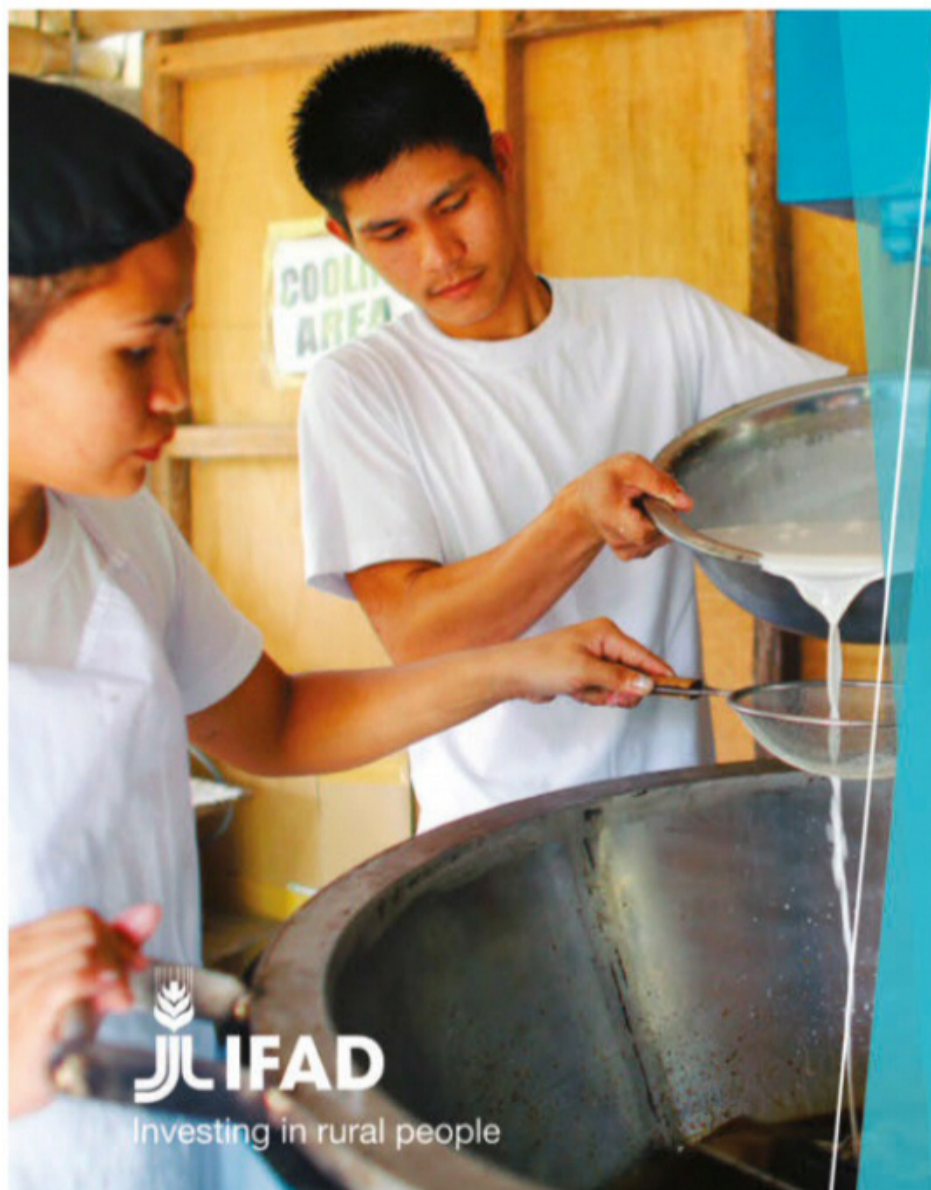
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Shelter from the storm

The pandemic has transformed the welfare state. Which changes will endure?

“**S**UDDENLY EVERYTHING drops out from under you,” says Will, a 30-year-old Londoner. He has had paid jobs in arts marketing since he graduated from university. The pandemic upended everything. Redundancy loomed. Rescue came in the form of the British government’s furlough scheme, without which he would be jobless and penurious. The experience has made him more supportive of the welfare state—and even of grander schemes, such as a universal basic income (UBI).

Crises, such as wars or economic collapse, reveal societies’ strengths and weaknesses, and change thinking about how they can and should be organised. The pandemic has forced a re-evaluation of the social contract, in particular how risk should be divided among individuals, employers and the state. The covid-19 fiscal stimulus packages have made even the interventions of the global financial crisis seem like minnows. The expansion of the welfare state has been the greatest in living memory. Government bail-outs of citizens, rather than banks, could mark a new chapter in its history.

At its most basic, the welfare state provides some form of social security and poverty relief. In 1990 Gosta Esping-Andersen, a political scientist, identified three models: market-oriented in Anglophone countries, where the state plays a “residual” role; family-oriented in mainland Europe, where the state and employers play a supporting role; and state-oriented for the Scandinavians, with universal protections and services. The balance between state, market and family shifts over the course of people’s lives, but most take out about as much as they put in (in any year 36% of Britons receive more than they pay in taxes, but over their lifetimes only 7% do).

When covid-19 struck and economies locked down, entire industries faced obliteration. Since the start of the pandemic countries have announced over \$13.8trn (13.5% of global GDP) in total emergency funding, more than four times the support provided during the financial crisis. Rich countries have done almost all the spending (see map on next page). Only in 1945, as Europe was rebuilt after the second world war, was government debt as a share of GDP

so high. Emerging economies have never borrowed as much.

The shape of the welfare state has been transformed, too. Established principles such as means-testing (welfare only for the poorest), social insurance (only for those who paid in) and conditionality (only for those who do something) went out of the window. Governments wrote near-blank cheques for everything from job guarantees to food. Some simply sent cash.

As the pandemic abates and economic recovery beckons, how much of this expansion will last? The shift in risk in 2020 came after decades during which risks such as living longer than expected, or being replaced by an algorithm or foreign worker, were gradually offloaded from governments and employers onto individuals. And just as a flood increases demand for flood insurance, the millions reliant on the state for the first time are demanding stronger safety-nets.

Covid-19 showed that the welfare state needed modernisation. It was born in a different social order, and to protect against different risks. Discontent was rising before the pandemic: in 2019 less than one in five people in 26 countries agreed that “the system” was working for them and half said that it was failing, according to the Edelman Trust Barometer. That governments had to respond so aggressively to covid-19 shows that the responsibility for some risks sat in the wrong place. In a new book about the social contract, Minouche Shafik, the head of the London School of

▶ Economics (LSE), predicts that “The political turmoil we observe in many countries is only a foretaste of what awaits us if we do not rethink what we owe each other.”

American social security emerged from the Great Depression. Social-insurance programmes appeared in Europe at the turn of the 20th century. But it was the second world war that led to the birth of the modern European welfare state, with universal benefits to guard against poverty and provide health care and education.

Before the war, welfare had primarily been understood as poverty relief through redistribution. But the bombs hit both rich and poor, and Europe emerged with a new appetite for something different, and larger: shock relief for everyone through insurance. Nicholas Barr of the LSE describes this as part of the “piggy bank” objective of welfare: the realisation that even if poverty were eradicated, people still need protection against shocks and periods of dependency over their lifetimes.

The post-war expansion ended with the stagnation and inflation of the 1970s. A new version of the welfare state focused on getting people into jobs. Benefits were made scarcer and stingier to discourage laziness and dependency. Work incentives were boosted. Welfare recipients were stigmatised as “scroungers” and universalism gave way to means-testing and conditionality. America replaced many cash benefits for the jobless with tax credits for the working poor. Britain renamed unemployment benefits “Jobseeker’s Allowance”. The labour market was made more flexible to entice employers to hire. With full employment, fewer people would need benefits, went the thinking.

Most countries used this second phase which started in the 1980s to reduce state intervention and shift risk back to individuals. Unions were successively weakened, and employment protections cut back still further. In the private sector the certainty

of defined-benefit pensions was replaced by the uncertainty of the defined-contribution kind. Between 2004 and 2018 the share of real income replaced by a typical-mandatory pension for a private-sector worker fell by 11% in rich countries on average. The social-housing stock as a share of total housing decreased, rent controls were trimmed and housing costs went up.

Don’t think twice

But talk of self-sufficiency ended when covid-19 struck. Governments scrambled to get the money out and ask questions later. The result was a huge increase in the number and generosity of safety-net measures. By January the International Labour Organisation counted over 1,600 social-protection policies launched since February 2020. Record numbers claimed support. In some rich countries as many as 60% of those getting help during the pandemic, including through furlough schemes, had never received welfare payments before, according to BCG, a consultancy.

The IMF estimates that by January rich economies had increased total direct spending by almost 13% of GDP, about half of it on supporting workers and households. Countries that typically spend a lot on social protection spent comparatively less on emergency funding (see chart on next page). Support for employment, such as wage subsidies or furlough schemes, was most popular in Europe (including Britain). In the OECD, a club of mostly rich countries, over one in five employees have had their job rescued by such programmes.

Governments have spent about the same on supporting households through bolstered unemployment benefits, child benefits and cash transfers. In America, which has favoured such spending over wage subsidies, the \$600 weekly increase in unemployment insurance meant two-thirds of recipients earned more on the dole in the first months of the pandemic

than they had when they were working. Claims soared: nearly 33m were made in the third week of June, compared with 2m in the last week of February, just before the pandemic struck, and 12m in the peak week of the financial crisis. In Britain the government increased universal credit, the main welfare programme before the pandemic, by £1,000 (\$1,290) a year. Some 6m people claimed it in January compared with 2.6m last February. Britain, like others, snipped some of the strings attached to such benefits and broadened eligibility.

Many also doled out cash. Donald Trump’s administration sent cheques for \$1,200 and then \$600 to most adults last year. President Joe Biden plans to distribute another \$1,400, taking the price tag of the policy to \$920bn. In Japan every citizen received ¥100,000 (\$930).

The pandemic highlighted the outmoded pattern of some welfare spending: designed to fit a mid-skilled worker of a type that has become rare, and is likely to become rarer still. It exposed the vulnerability of the growing group of labour-market outsiders, and how little job and income security many essential workers enjoy.

They say every man needs protection

Economists were already arguing for the need to plug coverage gaps, especially for the one in four workers in OECD countries in temporary work or self-employed. Over the past 20 years rich countries’ labour markets have become polarised, with growing shares of low- and high-skilled jobs and falling shares of middle-skilled (and -income) jobs. Before the pandemic hit, a higher share of people were in work than at the turn of the century, but most of the growth has been in part-time jobs. Bureaucratic, inflexible welfare systems were already showing the strain before the shock of the pandemic made changes that had seemed politically unfeasible look not just possible but necessary.

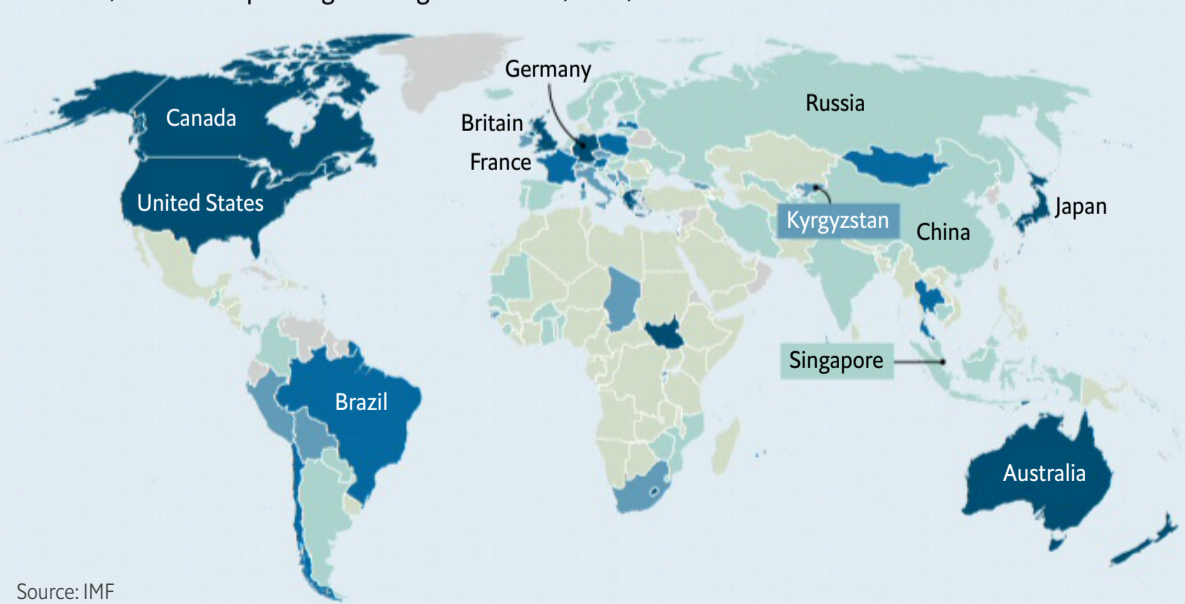
When Margaret Hope, a self-employed chef in Canada, lost all her work due to covid-19 last March, she immediately began selling her kitchen equipment. “Here we go again,” she thought, “I’ll get nothing.” After Alberta’s oil-price crash in 2014 she had received no government support and had to close up. But this time the federal rescue package covered the self-employed. An emergency monthly benefit of C\$2,000 (\$1,580) was paid to those who earned less than C\$1,000 per month between March and September. Some 8.9m Canadians received it—nearly a quarter of the population—at a cost of C\$82bn.

Other governments took similar action. America, for the first time, expanded unemployment insurance to freelancers and contractors. Several extended the coverage of sick leave. The public interest in a universal benefit had rarely been clearer. ▶

Look who’s helping

Covid-19, additional spending and forgone revenue, 2020, % of GDP

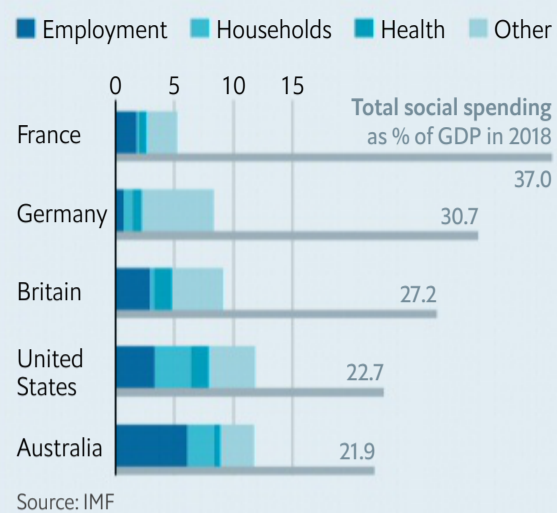
0 2.5 5.0 7.5 10.0 No data



Source: IMF

Cushioning the fall

Covid-19, additional safety-net spending
Jan-Oct 2020, as % of 2020 GDP



▶ The vulnerability of workers with family responsibilities became acutely clear when schools closed. In America one in four working women considered cutting their hours or quitting. Public support for better child-care provision is now more bipartisan. The pandemic put child-care policies on the table even in places where it had been overlooked, for example in Italy. Some governments, such as Australia's, made child care free for a time. Others, including Portugal's and Germany's, provided cash for carers and increased child benefits. Mr Biden has proposed a temporarily enhanced child tax credit (a policy which would, almost on its own, halve poverty among children). "There is total commitment...from the entire Democratic caucus to make this permanent," says Sherrod Brown, a Democratic senator from Ohio.

The pandemic also underscored the importance of speed to welfare. Analysis by McKinsey, a consultancy, suggests that the magic "troika" of reaching lots of people, quickly and with little fraud was possible only for countries with advanced financial infrastructure, meaning widespread use of digital payments, digital IDs and—crucially—relevant data, such as tax returns, linked to these IDs. Singapore, which has all three, was able to send wage subsidies to eligible employers automatically.

Other countries had to make trade-offs between speed and fraud, or between scope and successful delivery, says Anu Madgavkar of McKinsey. Ms Hope, the chef, was "gobsmacked" to receive her money within days of applying online. Most Canadians got their payments within a week. Canada decided to prioritise speed and ask questions later (it has now started asking recipients to prove their eligibility).

Technology was not the only deciding factor in governments' ability to act with agility; simplifying the claims process proved as important, for example by dropping burdensome tests on assets or assessments of partners' incomes.

Ensuring that social spending is flexible is crucial, not just in a pandemic. When people know there is a safety-net, they may take healthy risks, such as starting a business. If it takes new applicants for out-of-work benefits months to get their money, they may be less keen on jobs that they might later lose. Distributing cash quickly in a crisis can help smooth consumption and lessen economic contraction.

Swift action has had remarkable success. Households' incomes in rich countries were largely protected even as GDP tumbled. In April, as the unemployment rate more than tripled, American real disposable income rose by 15.6%, a record. History suggests that increases in social spending rarely disappear entirely after a crisis. The question is what will stick.

Many countries seem to have passed the peak of their emergency social spending, as economies begin to recover. Across the OECD take-up of furlough schemes has fallen, from a high of 20% of employed people in May to around 5% in September. In America claims for unemployment benefits have almost halved since their peak, and the unemployment rate dropped from 14.8% in April to 6.3% in January.

Some support programmes, such as Britain's furlough schemes, have been extended. Others are being wound down. Australia is no longer providing child care free, and its "coronavirus supplement" will end this month (to be replaced with a smaller permanent increase in jobseeker's allowance of A\$25 (\$20) per week).

Such changes are driven primarily by fiscal necessity. Government debt is piling up to record highs. Tax revenues have fallen. Governments worry that overgenerous benefits are themselves a disincentive to taking paid work and can lock people into a

"welfare trap".

And yet even before covid-19, public opinion had been moving in favour of the state, and employers, taking more of the risk away from individuals. In 1987, 30% of Britons thought welfare recipients did not deserve benefits; by 2019 this had fallen to 15%, according to the annual Social Attitudes survey. The proportion who think benefits are too high and discourage work has fallen from 59% in 2015 to 35%. In America only 56% of people surveyed in 2009 by Pew, a pollster, were in favour of the Obama administration's \$800bn stimulus package, whereas 88% supported the Trump administration's \$2trn covid-19 package last year. "It's rather extraordinary how there's been all this spending, even sending people cash, and the public has basically accepted it," says Rachel Lipson, at Harvard University.

The pandemic seems to have shifted the mood from targeting towards universalism. Some claim that, taken to their logical conclusion, the lessons from covid-19 will lead countries to roll out UBI (see Finance section). Direct cash transfers, perhaps even universal ones, could become a standard part of governments' emergency toolkits. But no country is seriously contemplating a full-blown UBI scheme.

When the winds of change shift

More likely is a renewed appreciation of governments' role in pooling and underwriting risks, in particular those that insurers call "uninsurable". The pandemic has demonstrated the extent to which governments can smooth shocks. On the two days in April when the largest group of Americans received their stimulus cheques, spending by low-income households shot up by 26 percentage points, to near pre-pandemic levels, according to research by Raj Chetty of Harvard University and colleagues. Several economists have argued that the pandemic has shown why the generosity of benefits should be pegged to the state of the economy, with welfare acting as a shock absorber when times are toughest.

A revamped welfare state could provide enough flexibility to encourage work but still step in when disaster strikes. It will need to invest in human capital. The pandemic has accelerated ongoing changes in the structure of the economy. "Buffering alone won't be enough to fight future shocks," cautions Anton Hemerijck of the European University Institute. "You have to invest in child care, in skills, in health, in people as well if you want to future-proof the welfare state." The impact of climate change, technological innovations and demographic shifts on jobs and livelihoods is hard to predict. But further social disruption is almost certain. Better preparations cannot start soon enough. ■



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The budget

A game of two halves

The chancellor has announced a big giveaway now, and hefty tax rises later

RARELY HAS supposedly bitter medicine tasted so sweet. For weeks, the Treasury has been briefing journalists that Rishi Sunak, the chancellor, was set to “level with the people” and embark on a programme of tax rises to repair the public finances. This, it turned out, was expectations management: the budget, delivered on March 3rd, was loaded with sugar. The nastier stuff has been pushed back by at least two years.

The explanation lay in the forecasts which the Office for Budget Responsibility (OBR), the government’s fiscal watchdog, publishes with the budget. A lot has changed since it released its previous set in November. A spike in covid-19 cases in December and January prompted a stringent third lockdown, which depressed expected growth further in 2021. Lower growth this year means an even larger bounce-back in 2022. The OBR now reckons that the economy will grow by 4% in 2021, down from 5.5% in the previous forecast, but then motor forward by 7.3% in 2022, the fastest rise in eight decades.

This year’s difficult start means that government schemes to keep people solvent are being extended. The Coronavirus Job Retention Scheme, under which the government pays 80% of the wages of furloughed employees, was due to end in April. It will now stay until September. Grants and cheap loans to firms have been rolled forward too, as have lower levels of value-added tax for hospitality businesses. Spending has been increased by almost £35bn (\$49bn) and taxes cut by £24bn in

the coming financial year. Taken together, these measures represent a giveaway worth some 3% of GDP.

Every budget must contain a surprise for the chancellor to unveil. The uncertainty after the Brexit referendum in 2016, followed by the pandemic, has depressed business investment. So the centrepiece of Mr Sunak’s stimulus was the “super-deeduction”, which will allow companies to set 130% of the value of new investment in plant and equipment against their taxable income for two years from April. The government is hoping that this generous tax-break will spur firms to use some of the record-high cash piles on which they are sitting to bring forward capital spending. An IMF study of such incentive schemes last year found that they tend to produce a strong response from firms by increasing the rate of return on investment.

With the economy buoyed by more fiscal support, the OBR thinks the output gap (the difference between the current level of GDP and its potential) will close more rapidly over the next couple of years than it previously believed. In other words, the cyclical recovery in the economy should proceed at a faster clip than expected.

A speedier cyclical pickup, though, will not eradicate the structural damage wrought by the pandemic. The OBR reckons that the economy will be 3% smaller in five years’ time than it would have been in a universe without a pandemic. That is bleaker than the Bank of England’s 1.75% ▶▶

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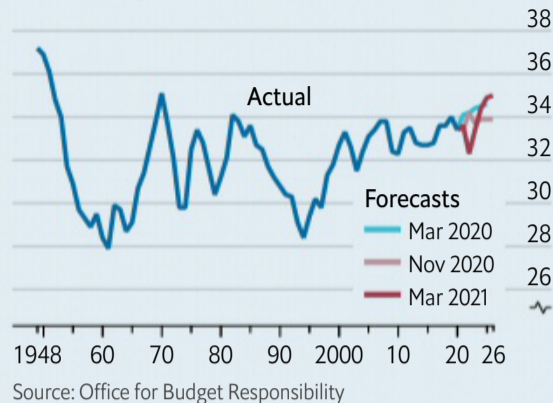
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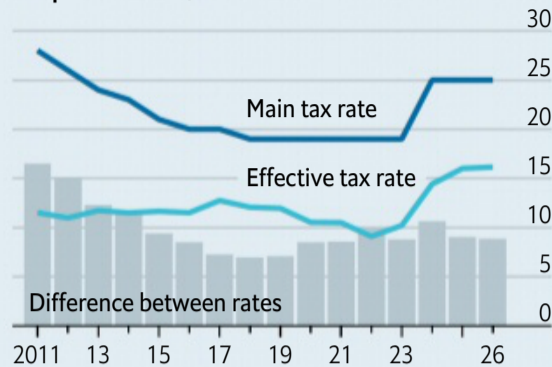
Jam today, taxes tomorrow

Britain, fiscal years ending March

Tax burden, % of nominal GDP



Corporation tax, %



estimate but broadly in line with Britain's peers. The German budgetary authorities, for example, reckon their country will take a similar hit.

Lasting economic damage will have an impact on the public finances. Although Britain is currently operating without a formal set of fiscal rules, Mr Sunak has indicated that he wants to balance the current budget while borrowing for long-term investment. Given the blow to growth, achieving that aim means adopting some combination of spending cuts and tax rises once the immediate crisis has passed.

Mr Sunak has chosen to lean heavily on taxes, undoing the reductions in both personal and business tax that George Osborne introduced a decade ago. The tax take, as a share of the overall economy, is now forecast to rise to its highest level since the late 1960s (see chart).

Some of the extra revenue will come directly from workers. From 2023 income-tax thresholds will be frozen in cash terms, increasing the tax burden as incomes grow. But most of the cash will come from a striking rise in the headline rate of corporation tax, which is set to jump from 19% to 25% by 2023. According to the OBR, corporation-tax receipts will rise to their highest share of GDP since 1990 by 2024, though Mr Sunak was keen to emphasise that only around three in ten firms are likely to face the full increase. The small companies' exemption will rise while firms will be able to carry forward up to three years of losses to reduce their bills. In effect, Mr Sunak is signalling a windfall tax on the companies that have done well during the pandemic, without calling it such.

Announcing the largest increases in corporation tax in a generation might have been expected to elicit more than a few groans from Britain's boardrooms. Business trade bodies have, however, been quick to welcome the overall budget package. No doubt that is in part because of the large giveaways over the coming two years; but it is probably also because they suspect the tax rises will never fully materialise.

One reason to doubt that corporation tax will actually shoot up after 2023 is the cliff-edge that would create. The end of the super-deduction followed by an immediate and steep hike in headline rates would lead the effective rate, inclusive of allowances, to increase by more than five percentage points between 2023 and 2025 (see chart). That would be historically unusual. Mr Sunak will be hoping that as economic activity rebounds the OBR will revise down its view of the lasting hit from covid-19, and as the fiscal targets become easier to meet the mooted tax rises can then be scaled back. "It's smart politics," says a business leader. "If you say you are putting up tax by 6% and then only put it up by 3% everyone is grateful instead of horrified."

Mr Sunak has announced a plan to balance the budget because that's what Conservatives do. But it is far enough away that he has plenty of space for more giveaways in the future if the economy performs better than expected. ■

Scottish politics

A funny smell in Holyrood

The first minister is on the rack, but likely to survive

"THERE'S something going on. I can't prove it, but I can smell it," said Gordon Jackson QC, as he concluded the defence of Alex Salmond last March. Mr Salmond, the former first minister of Scotland, was on trial for 13 charges of sexual assault, including an attempted rape, against nine women. Mr Salmond, his lawyer conceded, could be a "bad boy", but the allegations of criminality were the product of a "murky, murky world" of Holyrood intrigue. Mr Salmond was cleared by the jury. The previous year, he had overturned an internal Scottish government probe into

claims by two women, after a judge found procedural errors left the process "tainted by apparent bias".

The smell lingers, and the proof remains elusive. On March 3rd Nicola Sturgeon, Mr Salmond's successor, gave evidence for eight hours to a committee of the Scottish government investigating her role in the affair. She faces three broad charges. The most serious, and least credible, is Mr Salmond's claim that he is a victim of a "malicious and concerted" plot by Ms Sturgeon's inner circle to send him to jail. The others are more damaging: that she misled the Scottish Parliament about her knowledge of the allegations against Mr Salmond, and that her government wasted public money by pushing on with contesting the judicial review when her lawyers regarded the case as unwinnable.

The inquiry has revealed flaws in Ms Sturgeon's government, including a dangerous blurring of the lines between party business, government work and the prosecutor's office. But her performance revealed the rhetorical dexterity that has kept her at the top of Scottish politics since becoming Mr Salmond's deputy in 2004.

She apologised profusely for the original botched probe. The legal advice on whether to push on was more nuanced than had been portrayed, she said. An out-of-court settlement, for which Mr Salmond had begged in text messages, would have been improper. She shared lawmakers' frustration at delays in producing documents and wished "her memory was more vivid" of certain meetings. The suggestion of collusion with the police was "stretching the credulity of the most devout conspiracy theorists". But this was about him, not her. Mr Salmond was a "man I had revered since I was 20 years old". He had confessed to "deeply inappropriate behaviour". She regretted that he had no regrets.

The Scottish Conservatives are planning a vote of no confidence in Ms Sturgeon, although no date is yet fixed. She is likely to survive. Her Scottish National Party is on track for a majority in the Scottish election in May, which it hopes will open the door to an independence referendum; even her bitterest internal critics will not jeopardise the "project". The outcome may hinge on the votes of pro-independence Green MSPs, who under Scotland's two-vote electoral system risk being punished if they bring Ms Sturgeon down.

Focus groups are said to be sympathetic to her defence: that in the wake of the #MeToo movement, when complaints were raised, her government threw the book at her former mentor. "As first minister I refused to follow the age-old pattern of allowing a powerful man to use his status and connections to get what he wants," she said. Her main regret, really, was that its aim was off. ■

Aristofascists

Nazi parties

A long-dead politician raises eyebrows from beyond the grave

IN AUGUST 1936 Henry “Chips” Channon and his wife, Lady Honor Guinness, went on an official visit to the Berlin Olympic games along with a bunch of other British grandees. They had a simply wonderful time. They didn’t pull off the ultimate social coup of having dinner with Hitler—the closest they got to the Führer was when he visited the Olympic stadium and “one felt as if one was in the presence of some semi-divine creature”. But the rest of the Nazi elite went out of their way to entertain the visiting Britons.

Hermann Göring was “flirtatious”, “gay” and “charming”. Frau Göring was “tall”, “handsome” and “nearly naked”. The Ribbentrops’ party lent “dignity to the new regime”. Just as thrilling was the spectacle of daily life. Everyone kept raising their arms and saying “Heil Hitler!” in a thoroughly captivating manner. And what about the rumours of terrible things going on in labour camps? Being a responsible MP Chips took a trip to one such camp and was impressed by what he saw. It looked “tidy, even gay”. The purpose of the camps was to wipe out “class feeling”—not something Chips was normally in favour of getting rid of—and such feeling “has become practically non-existent in Germany”. Chips concluded that “England could learn many a lesson from Nazi Germany”.

These vignettes are all taken from the first of what promises to be three volumes of the diaries of Channon, a rich American who climbed the heights of British society in the 1920s and 1930s and also became a Tory MP. The diaries were first published in 1967 in heavily redacted form: many of the subjects of Chips’s indiscretions were still alive and able to sue. Simon Heffer, a journalist and historian, has taken advantage of the passage of time to produce an unexpurgated edition.

The diaries do more than merely titillate. They demonstrate just how many members of the British upper classes were either infatuated with Hitler or at least regarded him as a useful bulwark against Bolshevism. In one entry, Chips described a visit by his uncle-by-marriage, Lord Halifax, a Tory grandee, to Germany to go fox-hunting with the leading Nazis. “He liked all the Nazi leaders, even Goebbels!...He thinks the regime fantastic, perhaps too fantastic to take seriously. But he is v glad that he went and thinks nothing but good can come of it”. (Halifax almost messed up

Refurbishing Number 10

Grand designs

Carrie Symonds may struggle to spruce up the prime ministerial quarters

ON FEBRUARY 14th 1962, the American people fell in love with the White House. Jackie Kennedy, with some help from CBS News, guided 56m of them through her renovations. The tour made such good television that the first lady won an Emmy; and, as Mrs Kennedy intended, the smartened-up White House came to embody the grandeur of American democracy.

Carrie Symonds, Boris Johnson’s fiancée, may have a harder time getting the British public to buy into her plan for sprucing up the prime ministerial quarters in Downing Street. According to a profile in *Tatler* magazine, she wants to get rid of the “John Lewis furniture nightmare”—a dangerous reference to the department store that is a mecca to the British middle classes—and replace it with something more upmarket. The

Daily Mail reports that the plan is to pay for the refurbishment through a privately funded charity.

The plan would offer a solution to a particular problem. Number 10 is a venue for hosting world leaders but prime ministers get only £30,000 a year from the public purse for redecorations, and a parliamentary expenses scandal over claims for duck-houses and moat-cleaning 12 years ago means that Britons are hawk-eyed when it comes to their politicians’ expenses. Angela Rayner, Labour’s deputy leader, was derided this week when it emerged she had the audacity to claim expenses for Apple AirPods and an iPad. Britons would rather their prime ministers lived in a hovel and their MPs communicate by carrier pigeon than pay for such extravagances as curtains and computers from the public purse.

An alternative would be for Mr Johnson to follow the example of Barack Obama and Donald Trump, who reportedly paid for \$1.5m and \$1.75m of refurbishments respectively out of their own pockets. That is unlikely to happen. Mr Johnson’s salary, at £160,000, is modest for a world leader, and with a couple of divorces behind him and at least six children, he has a lot of mouths to feed. In the year before he took the current job he earned £829,255, mostly from writing. He had a contract for a book on Shakespeare, which was due to be published last April, four years late; but even the famously productive prime minister has presumably had little time recently to devote to the Bard. Mr Johnson’s publishers are evidently taking a realistic view of his attitude to deadlines, for Amazon now gives its publication date as 2035.



Can Carrie do a Jackie?

the occasion by mistaking Hitler for a footman.) The diaries also provide yet more evidence of the vital role Winston Churchill played in saving Britain from the pro-Hitler sympathies of the upper classes and the cynical calculations of appeasing politicians. “That...farceur would stir up trouble anywhere”, Chips wrote, “luckily for England and the peace of Europe he has no following whatsoever in the House [of Commons]”.

It is becoming fashionable on the left to dismiss Churchill as a racist. A vandal spray-painted the word on his statue in Parliament Square. During a recent discussion on “Churchill and race” held in, of all

places, Churchill College, Cambridge, panellists competed to denounce him as a racist, white supremacist and eugenicist. Churchill certainly said some repugnant things about race. But by the standards of his time he was relatively moderate: he was much less enthusiastic about eugenics, for example, than many heroes of the left such as Sidney and Beatrice Webb, H.G. Wells, George Bernard Shaw and Harold Laski. He was mercifully free of the common vice of anti-Semitism. And as Channon’s diaries make clear he led the battle against the worst racist in history at a time when other members of his party and class thought labour camps wonderful innovations. ■

Labour in Scotland

Stopping the rot

Why the future of Britain rests on reviving the Scottish Labour Party

NO PERCH OFFERS an insight into the health of a society like a dentist's stool. As a young practitioner in Paisley, an old weaving town outside Glasgow once famed for its teardrop-patterned scarves, Anas Sarwar would from time to time be called upon to perform "full clearances" on patients in their late teens, and fit them with dentures. The problem was methadone, a heroin substitute prescribed to addicts which is both acidic and sticky "and would pretty much fry the dentition". The regional health board has the highest drug death rate in Scotland, which in turn has the highest in Europe.

Alleviating such misery was the historic mission of the Labour Party in Scotland, which Mr Sarwar was elected to lead on February 27th. Towns like Paisley were its firmest strongholds, reliably returning Labour MPs since the war. At its zenith 20 years ago it ran Britain. Scots filled the Cabinet, in the form of Gordon Brown, Robin Cook, John Reid and Alistair Darling, and the ranks of advisers. In 1999, the party created Scotland's devolved government, and then ran it. It was downhill from there. In 2007, the Scottish National Party took power in Edinburgh. In the 2015 general election, Labour was swept away in a nationalist surge, losing 40 of its 41 Westminster seats. Among them was Mr Sarwar's in Glasgow Central, a seat previously held for 13 years by his father Mohammad (who now serves as Governor of Punjab, Pakistan's most populous province). The party is now third in the Scottish Parliament, behind the Tories.

The biggest problem for Mr Sarwar, Labour's seventh full-time leader in Scotland



Sarwar gets to the root of the problem

since 2007, is the constitutional cleavage. The independence referendum of 2014, in which Labour campaigned to keep the United Kingdom together, was a centrifuge. The nationalist vote has consolidated behind the SNP, and unionists behind Tories. Labour bled at both ends, just as the party split over Brexit in the rest of Britain.

A senior Tory compares Mr Sarwar favourably to Ruth Davidson, who revived the Scottish Conservatives. Like Sir Keir Starmer's election to Labour's leadership last year, it is a tack to the centre following the lacklustre tenure of Richard Leonard, who fired and then rehired Mr Sarwar to the shadow cabinet. "We didn't join the Labour Party to be a protest movement," says Mr Sarwar. An exodus of disgruntled Corbynistas helped him win.

Mr Sarwar's first big test comes in the elections to the Scottish Parliament in May. Scottish voters say the constitution is the most important factor in determining their vote, before covid-19. "They are now polarised in their party choice between independents versus non-independents in a way they've not previously been to anything like the same extent in Scottish politics," says John Curtice, professor of politics at the University of Strathclyde. That's a problem for a party for whom "politics is about left versus right."

Mr Sarwar, who as a dentist enjoyed soothing fearful patients, seeks a détente. "For ten years, we have had politicians who have presented binary choices to the public, and forced them to pick a side," he says. The Scottish Parliament's focus should be on the country's recovery from covid-19, rather than a struggle to split from London. Labour is toying with ideas to revive devolution, which nationalists think inadequate and Tories regard as a failed strategy

for quenching separatism. Mr Sarwar favours more powers for local authorities. Gordon Brown has called for Scotland to take a greater share of the powers previously wielded by Brussels, an overhauled House of Lords, and a new constitutional text declaring the "mission" of the UK's four nations. Reforms must be bold, for Scots have little appetite for tinkering. In a three-way referendum, most would favour either independence or no change, while fewer than one in five would settle for more financial powers for Edinburgh, according to Panelbase, a pollster.

The party brand isn't wrecked and can be saved, for Scottish Labour is the preferred second-choice of both Conservatives and nationalists. Whether Mr Sarwar succeeds may well determine the future of Britain. The party's weakness produces a brutal feedback loop. If Scottish Labour cannot recover because of constitutional polarisation, it will be near-impossible for the Labour Party to win a majority in Britain. The Conservatives will continue to spook English voters with the prospect of a rickety Labour-SNP coalition, cementing their dominance south of the border. (In 2019, they ran ads featuring a tiny Jeremy Corbyn in Ms Sturgeon's top pocket.) The SNP can continue to tell left-leaning Scots that the only alternative to perpetual Tory rule is independence. Conservatives know that the stalemate which has profited them handsomely is eroding the union. For it to survive, they must lose, now and again. ■

Unlucky students

Swindled?

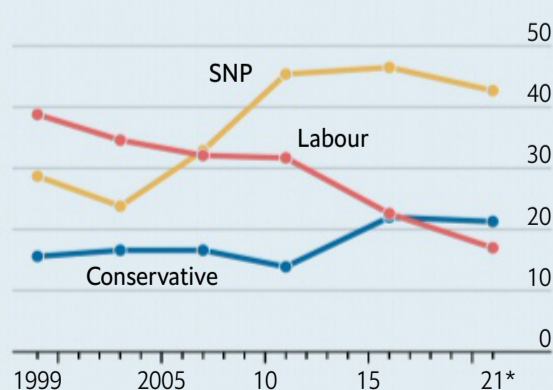
High fees and living away from home are a bad combination in a pandemic

OVER THE past year rent strikes have swept British universities, and even a pandemic hasn't stopped the finest traditions of student protest. A building has been occupied, barricades stormed and manifestos drawn up. The short-term aim is "a few quid in a student's pocket," campaigners say, with many currently paying to rent empty dorms. The grander aim, though, is "resistance to marketisation of both universities and, more importantly for the working classes, housing."

Left-wing activists instinctively dislike the market; many other students simply feel they get a rough deal from it. On March 8th a small number will return to in-person teaching, with more to follow after the Easter break, a year after the disruption started. They are not a happy bunch. A recent survey by Yonder, a pollster formerly ▶▶

Squeezing out Labour

Scottish parliament elections, vote share, %



*Forecast based on polling carried out in February 2021. Three-poll average
Sources: UK Parliament; ComRes; Ipsos MORI; Survation

known as Populus, finds that just 36% of British students believe they get value for money. Of the 21 countries polled on behalf of Chegg, an ed-tech firm, only South Koreans feel they get a worse deal.

In Scotland tuition is free and in Northern Ireland it is heavily subsidised but elsewhere students face some of the highest sticker prices in the world. Most of those in England pay £9,250 (\$12,900) a year for tuition. Since four-fifths of British students leave home to study, their living costs are high, too. Many do not foresee a strong return on their investment. Graduates in Britain enjoy relatively low wage premiums (see chart), and the Institute for Fiscal Studies, a think-tank, has found that a fifth of them would have been richer ten years after leaving university had they skipped the experience altogether.

In reality, this is more of a problem for the state than those at university. Students receive generous loans to cover tuition, which are not repaid until the recipient earns more than £26,575, with any remaining sum written off after 30 years—something which will soon become costlier still if student numbers rise as suggested by demographic trends. At the moment, only a fifth are expected to repay in full. Yet perceptions matter and graduates still face what are, in effect, higher tax rates, which can endure for most of their careers.

The pandemic has left students paying just as much for a worse time. Some have wrangled a rent cut from universities, aided by strikes. Private landlords have been less forthcoming. When it comes to fees, the government is “ducking the problem,” says a vice-chancellor. It shows little sign of giving into appeals for refunds; simply directing students to an independent adjudicator if they feel their teaching hasn’t been up to scratch. Nor are universities willing to take the financial hit refunds imply—after all, nearly half of their income comes from student fees. ■

Levelling up

The Tees party

DARLINGTON

The chancellor smiles on the north-east of England

BEN HOUCHEEN, the Tees Valley Mayor, is a persuasive man. For more than a year he lobbied the chancellor of the exchequer to create a low-tax “freeport” in his bailiwick and move lots of civil servants there. On the eve of Rishi Sunak’s budget speech he ratcheted up the rhetoric. “The question is,” he wrote in the *Northern Echo*, a local newspaper, “does Rishi have the strength to stand up to the Whitehall mandarins that have held our region back for so long?”

The answer is yes. On March 3rd Mr Sunak announced that many civil servants from business-oriented departments will move to a new campus in Darlington, west of Teesside. Mr Houchen will get his freeport—a zone where normal customs rules and tariffs are suspended. The mayor (a Conservative like the chancellor, who faces re-election in May) got everything he asked for. But what is good for Mr Houchen is less good for Britain.

Moving civil servants to an area tends to boost its economy. Giulia Faggio, an economist at City, University of London, estimates that a dispersal programme under the last Labour government created 11 private-sector jobs for every ten public-sector workers who arrived in an area. But the effect is localised. Private-sector employment swells in a small ring around the relocated civil servants and diminishes slightly a few miles away, as local businesses rush for the honeypot.

Darlington, which is already better-off than nearby towns and cities such as Hartlepool, Middlesbrough and Redcar, seems an odd place to favour. In 2018 its gross value-added per head (a measure of output) was 92% of the British average, compared with 72% for the north-east region as a whole. “It’s thriving already,” says Chris Hunter, the chief operating officer of Darlington Building Society. When not closed by covid, town-centre shops sell Farrow & Ball paint and expensive bicycles. Tess Wheeler, who used to work in the local steelworks, guesses that a middle-class Londoner posted to the town will find it “quaint”. It may owe its good fortune in part to its status as a Tory marginal; out of the 56 constituencies that will benefit from the first tranche of money from a “towns fund”, 47 are held by the Conservatives.

The civil servants may not want to move. In 2003 the Meteorological Office managed to relocate 82% of its staff from Bracknell in the Thames Valley to Exeter.

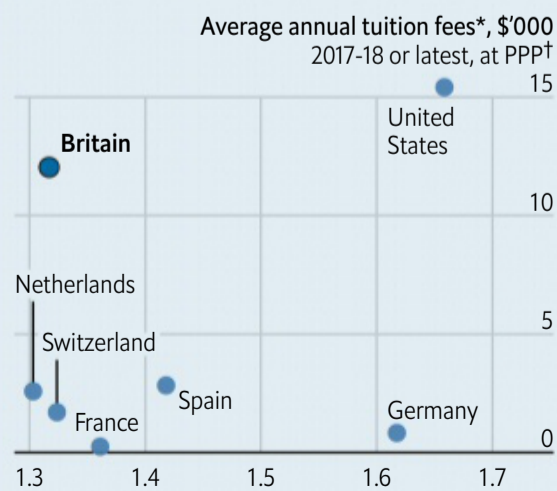
But a few years later only 10% of the Office for National Statistics’ London-based staff agreed to follow their employer to Newport in Wales. The difference was probably that the ons’s economists had plenty of other buyers for their skills, whereas the weather forecasters did not. Ominously for Darlington, Treasury staff look more like the first group.

It is especially hard to winkle senior civil servants out of London. Two-thirds of them are based there, compared with only a fifth of the civil service overall. Philip Rycroft, who was permanent secretary of the Department for Exiting the EU until 2019, says they are glued to London because the politicians are there, and expect to be able to summon them quickly. Mr Sunak might occasionally work in Darlington—his constituency is nearby. But if the next chancellor is from Cornwall, the new campus will feel like a backwater.

The Teesside freeport should fare better, although not for the advertised reasons. Imports to freeports are tariff-free, so components can be brought in and assembled into something else; tariffs are then paid when the finished goods are brought into the country. That is a big advantage in high-tariff countries, but in Britain tariffs are generally low. Julia Magntorn Garrett and Peter Holmes, economists at the University of Sussex, have looked for tariff structures that might draw a company to a British freeport. They find only one big opportunity: dog food.

Yet Mr Sunak has thrown many bones to the eight freeports that will be created in England. They will be given breaks on business rates, property taxes and national insurance contributions. That should be enough to persuade some businesses to move there—if only from other parts of Britain. “We’ve got investors lined up,” promises Mr Houchen. It is, after all, not his job to worry about the country beyond the Tees Valley. ■

Barristers and baristas



Source: OECD *Average of public and private bachelor’s degrees, weighted for attendance †Purchasing-power parity

Coming to a town near you



Bagehot | The art of the steal

The Tories are world-beaters when it comes to nicking ideas



THE LIST of great prime ministers Britain never had includes Joseph Chamberlain, Rab Butler and Michael Heseltine. It does not include Ed Miliband. He flunked the big test that the British traditionally impose on anyone who aspires to the highest office in the land—retaining your dignity while eating a bacon sandwich. The one election campaign he fought as leader, in 2015, was a double disaster for his party: David Cameron won with a solid majority and a dejected Labour Party turned to Jeremy Corbyn for solace. Yet when it comes to public policy Mr Miliband continues to exercise considerable influence. We live in the age of Miliband more than we live in the age of Cameron or Corbyn.

In the budget on March 3rd Rishi Sunak, the chancellor, stole three of Mr Miliband's ideas: gradually raising the corporation tax rate from 19% of profits to 25%, opening a national infrastructure bank in the provinces and encouraging corporate investment using tax incentives. This is not the first time Mr Sunak has followed Mr Miliband's advice. He has already rewritten Treasury rules on the grounds that their narrow definition of costs and benefits favours investment in London.

The chancellor is only the latest in a succession of Tory smash-and-grab artists. Theresa May capped energy prices, clamped down on high-interest loans, tightened labour regulations and even flirted with the idea of putting workers on boards. Boris Johnson raised taxes on and restricted advertising of unhealthy food and drink, and renationalised Northern Rail; all policies that, as a right-wing newspaper columnist, he would have derided.

There is nothing unusual about politicians lifting ideas from other parties. Benjamin Disraeli's winning formula was to find where the liberals were bathing and steal their clothes. He defined the ideal government as "Tory men and Whig measures". Winston Churchill and Harold Macmillan repeated the trick by consolidating Labour's welfare state; Tony Blair and Gordon Brown did the same with Margaret Thatcher's free-market reforms. It is not the stealing that is interesting, but the choice of ideas and the dexterity with which the trick is performed.

The theft of Mr Miliband's ideas is evidence of a leftward turn in British politics. Tory newspapers vilified Mr Miliband as "Red Ed" who wanted to turn Britain into the sort of left-wing utopia his

Marxist father favoured. *The Economist* advised voting against him on the ground that he was too much of a risk. Mr Cameron saw his enthusiasm for capping energy prices as proof that he was living in a "Marxist universe". Today Red Ed's Marxist deviations have magically transformed into Boris's common sense.

Mr Corbyn likes to take credit for this by insisting that he won the battle of ideas even if he lost the general election. But almost without exception the ideas that have survived from that era were generated by Mr Miliband and his leadership team. Mr Miliband is a policy wonk who, in the wake of the financial crisis, came to the conclusion that Labour needed to be bold. He surrounded himself with other wonks, notably Stewart Wood (who now sits in the House of Lords) and Torsten Bell (who now runs the Resolution Foundation, a think-tank). Their ideas initially found little purchase because the Conservatives did such a good job of blaming the financial crisis on Labour's management of the public finances. A combination of austerity fatigue and covid-19 has created an appetite for state activism.

The great theft is also proof of something that is less comforting to the soft left: the Tories are the world's most accomplished political thieves. They have not only merrily stolen economic policies from a man they dubbed a deranged Marxist but also stolen nationalist ideas from a man they vilified as a "swivel-eyed loon", Nigel Farage. They have killed off his UK Independence Party (UKIP) by embracing a Brexit that leaves Britain outside the customs union and the internal market; something Mr Farage once regarded as too extreme. And they have kept ex-UKIP voters happy by giving prominent positions to hardliners such as Priti Patel, the home secretary, and Suella Braverman, the attorney-general.

Stealing ideas from both the left and the right has allowed the Tories to adjust to a new world in which the liberal verities that were at the heart of Mr Cameron's premiership have lost their popularity. It has also allowed them to change their political coalition, losing some voters from the professional classes, but more than making up for their loss by increasing their support among the working classes, particularly in the north.

The biggest worry for the Tories is whether they have drifted too far in each direction. They are confronted with potential quarrels between the party's core voters in the prosperous south and its new recruits in the north: will stockbrokers really pay higher taxes to improve rail transport to Grimsby? They are also plagued by contradictions between, say, spending more money on infrastructure and balancing the books, which Mr Sunak suggests he regards as a sacred Tory duty. The trouble with a melange of ideas—something old, something new, something borrowed, something red—is that they pull in opposite directions.

Appropriate appropriating

But you can have worse problems in a country that is recovering from a pandemic and heading towards a period of growth. Mr Johnson does not seem to worry much about logical contradictions: he would happily build a blue-red-green coalition so long as it kept him in power. And Mr Sunak is less concerned than he pretends to be: though he hints that he would love to return to the Conservative low-tax, small-state orthodoxy, he is happy to cast aside ideology for the time being. The party that really suffers from the Tories' theft is Labour. It's hard to decry everything a government does when it is implementing your ideas. The brilliance of the trick the Tories have pulled off is that it leaves Labour with nowhere to go. ■



EU border policy

New kings of the wild frontier

Frontex, the EU's border force, swells in size and runs into trouble

FOR MOST of its history, the European Union commanded no troops. It was not that sort of outfit. The idea of gun-toting Euro-soldiers was more a Eurosceptic bogeyman than a serious scheme. Yet on January 11th the bloc tweeted proudly that “[f]or the first time, the European Union has its own uniformed service”. A video, set to rousing music, showed a blue-clad, side-capped guard with the insignia not of any member state, but of the star-circled flag of Europe—a member of the new standing corps of the European Border and Coast Guard Agency, more commonly known as Frontex. But if the agency’s rise exemplifies the union’s march towards something resembling a state, it also illustrates how unsteady, and occasionally ugly, that advance may be.

When the idea of a joint border force was first mooted around the turn of the millennium, EU member states balked at the idea. Many had just abolished their national currencies and adopted the euro; pooling yet more sovereignty in a highly sensitive area was a step too far. Frontex eventually came into being in 2004, with a

tiny budget and meagre staff, after a surge of irregular migration into the Canary Islands. But it was the migration crisis of 2015 that would transform its fortunes.

Politicians, desperate to shore up their borders, shovelled money and power at Frontex. Its budget leapt from under €100m (\$123m) in 2014 to €280m by 2017, reaching almost €400m last year. Under the EU’s budget for 2022-29, Frontex is due to get €5.6bn for the seven-year period—half of what it originally hoped for, but a tidy sum nonetheless. The agency has also been given the right to recruit personnel and buy equipment directly, rather than borrowing both from member states. Its

standing corps is on track to grow to 6,500 staff this year, with the aim of reaching 10,000 by 2027.

Its existing guards have already fanned out across Europe’s land and sea borders, where their job is largely to reinforce and support national border forces. But they have also ventured farther afield. Frontex personnel have deployed to “pre-frontier” areas such as Albania and Montenegro, and civilian officials to Niger, Turkey, Senegal and Serbia, where they monitor migrant flows headed towards Europe.

Those without uniforms need not worry about missing out. As well as patrolling borders, Frontex is now responsible for running a new European Travel Information and Authorisation System (ETIAS), which will screen and authorise non-EU citizens entering the borderless Schengen zone without a visa, including Britons. Around 250 staff in Warsaw will eventually run the system around the clock. It also runs the European Border Surveillance System (EUROSUR), which fuses data from drones, ships, social media and the EU’s Copernicus Earth-observation satellites to build up a picture of migrant flows.

As its coffers have grown, Frontex has set its eyes on fancier kit. Last year the agency signed contracts with Airbus and Israeli Aerospace Industries, and Elbit, another Israeli firm, to buy €100m-worth of advanced drones to be based in Greece, Italy and Malta. It is also pouring money into other technology, including artificial intelligence. “I think the European Commis-

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sion sees that as a way of muscling into the sort of core defence sphere, like dual-use and border technologies," says Roderick Parkes of the German Council on Foreign Relations. "They've really got Europol in their sights," he adds, referring to the EU's law-enforcement agency.

But whereas Europol is regarded as a pocket of administrative excellence, Frontex has a more chequered reputation. On December 7th the EU's anti-fraud office, OLAF, raided the offices of Fabrice Leggeri, Frontex's director, and his *chef de cabinet* as part of a probe into misconduct, including the "pushback" (illegal deportation) of migrants. In October an investigation by Bellingcat, a digital-forensics group, and several news outlets said that Frontex vessels were either "actively involved" or present during several such efforts on the Greek-Turkish border (Frontex denies this). On January 27th Frontex said it had suspended operations in Hungary, after the EU's top court criticised that country's forcible return of migrants to Serbia.

Many of these problems are "growing pains", says Hanne Beirens of the Migration Policy Institute Europe, a think-tank. One issue is that Frontex's central administration is too small to supervise the growing number of far-flung staff and their compliance with human-rights rules. In the past, member states were partly responsible for their officers on secondment with Frontex. The new standing corps severs this national chain of accountability, says Raphael Bossong of SWP, a think-tank in Berlin. "Ultimately, the EU would directly become responsible for these executive actions, including those with potentially lethal consequences."

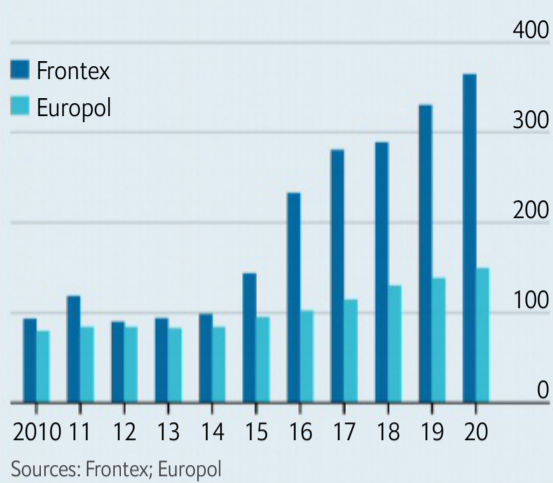
Yet more management would not solve the problem. The larger issue, says Ms Beirens, is the clash between the EU's spiralling ambitions—it has expanded Frontex's mandate thrice in the space of five years—and the agency's limited powers on the ground. If officials see abuse occurring, they have few options to stop it other than to pull out, as in Hungary. In some cases, local border forces conduct the most unsavoury activity when Frontex is not looking.

Other problems will need ironing out too. As Frontex expands, it risks drawing recruits away from the EU's existing pool of 100,000 or so border guards, leaving gaps in national forces. And the pattern of recruitment might also show up deeper faultlines. Frontex's foot soldiers are drawn from low-wage eastern and southern European countries, but its leadership comes from wealthier north-western ones "who haven't guarded a land border in the last 30 years", observes Mr Parkes.

Meanwhile, Frontex's purview is growing wider still. In December, as part of post-Brexit wrangling, Britain and Spain agreed that the border between Gibraltar

That's the way the money goes

Annual budget, €m



and Spain would be abolished, with the British territory effectively being folded into the EU's Schengen zone. Britain objected to the idea of Spanish border guards taking over ports it had controlled for 300 years. So Frontex will do the job, at least for the next several years. "There's hardly anything more controversial than who guards your borders," notes Christian Kaunert of the University of South Wales. "It's the most symbolic aspect of statehood." ■

France

An end to impunity

PARIS

Nicolas Sarkozy appeals a jail sentence for corruption

FOR MUCH of France's Fifth Republic, the modern state established by Charles de Gaulle in 1958, criminal cases against elected politicians have often failed either to reach court or to end in a conviction, let alone a prison sentence. On March 1st a Paris court took a step closer to ending an era of impunity. It found Nicolas Sarkozy, a centre-right president from 2007 to 2012, guilty of corruption and influence-peddling. He was sentenced to three years in prison, two of them suspended.

The decision has sent a shockwave through the French political class. This is the first time an ex-president has been handed an irreducible prison sentence. In 2011 Jacques Chirac, another centre-right former president, was handed a two-year suspended sentence for the misuse of public funds, dating to his time as mayor of Paris in the 1990s. Mr Sarkozy has denied all the allegations, and has appealed.

The case against him dates back to 2013. Investigators tapped his mobile phone while looking into allegations that Muammar Qaddafi, the former Libyan leader, had helped finance the French candidate's

campaign in 2007. They stumbled upon conversations between Mr Sarkozy and Thierry Herzog, then his lawyer. These exchanges, which the pair thought were protected by lawyer-client privilege, concerned separate illegal party-financing allegations then circulating. The case against Mr Sarkozy in that affair had been dropped. But, prosecutors said, he wanted information linked to other inquiries.

During these conversations, the court this week, a "corruption pact" emerged. In return for information, Mr Sarkozy offered to help secure for Gilbert Azibert, an appeals-court magistrate, a plum job in Monaco. (Mr Azibert never got the job.) The court also gave Mr Herzog and Mr Azibert prison sentences of three years each, two of them suspended. Both deny the accusations. Mr Sarkozy, the judge said, who was "the guarantor of the independence of the judiciary, used his status as former president to reward a magistrate for having served his personal interest."

Mr Sarkozy is unlikely to end up behind bars. The court said he could wear an electronic tag instead. He has in any case appealed, a process that could take many months, if not years. Christian Jacob, head of his Republicans party, called the sentencing "absolutely disproportionate". Mr Sarkozy called it a "profound injustice", and stressed that no money changed hands: even the judge said the ruling was based on a "*faisceau d'indices*" (a body of indications), not proof. Friends say that magistrates were out to bring the ex-president down. On March 17th Mr Sarkozy is due in court to face separate charges of exceeding campaign-finance caps. He denies these accusations too.

In recent years, courts have convicted a string of French politicians. This has begun to erode the sense that they are untouchable. Last year a court sentenced François Fillon, Mr Sarkozy's former prime minister and a presidential candidate, to five years in prison, three of them sus- ▶▶



An unfortunate first

► pended, for embezzlement. He is awaiting his appeal. Others include Jérôme Cahuzac, a Socialist ex-budget minister, Claude Guéant, Mr Sarkozy's former chief of staff, and Patrick Balkany, an ex-deputy from Mr Sarkozy's party and former mayor of Levallois-Perret, a Paris suburb.

In one of those twists at which the French excel, the once-hyperkinetic Mr Sarkozy has become more popular since he left office than when he was president. Despite the judicial tangles, time and defeat at the ballot box in 2012 appear to have softened opinion towards Mr Sarkozy. A recent poll, taken before the verdict, found him to be France's sixth-most-popular politician.

He continues informally to oversee matters relating to the Republicans, ahead of the presidential election in 2022. Some of those close to him suggest that, before this week, he had not given up hopes of running again.

This verdict surely puts paid to those ambitions and could open up the centre-right field, perhaps even to Michel Barnier, a former French foreign minister who ran the EU's Brexit negotiations. It may serve a broader purpose too. The second conviction of an ex-president stands as a powerful sign that French politicians are held to the same standards as ordinary citizens—even those at the very top. ■

Napoleon's bicentenary

An emperor's clothes

PARIS

Despot, genius or both? The French re-open the debate

TO SOME HE WAS a military genius, strategic mastermind and visionary leader who bequeathed to France a centralised modern administration and sense of *gloire*. To others he was a tyrant and a butcher who squandered French supremacy in Europe on the battlefield of Waterloo. Napoleon Bonaparte, who died in captivity on the British island of Saint Helena at the age of 51, has long inspired both admiration and distaste, even in France. Now, ahead of the bicentenary of his death on May 5th 1821, those rival passions have been revived.

Alexis Corbière, a deputy from Unsubmissive France, a left-wing party, declared: "It is not for the republic to celebrate its gravedigger." On the right Jean-Louis Debré, formerly head of the constitutional council, said that "overdoing it" would be "a provocation". The Black Lives Matter movement has emboldened those who reject any celebration of a leader who reintroduced slavery to the French West Indies in 1802. Nicolas Mayer-Rossignol, the Socialist mayor of Rouen, says he wants to replace the imposing bronze statue of the emperor on horseback that stands outside his Normandy town hall.

Yet the French also acknowledge that they owe much of their modern state, and its institutions, not to mention their country's aspiration to *grandeur*, to the "little Corsican". As first consul, Napoleon created the French legal code, the Bank of France, the administrative system of *préfets*, high-school *lycées*, the *légion d'honneur* and much more. In a poll in 2016 he was listed as the second-most-important Frenchman in history, after Charles de Gaulle. His red quartzite tomb in Les Invalides, lying in splendid



Divided opinions

isolation in a crypt beneath the dome, receives over a million visitors a year. This spring scores of new books are promised, says the Fondation Napoléon, as well as conferences and a big exhibition in Paris. "We have every reason to be proud of him," said Patrice Gueniffey, a historian, who considers him a historical figure on a par with Alexander the Great or Julius Caesar (both of whom also killed a lot of people).

President Emmanuel Macron has not yet shown his hand. In 2005 Jacques Chirac, a Gaullist predecessor at the Elysée Palace, refused—amid protests at the time—to commemorate the bicentenary of Napoleon's victory at Austerlitz. Talk shows have been debating what to do this year, and whether his legacy is damaging or beneficial for France. An adept of "*en même temps*", or the improbable art of reconciling opposing views, Mr Macron has his work cut out.

Armenia

After the war

YEREVAN

The army turns on its prime minister

FOR A MAN in his own army's cross-hairs, Nikol Pashinyan, the Armenian prime minister, seems unfazed. As long as the Armenian people have the final say, "there will be no coup," he told *The Economist* this week. The only way out of the crisis consuming his country, he says, leads through the ballot box and early elections.

There are no tanks on the street in Yerevan. But Mr Pashinyan is fighting for his political life. On February 25th dozens of officers, including the country's top soldier, Onik Gasparyan, demanded the prime minister's resignation, accusing him of incompetence. Mr Pashinyan called this an attempted coup, refused to step down and ordered Mr Gasparyan to do so instead. (So far, he has not.)

Tensions in Armenia have been brewing since November, when Mr Pashinyan signed an armistice with Azerbaijan, ending a war over Nagorno-Karabakh, a separatist ethnic-Armenian enclave inside Azerbaijan. More than 6,000 people died in the fighting. Armenian defences were pummeled by Turkish drones and overrun by Azerbaijani ground forces. Under the ceasefire agreement, Armenia gave up control of swathes of land which it had captured around Karabakh three decades earlier. The enclave's status remains unresolved. Some 2,000 Russian troops have been deployed there to keep the peace.

To many Armenians, persuaded by the army and the government that the fighting was going their way, the surrender came as a shock and a betrayal. Mr Pashinyan immediately came under fire. The opposition blamed him for provoking the war and losing the peace. Protesters stormed government buildings. The army (and the Kremlin) bristled after Mr Pashinyan claimed that Russia's Iskander missiles, which Armenia used at least once during the war, had turned out to be duds. He backtracked after a phone call with Russia's president, Vladimir Putin.

The protests have attracted no more than a few thousand people. But those who turn up seem to be spoiling for a fight. "Pashinyan sold out my homeland and my people," says Hrachya Abramyan, a veteran of both Karabakh wars, at a rally in front of the parliament. "If he does not resign, we will grab him by the ears and throw him out like a dog." The opposition parties have not warmed to an offer of snap elections, presumably because they continue to trail ►►

► in the polls. Instead they propose a transitional government. Some appear on the verge of endorsing an actual coup. “I don’t like the idea,” says Davit Harutyunyan, a former minister. “But if I feel that without taking the next step we risk losing the country and civil war, then definitely.”

Mr Pashinyan, a former journalist, came to power in 2018, when exasperation with decades of cronyism overflowed into mass protests, bringing down the government of Serzh Sargsyan, his predecessor. Yet the tide that propelled Mr Pashinyan into power has ebbed. In elections two years ago, he won 70% of the vote. Today only 39% of Armenians want him in

charge. He had already faced criticism for his handling of the economy and the covid-19 crisis. He has made no new friends by shrugging off the blame for the lost war.

Many see a Russian hand in the army’s move against Mr Pashinyan. Yet Russia may not want the Armenian leader gone, so much as tamed. Mr Pashinyan was once eager to loosen Armenia from Russia’s grip and to improve relations with Western powers. That is no longer possible. Hobbled from a lost war, squeezed between two old enemies and frustrated by Western inaction, Armenia now depends on Russia’s security guarantees more than ever, no matter who is in charge. ■

Alexei Navalny

Prisoner of confusion

How the Kremlin outwitted Amnesty International

ON MARCH 1ST Russian news announced that Alexei Navalny was moving to a new prison, Penal Colony No. 2, notorious for psychological torture. Two days later his lawyers found him in a different, and less ghastly, jail. Russia’s justice system likes to keep people guessing.

The Kremlin says Mr Navalny, Russia’s main opposition leader, is a common criminal, as well as being a Western agent. Its propagandists tout his (plainly bogus) fraud conviction. Their struggle to convict him in the court of public opinion has received a boost from an unlikely source: Amnesty International, a global human-rights group.

On February 23rd Amnesty said it had decided to stop calling Mr Navalny a “prisoner of conscience”, a term first popular-

ised by Amnesty itself. The reason given was that he had made some xenophobic comments nearly 15 years ago. Amnesty had not planned to publicise this decision, but an internal memo had leaked.

Kremlin megaphones went wild. Day after day they quoted Amnesty’s verdict that Mr Navalny’s comments constituted “advocacy of hatred”. “I very much understand Amnesty International which talks about hatred from Navalny’s side,” crowed Dmitry Kiselev, Mr Putin’s operative propagandist-in-chief. The head of RT, a state broadcaster, called Mr Navalny a Nazi.

This propaganda coup was made easier by a shift in philosophy at Amnesty. In 1961 Peter Benenson, the group’s founder, defined a “prisoner of conscience” as anyone who is locked up for expressing an opinion

“which does not advocate or condone personal violence”. For decades, this definition worked well. Amnesty’s campaigns helped bring about the release of legions of dissidents, including many in the old Soviet Union. But a new generation of activists decided that it was not enough to eschew violence. Since 1995, to merit the label “prisoner of conscience”, a dissident must also not have used hateful language.

Two videos Mr Navalny made, in 2007 and 2011, failed that test. At the time he was trying to build a broad coalition of liberals and nationalists to oppose Mr Putin. To this end, he sought to persuade patriotic voters not to back violent ultra-nationalists, who were then on the rise. In one video he condemned physical attacks on illegal immigrants, and said Russia should deport them instead. In another, he referred to Islamist militants as “cockroaches”.

Mr Navalny has long ago publicly expressed regret for using disparaging language about other ethnic groups, but has not specifically disavowed the videos. His activism now consists largely of pointing out how corrupt the Putin regime is. This rattles the Kremlin, which is why it tried to assassinate him last year. It is also why its propagandists worked so hard, after Amnesty named Mr Navalny a prisoner of conscience in January, to persuade the group that he isn’t.

Amnesty was flooded by almost identical complaints about Mr Navalny from “concerned citizens”. Many cited a Twitter thread by Katya Kazbek, a freelancer for RT, highlighting the old videos and calling Mr Navalny “an avowed racist”. The complainants urged Amnesty to abide by its own rules and strike Mr Navalny off its list of prisoners of conscience.

It did—and, by doing so, raised questions about those rules. The old definition of a prisoner of conscience was clear: a dissident who neither commits nor advocates violence. The new one is fuzzy. What counts as “hate speech” changes rapidly, and varies from place to place and listener to listener. If Amnesty disqualifies anyone who has ever said anything that is currently deemed hateful, it hands despots a powerful tool. Dig up the worst thing a dissident has ever said, and watch a Western human-rights group tie itself in knots.

Amnesty says it still considers Mr Navalny a political prisoner, even if he is not a prisoner of conscience, and calls for his release. The distinction is lost on many. Boris Akunin, a novelist, wrote to Amnesty: “Instead of protecting a man who was first almost killed and then unjustly imprisoned by a dictatorship you struck him a further blow. You closed the doors of his cell even tighter, making it harder for us all to fight for the man’s freedom. By adhering to the letter of your protocol you failed the spirit of your mission.” ■



Unconscionable



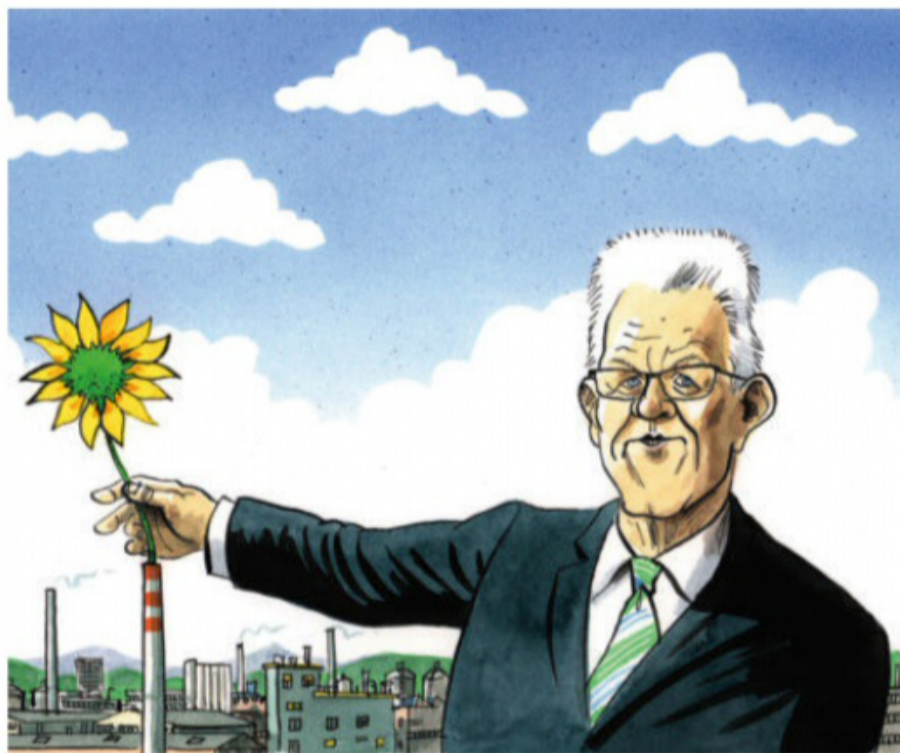
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Charlemagne | A Swabian success story

How Germany's Greens conquered the country's industrial heartland



WINFRIED KRETSCHMANN has a strong claim to be the world's most powerful Green politician. True, Greens occupy a few junior ministries in places such as Austria and New Zealand. But Mr Kretschmann is the undisputed ruler of the state of Baden-Württemberg, an industrial powerhouse in Germany's south-west that, with 11m people, is bigger than most EU countries. Ten years ago, voters spooked by the Fukushima nuclear accident and sick of decades of rule under the conservative Christian Democrats (CDU) doubled the Greens' vote, elevating them to power at the head of a left-wing coalition. Even Mr Kretschmann was surprised. Yet he handily secured re-election in 2016, and may well repeat the feat at Baden-Württemberg's election on March 14th. How he pulled it off carries lessons for the rest of the country, and perhaps beyond.

After a brief flirtation with revolutionary communism at university, by 1980 Mr Kretschmann had found his voice on the moderate "Realo" wing of the newly formed German Green Party. For years he nourished a small but growing audience for his message, articulated in the state legislature, that sustainability and other green topics ought to be combined with innovation and wealth creation. This put him "way ahead of his time", says Danyal Bayaz, a Green MP from Baden-Württemberg.

Pro-business centrism is one of two pillars of Mr Kretschmann's appeal today. Happy to label himself a "conservative", he emphasises that climate protection must go hand in hand with economic growth, and readily slaps down bad ideas emanating from his own side. "People like it," says Boris Palmer, the Green mayor of Tübingen, a town in Baden-Württemberg. "They don't want party soldiers, they like politicians interested in their needs." This has helped the Greens expand beyond their comfort zone, in cities such as Stuttgart and Freiburg, to former CDU voters and *Mittelstand* exporters, often in far-flung rural areas.

The second pillar is a well-crafted image that combines Mr Kretschmann's down-home style—a devoted churchgoer and nature-lover who speaks in a hokey Swabian accent—with that of the philosopher-king who peppers interviews with Hannah Arendt quotes and lets it be known he spends his summers on Aegean islands thumbing through "The Iliad". His big-tent *Politik des Gehörtwerdens*, the "politics of being heard", is an antidote to divisive

radicalism. Colleagues describe a patient leader open to fresh ideas on everything from school reform to artificial intelligence. All this gives Mr Kretschmann a statesmanlike aura that politicians from the CDU, now serving as the Greens' junior coalition partner in the state, concede is damnably hard to run against.

It is a potent combination. Mr Kretschmann has at times led national popularity polls, despite having no ambitions beyond his home state ("Whenever I'm in Berlin, I am always reminded how beautiful it is in Baden-Württemberg," he once quipped). Two-thirds of CDU voters in the state say they would vote for him directly given the chance. His popularity has inspired a mild personality cult. In a personalised campaign where the pandemic makes traditional electioneering impossible, voters are left to gaze at posters of their 72-year-old leader's kindly visage overlaid with slogans such as: "He thinks about the big picture."

Yet what do the Greens have to show for a decade in power? Mr Kretschmann's government with the CDU can boast a strong biodiversity law, and an expansion of renewable power as the atomic sort disappears. Yet "given the constraints of the coalition, you won't find so many concrete achievements," says Mr Palmer. Take the car sector, which provides around one in five jobs. Not far from the grand Villa Reitzenstein in Stuttgart in which Mr Kretschmann conducts state business lie museums devoted to Mercedes and Porsche cars, and a square called Daimlerplatz. Mr Kretschmann once said he looked forward to a time with fewer cars on Germany's roads. But he was condemned to hug the industry close.

Too close, for some. Mr Kretschmann's commitment to yanking his state's sometimes-dozy carmakers into the 21st century is genuine. Fearing that Baden-Württemberg could face a fate like Detroit's, he has chivvied carmakers to confront challenges, such as the switch to electric cars, via a seven-year "strategic dialogue" started in 2017. But results are thin. In 2020 Mr Kretschmann disappointed many by teaming up with premiers of other petrolhead states to lobby for subsidies for diesel-fuelled cars. Some young activists fed up with Mr Kretschmann's caution have formed a "Climate List" to contest the election. "The Greens have forgotten their roots," grumbles Daniel Wagner, one of its candidates.

Over the years Mr Kretschmann has clashed with his party on everything from phasing out combustion engines to deporting failed asylum-seekers. For left-leaning Greens in other states, the party's success in Baden-Württemberg can seem a mixed blessing: why seek office only to ape the conservatives? Mr Kretschmann replies that power is useless if you leave half of society behind. And as the only Green in charge of a state, he carries outsized weight in Germany's federal system. His tendency to present himself as the voice of the party in national debates irritates colleagues elsewhere. But it has also made a difference, notably in 2019 when Greens in Germany's upper house, where state representatives sit, sharpened a woefully unambitious climate-change package.

Don't scare the horses

For all the hand-wringing, Mr Kretschmann's centrism has carried the day in the national party, now firmly in the hands of Realos and gearing up to enter government after a general election in September. The habit of governing has become ingrained for the Greens, who sit in coalition in 11 of Germany's 16 states. Should they agree to serve as junior partner to the CDU at national level, as polls suggest is likely, they will have to accept painful compromises. Yet if power is no longer the dirty word it once was in some Green circles, the party has its Swabian champion to thank. ■



America and the Middle East

Exodus, chapter 41

NEW YORK

The past two American presidents thought they were too involved with the Middle East, but the Middle East refused to let them go

BARACK OBAMA tried to pivot to Asia, but the Arab Spring, Syrian civil war, Islamic State and Iran's nuclear programme kept dragging him back. For all the noise Donald Trump made about ending the "forever wars", he edged towards war with Iran. He dispatched 14,000 troops to the region and, in the end, did not much change the sprawling American military commitment there. Now, even more than his predecessors, President Joe Biden is signalling an intention to downgrade the Middle East among America's priorities.

He took so long to make his first phone call to the Israeli prime minister, Binyamin Netanyahu, that his spokeswoman, Jen Psaki, felt compelled, in response to a reporter, to declare the president meant no "intentional diss" (as though an unintended oversight might not be even more humiliating). Mr Biden finally placed the call on February 17th, almost a month after his inauguration. He waited another week to call King Salman of Saudi Arabia, just be-

fore his administration declassified a report accusing the king's son, Crown Prince Muhammad bin Salman, of approving the operation that resulted in the dismemberment of a journalist, Jamal Khashoggi.

Mr Biden, who promised during the campaign to make Saudi Arabia "the pariah that they are", disappointed many of his supporters by not punishing the crown prince. But he is not looking to further roil the Middle East by threatening America's long-standing alliances. Instead, he wants

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the allies to learn to expect a new detachment from the Americans.

Mr Biden has frozen a shipment of offensive weapons to Saudi Arabia and has also ordered a review of weapons sales to the United Arab Emirates. He has shown little interest in chasing peace between Israelis and Palestinians, a grail pursued by the past five presidents. His defence secretary, Lloyd Austin, has begun a review of American deployments that is expected to consider a shift from the Gulf. "That's a lot for leaders in the region to digest," said Martin Indyk of the Council on Foreign Relations, who was Mr Obama's special envoy to Israeli-Palestinian negotiations.

And yet it comes as little surprise, given the shift in thinking of left-leaning Middle East experts. Mr Indyk, a former ambassador to Israel who devoted much of his career to seeking peace, published an opinion article in the *Wall Street Journal* last year on which the jaded headline summarised an emerging consensus: "The Middle East Isn't Worth It Anymore".

This view holds that America's core interests in the region—protecting Saudi oil and the state of Israel—are diminishing as concerns. America still has an interest in the stability of the global oil market, but it imports more oil from Mexico than from Saudi Arabia and fracks plenty of its own. Israel, the only nuclear power in the region, is not in existential peril. Further, the ▶▶

► Middle East is now riven less by an Israeli-Arab divide than a Sunni-Shia one, with Israel lined up alongside Sunni Arab states, including Saudi Arabia, against Iran.

In the magazine *Foreign Affairs* last year, Jake Sullivan, now Mr Biden's national security adviser, and Daniel Benaim, now the deputy assistant secretary of state for Arabian Peninsula Affairs, wrote that the shift in interests did not mean America "should leave the region outright". But skilful diplomacy, they concluded, "will ultimately allow for sustained military reductions".

Yet a familiar obstacle is blocking the exit: Iran. Among Mr Biden's first orders of business—unfinished business, for many members of his foreign-policy team—is to curb Iran's nuclear programme and contend with its proxies, starting in Yemen.

The agreement to constrain Iran's programme, the Joint Comprehensive Plan of Action, was among the proudest foreign-policy achievements of the Obama administration. Mr Trump called the deal "horrible and laughable" and in 2018 he pulled out of it, reimposing sanctions which had been dropped or waived. He went on to impose further sanctions, in what he called a campaign of maximum pressure.

Even as Iran's currency collapsed and covid-19 raged, the country responded with "maximum resistance". It began enriching more uranium, and to greater purity, than allowed by the deal. It has also violated the agreed terms on its use of centrifuges. Today Iran stands closer to being able to build a nuclear bomb than it did when Mr Trump left the agreement, though it continues to insist it wants to use nuclear power only for civilian purposes.

The Biden administration has said it is willing to restart negotiations alongside the same allies. But at the end of February Iran rejected the idea of face-to-face talks with the Americans unless they commit themselves in advance to lifting some sanctions. Administration officials say Iran must comply with the agreement before they will relieve any sanctions.

Each side believes the other wants to restore the deal, and both are manoeuvring to discover which wants it more. Presidential elections in Iran in June may create some deadline pressure, since at a minimum installing a new government, which is expected to be more hard-line, would interrupt and delay any negotiations.

This argues for a busy period of diplomacy in the spring. "I've seen this movie before," said Ali Vaez, director of the Iran Project at the International Crisis Group (ICG), an NGO based in Brussels. He recalled that before the original deal each side also insisted that the other must move first. He added, "When I look at the cast of characters in this administration, I can't imagine they'd let the agreement collapse on their watch." Until recently, Mr Vaez's

boss at the ICG was Rob Malley, a veteran of Middle East negotiations under Bill Clinton and Mr Obama. Mr Malley, who also helped achieve the original agreement, is now Mr Biden's special envoy for Iran.

Shortly before Mr Malley left the ICG, it issued an unsigned report describing steps America should take to return to the deal. These include a commitment from the Biden administration to support an emergency loan from the IMF sought by Iran to cope with the pandemic, followed by a negotiated timetable for Iran to reverse its breaches of the accord. America would provide some sanctions relief each time the International Atomic Energy Agency certified that Iran had rolled back a violation, in a process that might take two to three months.

Centrifuge

Then, after a new Iranian president has taken office, America and its allies could pursue what the administration calls a "longer and stronger" follow-on agreement. Such a deal might exchange economic normalisation for long-term guarantees of the peaceful nature of Iran's nuclear programme and limits on its ballistic missiles. Though some Biden officials had argued for attempting first to strike the fuller deal, that debate appears to have been resolved in favour of the incremental approach.

Renewing nuclear diplomacy with Iran, Mr Biden's advisers believe, would create a basis for America to press for talks among regional powers to end their proxy conflicts. The Americans want to begin with Yemen, where Houthi rebels, backed by Iran, have been fighting the Saudi-backed government for seven years. Yemen weighs on the consciences of many Biden officials because of support the Obama administration gave to the Saudi-led effort.



Before I go...

The Trump administration intensified that support, and today the United Nations regards Yemen as the world's worst humanitarian crisis.

Mr Biden has appointed an envoy to push for peace in Yemen, and there are hints of progress, at least among the outside powers. The combatants themselves, however, have yet to show much interest in halting the fighting.

According to the vision of Mr Sullivan, the national security adviser, a new framework for regional powers to address their differences, together with nuclear diplomacy, would allow America to begin to pull back. The Middle East, he and Mr Benaim wrote in *Foreign Affairs*, is "the world's most dangerously under-institutionalised region", with nothing like the African Union or the Organisation of American States to police norms.

Any effective regional organisation is a long way off. If anything, would-be members seem more inclined than ever to go their own ways. The UAE last year normalised relations with Israel and last month put a spacecraft into orbit around Mars, while Egypt, preoccupied with its economic woes, has vanished from its historic leadership role. Saudi Arabia and Iran retain strong interests in preserving enmity between the United States and Iran, since the former—like the UAE and Israel—benefits from the costly protection of American forces, while the Iranian regime derives legitimacy from its standoff with the Great Satan. Add on the crisis in Yemen, the suppurating wound that is Syria, the precarity of Iraq, the assertiveness of Turkey and a building humanitarian and human-rights disaster in Ethiopia: Mr Biden will have to pay more attention than he would like to the neighborhood if America has any hope, however thin, of someday paying it less.

Or else he will have to embrace the role of ruthless realist, and walk away. His treatment of the Saudi crown prince—shaming him but not punishing him, respecting the regime but urging reform—looks like an attempt to split the difference. And already a familiar, violent pattern is asserting itself: last week America dispatched F-15 fighters to drop bombs in eastern Syria on facilities used by Iraqi militias linked to Iran, in response to rocket attacks by Iran-backed groups against Americans in Iraq. Mr Biden said he meant to warn Iran to "be careful".

American administrations find it easier to talk about shifting their attention from the Middle East than to do so in practice, says Senator Chris Murphy, a Democratic member of the Senate Foreign Relations Committee. "There's always a crisis," says Mr Murphy. "There's always something new and exciting happening in the Middle East. Whereas China's trajectory is slow and quiet and steady." ■

The Senate

Slimming tips

WASHINGTON, DC

How a \$1.9trn plan will be trimmed

IT LOOKED LIKE good timing at first. On February 27th the House of Representatives passed the maiden legislative hope of President Joe Biden, a behemoth \$1.9trn package for covid-19 relief. It was speedy because it was unimpeded by any serious bipartisan negotiating—the legislation mirrored the White House’s proposal almost exactly, with not one Republican vote to show for it. That left more than two weeks for the Senate to pass the proposal before a self-imposed March 14th deadline, when emergency federal unemployment benefits for 11m Americans from the last round of stimulus will start to expire. Unfortunately for the president, smooth-sailing legislation has a habit of getting stuck in the Senate. A brittle Democratic majority and obscure parliamentary procedures in the chamber promise a lengthier drama.

Perfect party unity among Democrats would be needed to achieve a simple majority in the Senate. (It would be an unexpected coup for Mr Biden if even a single Republican voted in favour.) For normal legislation, that would spell instant defeat because of the filibuster, a parliamentary procedure that raises the effective threshold for passage to 60 votes out of 100. To get round this, Democrats are using a special procedure known as budget reconciliation. Reconciliation is filibuster-proof—but at a high cost. Legislation must pass a strict, Talmudic standard known as the Byrd rule, which requires consulting an oracle of sorts (an unelected official called the Senate parliamentarian). This triggers a bizarre-sounding series of events: the edicts of the parliamentarian usually result in a “Byrd bath” with the purged provisions (“Byrd droppings”) unceremoniously discarded.

Already, one probable casualty of the Byrd bath is the ambition to increase the federal minimum wage to \$15 per hour. Because reconciliation is meant to apply only to budget bills, and to exclude regulatory changes with “merely incidental” effects on taxing or spending, the parliamentarian advised against including it. Some Democrats have suggested simply overruling the parliamentarian by a majority vote. “It could not be more clear that we should not be allowing these minoritarian mechanisms from a bygone era,” says Mondaire Jones, a progressive Democratic congressman from New York, who has urged Kamala Harris, the vice-president who formally

presides over the Senate, to overrule the advice. The administration, and thus by proxy Ms Harris, has looked askance at that manoeuvre in public statements.

Even aside from the maddening rules debate, the American Rescue Plan, as it is formally called, may return to the House a bit slimmer. Conservative Democrats like Senator Joe Manchin of West Virginia have suggested fat to cut: more modest unemployment benefits than proposed (\$300 in top-ups rather than \$400) and more targeted distribution of another round of stimulus cheques worth \$1,400 per adult (which currently would be given in full to Americans making less than \$75,000 per year).

The \$350bn in proposed bail-outs to state and local governments may also be shrunk, as moderate Democrats point out that state and local tax revenues did not decline nearly as much as feared. Overshadowing these intra-party negotiations between moderates and progressives is the clear precariousness of the plan. If any Senate Democrat were to withdraw support, the legislation would almost certainly collapse.

Both chambers must eventually agree on an identical text. How much moderates can remove before triggering a progressive revolt in the House is as yet unclear. So far, the left flank of Democrats has not been as obstructive as the right flank of Republicans was during their time in the majority. But the threat of only five breakaway votes in the House would be enough to threaten the bill and force negotiations. America would then have another maddening spin on the stimulus merry-go-round. ■

Esoteric radicals

Red and black

Radicals once had a special bond with China. Now only echoes of it remain

ON FEBRUARY 23RD, from a basement in Queens, New York, a little-known organisation announced that China would be receiving a special honour. “We present [the] People’s Republic of China with the H.R. 1242 Resilience Project W.E.B. Du Bois Award,” wrote the group’s president, Victor Mooney, in a letter to the Chinese ambassador to the United Nations. The award celebrates China’s donation of the Sinopharm covid-19 vaccine to African countries. “W.E.B. Du Bois is a vivid reminder that China is a brother to Africa and African-Americans,” Mr Mooney added.

In a time of strained relations between America and China, Mr Mooney’s olive branch is unusual. But then so is Mr Moo-



If you go carrying pictures

ney. He claims to be the first African-American to have rowed across the Atlantic, braving boat-slapping sharks and boat-pinning pirates (the international arbiter of such challenges, the Ocean Rowing Society, does not recognise his efforts). He is an ally of President Teodoro Obiang Nguema Mbasogo of Equatorial Guinea, Africa’s longest-serving despot. Perhaps it then says something that it is Mr Mooney alone who is trying to resurrect a long-forgotten friendship between black activists and the Chinese Communist Party (CCP). His award harks back to a time when figures such as Du Bois, to some the godfather of the civil-rights movement, looked to China to lead a Third World liberation struggle, which included black Americans. Today, however, only the faintest echoes remain.

For black radicals looking to smash racism and capitalism at home, “Red” China was once a “vision of Utopia”, says Keisha Brown of Tennessee State University. In contrast to the Soviet Union, it was an example of an independent, non-white nation, and its revolutionary leader, Chairman Mao Zedong, was an icon. Radicals rushed to go there. Langston Hughes, a poet, wrote his anti-colonial poem “Roar China!” after visiting Shanghai in 1933. Du Bois, a brilliant sociologist who became a staunch defender of Chinese communism, spent his 91st birthday lecturing at Peking University. His wife, Shirley Graham Du Bois, an activist in her own right, died in China in 1977.

A Chinese connection was also crucial to the Black Panther Party’s early successes. With a capitalist streak which might have got them purged in China during the Cultural Revolution, they bought battered copies of Mao’s “Little Red Book” in Chinatown for 20 cents each. Then, beneath the arches of Sather Gate, they sold them to Berkeley students for a dollar. “We made a ▶▶

▶ killing,” recalled one of the group’s co-founders, Bobby Seale.

Today it is black radicals in the Bay Area who are most nostalgic for what China once represented. Tyson Amir grew up in East Oakland, the son of Black Panther affiliates. He travelled to China in 2018 to follow in the footsteps of his “elders”, who raced to “beat Nixon” to China in 1971. Sanyika Bryant, another Oakland-based activist, used to keep a photo of Mao and Robert Williams, a black-defence leader, as his screensaver. (The picture also holds a darker meaning. At the start of the Cultural Revolution, Williams, dependent on the CCP for his upkeep, watched helplessly from his Beijing apartment as his sons’ teachers were marched down the street by Red Guards.) But “there’s a lot of people, especially younger organisers, who have no clue about this history,” he sighs.

Candace McKinley, an organiser in Philadelphia, is one such example. She read about Du Bois in middle school, but his Chinese connections have not influenced her activism. She cares about the “global struggle of anti-capitalism”, but scarcely thinks about China. “I don’t see it as a model, or a place I want to go,” she shrugs.

This is partly because China has changed. As authoritarian as it was under Mao, it is now capitalist (albeit with Chinese characteristics), and no longer a wellspring for revolutionary ideas. Outwardly, however, it still aspires to a revolutionary foreign policy. It continues to make overtures to Africa, such as its latest attempts at vaccine diplomacy. After the death of George Floyd in 2020, its diplomats attacked American racial discrimination and police brutality at the UN, echoing Mao’s statements in support of black Americans in 1963 and 1968. But in America such gestures have largely fallen on deaf ears. For the few who know about China, racist attacks on Africans in China and a whiff of political opportunism have undermined the solidarity message.

Zifeng Liu of Cornell University sees some evidence that, in the minds of radicals, old cold-war attachments still remain. Many are reluctant to criticise China’s treatment of the Uyghurs, for example, because, by cold-war logic, that makes you pro-American, he explains. Even Ms McKinley, although “not a supporter of the CCP”, is “sceptical” of the Hong Kong protests. She equates that movement for democracy with a movement for capitalism.

Back in New York, Mr Mooney remains confident that he is the man to revive Sino-Black relations. He hopes to travel to China once the pandemic lifts, to present his award in person. “My mother used to say, ‘Victor, you don’t need a football team to score a touchdown,’” he says. It is just as well. He will not find too many clamouring to be on his team. ■



Building in San Francisco

If I had a hammer

LOS ANGELES

It is possible to build houses cheaply in the Bay Area

THE BUILDING at 833 Bryant street in San Francisco’s trendy SoMa neighbourhood will be unusual. To start with, all the inhabitants of its 146 units will previously have been homeless. Its constituent parts will have been prefabricated, constructed miles away and fitted together on-site like puzzle pieces. Most unusually, the project will have been cheap to build, at least by Bay Area standards. A report by the Turner Centre at University of California, Berkeley found that, once completed in July, the project will cost 25% less per unit than comparable ones.

That is an achievement in California, where per-unit construction costs for supposedly affordable housing have ballooned since 2000; they are now the highest in the country. Subsidies for below-market-rate housing come with strings attached. Affordable developments that take public funds may be forced to install solar panels, contract with small businesses, or enlarge balcony spaces: well-intentioned demands that nonetheless drive up costs. Builders need to work with a patchwork of local and state agencies that sometimes impose unclear or inconsistent requirements.

Mercy Housing, the builder of 833 Bryant, was able to avoid these headaches. The project’s funders, Tipping Point Community and the San Francisco Housing Accelerator Fund, prioritised low costs and a short timeline, sought no return and imposed few requirements on the builders. The project was thus able to avoid many of

the problems that plague affordable housing developments. But it still faced the high construction costs endemic to all new housing across the state.

California tells developers of some affordable housing to pay labourers a “prevailing wage”, which is set by the state and can be nearly twice the median wage for a given trade. Prices for some materials have risen sharply in recent years and labour shortages have driven up wages, especially for skilled workers. Developers say that the Bay Area’s high housing prices exacerbate this problem: the region is too expensive for many construction workers to live in.

State and local permit-allocation makes projects even more expensive. In San Francisco neighbourhood organisations can challenge building permits, disrupting construction. Across the state, developers quake at the prospect of litigation under the California Environmental Quality Act (CEQA), a law dating from 1970 that can be deployed to block new housing. Since property tax increases are capped by law in California, some cities raise revenue by levying “impact fees” on developers that can exceed \$150,000 per unit. Though no single factor accounts for high costs, says Paavo Monkkonen, a professor of urban planning at UCLA, the combination results in “death by a thousand cuts”.

To keep construction costs down, 833 Bryant has taken advantage of technological wizardry, which the Bay Area is known for, and innovative governance, for which it is not. The use of modular housing allowed work to continue on site while units were assembled elsewhere. The project also benefited from a streamlined review process made possible by California Senate Bill 35, which passed in 2017. SB 35 set a 90-day deadline for cities to approve qualifying projects, shielding it from challenges under CEQA and precluding the interminable back-and-forth that drives developers in California mad.

These innovations and more like them are sorely needed. According to a report by McKinsey, a consultancy, California faces a shortfall of 3.5m homes. San Francisco’s neighbour across the bay is already charging ahead. On February 24th, Berkeley’s city council voted to do away with single-family zoning. Lori Droste, Berkeley’s housing-wonk vice-mayor, hopes this will open the city up to new construction, driving down prices. SB 35, she says, has already streamlined the development of affordable housing.

San Francisco should follow suit. Even with the well-documented exodus of tech workers, the Association of Bay Area Governments estimates about 55,000 new units will be required every year to meet demand. In 2020 San Francisco added just 4,000. The 146 units in 833 Bryant show that it can be done. ■

The sperm and egg business

Swimming freestyle

WASHINGTON, DC

America's love of free markets extends to its fertility clinics

EVERY TIME one of America's genetic-testing companies advertises a deal on DNA kits, Michael (not his real name) braces himself for what may follow: a message from one of his hitherto unknown offspring. Three decades ago, as a student at the University of Houston, Michael became a sperm donor; the clinic would "pull me out of retirement", he says, every time a customer wanted to expand their family. So far, the 55-year-old knows of around 60 children (and a dozen grandchildren) he has sired in addition to the four teenagers he shares with his wife; he suspects the true number is closer to 100.

"I could write a book," he says, about the lifelong consequences of what had seemed, at the time, like an easy buck and an incentive to live healthily (he steered clear of heavy drinking and drugs to preserve his sperm's motility). Several children contact him regularly. He has been surprised by how many had been led to believe the father who brought them up was their biological parent: "Sometimes they're very angry they've been lied to all their lives". He is aware of some offspring who know his identity but have not made contact, and of a Facebook group he is not part of "so they can compare notes". He gets a lot of cards on Father's Day.

An ever-increasing number of men (and women who donate eggs) will have similar experiences. Because America's sperm- and egg-donor industry is largely unregulated, no one knows how many children have been conceived this way. But social changes mean the industry is going through a period of extraordinary and unprecedented growth. Most of the children Michael fathered were born within heterosexual marriages. Today such couples constitute a minority of clinics' customers, in part because advances in reproductive medicine mean more couples with fertility problems are able to conceive. But there are two bigger reasons for the change: the legalisation of gay marriage and the rising number of single women who are choosing to become mothers. The majority of sperm banks' customers today are gay couples and women without partners.

Rosanna Hertz of Wellesley College, the author of "Random Families", says the market is booming as gay Americans reach marrying age and elective single motherhood becomes more widespread. Partly because conceiving using donor sperm is a

lot more straightforward and affordable than doing so using donor eggs, children born through sperm donors are likely to outnumber those from egg donors.

Surging demand and an absence of government regulation have created a field that has developed "more like a business than medicine", says Dov Fox of the University of San Diego, the author of "Birth Rights and Wrongs". The line is often blurred. Regulating baby-making can raise difficult ethical questions about who should be parents and who should be born. But some elementary regulations are overdue, not least because clinics are already making such decisions: requiring, for example, that sperm donors should be a certain height and educated to college level.

Gametes gate

The most obvious gap is a legal limit on the number of children a sperm-clinic donor, however tall and brilliant he may be, can help create. America is one of the few countries to have no such cap (Britain, by comparison, has a limit of ten donor-created families per donor). Many clinics have their own limits. Jaime Shamonki of Generate Life Sciences, which operates California Cryobank, America's biggest sperm bank, says although people worry that large groups of half-siblings could lead to incest, a bigger concern is that a donor with an undiagnosed hereditary health condition may spread it widely.



The creation of Adam, updated

But without a law, even self-imposed limits are routinely flouted. Alan (not his real name) reckons he fathered "hundreds" of children as a result of the four years he donated sperm to a clinic three times a week. Because he had a high sperm count, most of his donations were divided into 15 to 20 vials (one is used per insemination effort) and they tended to sell out. The clinic, he says, never mentioned a limit on the number of children he would beget, though he is not complaining; in his most lucrative year he made \$50,000.

Beside health concerns, there is another important reason for limiting a donor's fecundity. The children of sperm and egg donors, like those who are adopted, often want to trace their blood relations. But it is difficult to forge strong relationships when vast numbers of children are involved. Wendy Kramer of the Donor Sibling Registry, which helps connect members of donor families, says this is an example of how the contract between clinics and would-be parents has ignored the interests of the children it produces. She established the group in 2000 after her then ten-year-old son, conceived using donor sperm, had become curious about his wider family. Last month he learned of the existence of two new half-siblings, bringing the tally to 22. Ms Kramer had been told her sperm donor would father no more than ten children, a limit she considers sensible.

Related to this is the issue of anonymity. Most sperm clinics in America offer donors the option of remaining anonymous until a child is 18, or for ever. But because donor-conceived children, like adopted ones, fare better psychologically when told of their origins from babyhood and allowed to trace their relatives if they wish to, there is a push to prohibit anonymity. It is, in any case, a false promise, thanks to DNA testing. There would be a cost: when anonymity is banned the number of donors falls. Other countries have decided that is a price worth paying for children's well-being. Anonymity (and the fact that donors can be paid) is one of the reasons America has become an exporter of sperm.

Many observers would also like a law requiring clinics to do more comprehensive screening for health conditions. In 2014 a once-popular donor who had fathered innumerable children in several states and at least two other countries was found to have lied about being a polyglot neuroscientist with an IQ of 160 and perfect health. He was, rather, a university dropout with a criminal record and several health disorders. The case has sparked multiple lawsuits against the clinic in Georgia that had marketed and sold his sperm without checking his medical records or conducting a criminal check. Several were dismissed on the ground that the clinic was not breaking the law. ■



Evangelicals after Trump

Two nations under God

NASHVILLE, TENNESSEE AND KELLER, TEXAS

Many evangelicals are quietly questioning the movement's allegiance to Donald Trump. But only time, and demography, will bring change

SET IN THE bucolic countryside on the edge of Nashville, Christ Presbyterian Church is a stately building where, in normal times, hundreds of evangelical Christians gather to worship. On a recent Sunday a smaller, socially distanced congregation assembled to hear the preacher speak on the eighth chapter of the gospel of Mark, in which Jesus asks his disciples: "Who do people say I am?" Such questions of identity are troubling many in the congregation, too. Chatting after the service, Samantha Fisher, a mother of two who works in public relations, sums up the current moment: "I don't know any more what it means to be a Christian and an American."

White evangelicals like Ms Fisher are undergoing an identity crisis that has been a long time in the making, but has crystallised during four years of Donald Trump's presidency and, especially, with the violent uprising at the Capitol on January 6th. Images of activists waving flags with Christian messages, praying in the name of Jesus inside the Senate chamber and claiming to defend America as "a Christian nation", have left many evangelicals angry and confused. About 80% of white evangelicals supported Mr Trump in 2016 and at least 75% did so in 2020. The Pew Research Centre found last year that 59% of evangelicals felt the Trump administration had helped not hurt their interests. But conversations with a wide range of believers suggest that many churches are divided, and that support is not as overwhelming as the

80-20 split might suggest.

"For every evangelical I meet who supports what happened on January 6th, I meet 5,000 who do not," says Scott Sauls, senior pastor at Christ Presbyterian. Leaders like him are trying to shift the focus of their churches, warning that putting too much faith in politics is not only spiritually misguided, but also self-defeating. "The culture wars are the greatest distraction from the mission of the church," he says.

Evangelicalism is traditionally defined by four theological beliefs: the need for a spiritual rebirth (being "born again"); the centrality of Christ's death on the cross to bring about that rebirth; the spiritual authority of the Bible; and an outworking of faith in missionary and social-reform efforts. The current reckoning centres on how to carry out that fourth belief and how much to stress political activism. "I think to some degree, there is an understanding in popular culture of 'evangelical' as referring to a personal relationship with Donald Trump rather than a personal relationship with Jesus Christ," says Russell Moore, head of the public-policy arm of the conservative Southern Baptist Convention (SBC), who opposed Mr Trump.

A growing number of people are differentiating between the two. Ten days after January 6th Hunter Baker, the dean of arts and sciences at Union University, a Southern Baptist college in the town of Jackson, 130 miles west of Nashville, published an apology in which he declared that, though

he had voted for him twice, he had "severely underestimated the threat posed by a Donald Trump presidency." In an interview, he added: "I have been pouring myself into politics most of my adult life. I think now we need to focus back on the church and less on politics." He says he will not vote for Mr Trump again. "I am not prepared to put the whole American order up for grabs. It is time to walk away."

Some evangelical institutions, though remaining conservative, are also readjusting. Before the November election, the National Association of Evangelicals (NAE), one of the largest umbrella groups for the movement, representing millions of people in 45,000 churches from 40 denominations, released a statement resolving to "seek racial justice and reconciliation" and to "resist being co-opted by political agendas". Many within the NAE are trying to represent a new type of evangelical, more intellectual, less white and less confrontational. Its new head, Walter Kim, holds a Harvard doctorate and is its first non-white leader. The chairman of its board, John Jenkins, is African-American.

Demography is having an impact, too. Robert P. Jones of PRRI, a think-tank, and author of "The End of White Christian America", says that 22% of American pensioners are white evangelicals but only 8% of millennials are. Between a quarter and a third of evangelicals are not white, and many vote Democrat. Some of these shifts could start to influence politics.

And on the sixth day

The current moment is in some ways a replay of an earlier crisis. In the baking summer of 1925, outside a courthouse in Dayton, 150 miles east of Nashville, a teacher called John Scopes was charged with illegally teaching evolution in school. Scopes was found guilty by the court, though he was acquitted on a technicality and in the court of public opinion. The fundamentalism that underpinned the law was ridiculed, and the "monkey trial" became a turning point for American Christianity. Many strict fundamentalists withdrew from national life (though they remained strong in the South) while modernists, who questioned the literal truth of the Bible, became the mainstream.

Some theological conservatives, however, did not retreat. Intent on engaging with society, they created a third way after the second world war. It initially called itself evangelicalism, a word with roots in the Reformation, and it split into two strands. Divisions were messy but, broadly speaking, outside the South it sought to combine "deep, biblical reflection with social engagement, careful academic scholarship and a trust in science and reason," says Mark Labberton, president of Fuller Theological Seminary in Pasadena. It tried ▶▶

▶ to steer away from literalist interpretations of the Bible, to support civic engagement and free itself from the more fundamentalist and overtly racist tendencies of its Southern cousins. One figure who became the face of the movement, and held sway in both strands, was Billy Graham.

After a period of political dormancy, however, the southern branch re-emerged in the late 1970s and 1980s with a social and political agenda. “A tsunami of fundamentalism washed over evangelicalism,” says Mr Labberton. This more tribal form of faith became synonymous with the word evangelical. Its leaders, such as Jerry Falwell senior and Pat Robertson, he says, claimed to be most faithful to the Bible, but were in fact “the ones with the loudest media voices” on issues such as abortion and homosexuality. Politics became its priority and, crucially, it was still infused with the racism and sexism of the old South.

In its current incarnation, some of this has morphed into a form of “Christian nationalism”, which says that America has been and should always be distinctively Christian. In their book, “Taking America Back for God”, Andrew Whitehead and Samuel Perry claim roughly half of evangelicals, by some definitions, embrace Christian nationalism to some degree (and often subconsciously). This kind of nationalism, say the authors, believes that non-Christian Americans are unable ever to be “truly American”. It also presents fertile ground for conspiracies.

A poll for the American Enterprise Institute recently found that 28% of white evangelicals believe in QAnon, a conspiracy suggesting that Mr Trump is locked in a battle with a cabal of depraved deep-state actors who want to ruin America. Numerous evangelicals contacted by *The Economist*, none of whom would speak on the record, said their church had split as a result. A deacon left a church in New England because the pastor did not urge people to vote for Mr Trump (“you now have blood on your hands”, she told him in an email). At a church in Seattle, the pastor was driven out by anti-maskers. At another church in the north-west a leader was fired for writing online that “this is not the gospel”, when Mr Trump posed with a Bible last year.

Now, though, the successors of the “third-way” evangelicalism of the 1950s are trying to reform the movement once again. When Bob Roberts, a pastor at Northwood church in Keller, a suburb of Dallas, realised his church did not reflect the diversity of his message, he promoted black and Hispanic leaders and linked with the local Muslim community, some of whom visited his church. A quarter of the 2,000-strong congregation left. “We are Christians not Muslims,” wrote one. Mr Roberts is no closet liberal. Pro-life and a member of the SBC, he insists: “I do not view the

church as a tribe for white evangelicals.”

Many agree, and deplore Mr Trump’s character, but worry that Christians who vote Democratic, or who do not vote at all, are ignoring an even greater danger from the left, which they believe is about to steamroller people of faith. “Those people will soon be experiencing buyer’s remorse as the emerging oligarchy of politics, media, academia, woke business and high-tech threaten to create one-party national politics that undermines religious freedom and true democracy,” says Os Guinness, a prominent evangelical author of more than 30 books, who is also critical of Mr Trump. Mr Labberton is concerned about the radical left, too, but says Trumpism is “too blunt an instrument” with which to fight it.

Meanwhile, America is changing rapidly. The percentage of Americans who say they are Christians declined between 2009 and 2019 from 77% to 65%. White evangelicals declined from 20% to 16% in that time, says Greg Smith of the Pew Research Centre, though the share of white Protestants identifying as evangelical is higher in 2020 (56%) than a decade ago (53%). Ryan Burge of Eastern Illinois University says this may reflect more non-observant conservatives identifying as evangelical. From 2008 to 2019, the share of evangelicals who said religion was very important fell from 81% to 74%. One in ten self-identified evangelicals is Catholic, says Mr Burge.

Voices crying in the wilderness

The slow death of a culture can, however, lead to resurrection. In Oregon a group of Christian NGOs has sprung up, whose founders are theologically evangelical and socially conservative but have no links to politically conservative evangelicalism. The left-leaning state government is working enthusiastically with them. Ben Sand runs a group called Every Child, which mobilises communities to work with Oregon’s Department for Human Services (DHS). Three-quarters of the 1,500 families who became certified for fostering children in

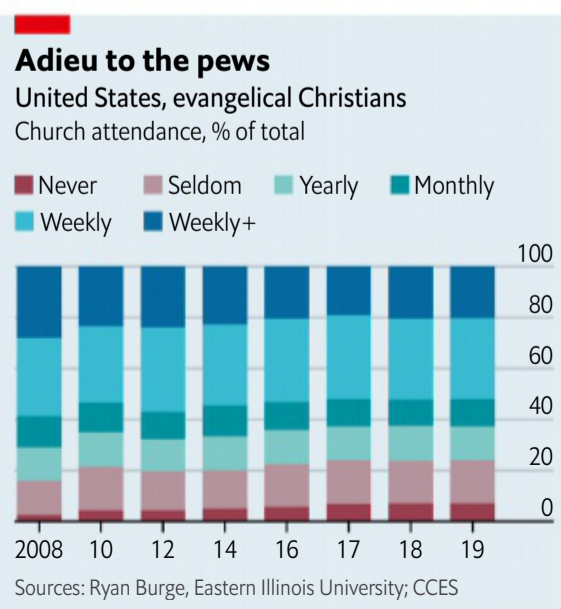
2020 have come through Every Child.

“Evangelicals look at Oregon and say this is where God goes to die,” says Mr Sand. But having no cultural power can be helpful to the spiritual message, he says. “The best thing for the evangelical movement is for it to lose its cultural influence, because only in that context of humility, of going back to what matters most in the ethics of Jesus, will the church find its soul again.” The detachment of faith from right-wing politics appeals to Fariborz Pakresht, director of the state’s DHS: “Perhaps this is what true Christianity looks like.”

Mr Sand says evangelicals need a more biblical definition of Christian victory, one that is not political. He and many of his millennial friends voted Democrat and he says that does not define them. Millennial evangelicals are no less socially conservative but many are less political. They are more racially diverse, care more about racial justice, immigration and climate change. The old battlegrounds such as gay marriage interest them less. “We lost the culture wars. I’m not fighting for a power I never had,” says John Mark Comer, an influential young pastor in Portland.

Mr Jones of PRRI says there are few signs yet that these shifts are filtering through into voting patterns. White evangelical backing for Republican presidential candidates has hovered around 75-80% for decades, he says. Even conservatives who did not like Mr Trump still voted for him. But he points to one PRRI poll after January 6th that hints at change: it asked if Mr Trump was a true patriot. Among white evangelicals, 66% agreed and 32% disagreed. “What would it mean if the 20% of non-Trump white evangelicals became a third of them?” he muses. “That would be a game-changer.” He is not sure it can happen, however, because modern evangelical culture has become so entwined with Republican power. But after January 6th and Mr Trump’s attempts to overthrow a fair election, says Mr Jones, “If there ever was such an opening this is it.”

Meanwhile, moderate evangelicals across the country, unheard amid the cacophony of cable news, continue to talk about “the radical centre”. “What evangelicals should be doing is calling both Trump and the far left back to the best of the first principles of the American experiment that made America great in the first place,” says Mr Guinness. He points to George Washington’s letter in 1790 to the Hebrew congregation in Rhode Island, whose rabbi had written to ask if the Jewish faith would be protected in the New World. “All possess alike liberty of conscience and immunities of citizenship,” replied Washington, before quoting the Old Testament prophet, Micah, saying that “every one shall sit in safety under his own vine and fig tree, and there shall be none to make him afraid.” ■





Elections in El Salvador

The millennial caudillo

SAN SALVADOR

Nayib Bukele's authoritarianism is increasingly popular

OUTSIDE A POLLING station in El Salvador's capital city Jennifer Vásquez, a 36-year-old selling water, explains why she voted for candidates from New Ideas, the party of the president, who is just a few years older than she is. "Nayib Bukele has done things no president has ever done before," she gushes, dressed in a t-shirt the sky blue of Mr Bukele's party. "We have received packages of food, including tuna and rice, and he is going to send computers to my children."

Most voters in the country of 6.5m seem similarly smitten. New Ideas won a landslide in the legislative and municipal elections on February 28th. The party, which was founded in 2018—too late for the previous general election—won at least 56 seats in the 84-seat assembly, giving it a two-thirds majority.

The result has shattered El Salvador's political duopoly. Since the end of the civil war in 1992 politics has been dominated by

the Farabundo Martí National Liberation Front (FMLN), a left-wing party that grew out of guerrilla groups, and the Nationalist Republican Alliance (Arena), a conservative party that was founded by a former soldier to oppose those guerrillas. Now these parties have fewer than two dozen lawmakers between them.

At first glance Mr Bukele does not seem like a traditional *caudillo*. The 39-year-old, who was elected president in 2019, wears his baseball cap backwards and broadcasts his every passing thought on social media. An astute publicist, he has enthralled a populace sick of graft. (Three of the previous four presidents have been investigated for corruption; one is now in jail.)

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Mr Bukele's approval ratings, at around 90%, are higher than those of any other Latin American leader. Critics see in his ascendancy a danger to democracy. He controls two branches of the state: the legislature and the executive. His super-majority gives him a chance to shape the third: the legislative assembly must pick a new attorney-general and five Supreme Court judges this year.

Since he came to office Mr Bukele has shown little regard for institutions. "He treats laws like we treat driving regulations," says Nelson Rauda, a journalist. In February last year, frustrated by lawmakers' refusal to approve the budget for his security programme, Mr Bukele entered Congress with gun-toting soldiers. In April, after a rise in the murder rate, his government forced hundreds of prisoners (mostly gang members) to huddle together with their hands tied behind their backs, naked apart from their underwear and face-masks. Mr Bukele tweeted the photo, unembarrassed by the risk that jam-packing prisoners might spread covid-19.

He has demonised anyone who opposes him, including businessmen, journalists and politicians; a fact some blame for the shooting of two FMLN activists in January, the worst act of political violence since the end of the civil war. And like other populist leaders, he foments distrust of demo- ▶▶

cratic institutions. Last week he warned, without evidence, of possible fraud, and just before the polls closed he broke electoral law by giving a press conference urging people to vote.

Those in power say the election result will mollify Mr Bukele (along with tweeting furiously about his detractors, he keenly watches his approval ratings). Felix Ulloa, the vice-president, says the “resistance” of the bureaucracy and assembly “generated a confrontational attitude in him”. Others are more worried. “We will see how he governs once there are no obstacles,” says Alex Segovia, an economist and former FMLN official.

Mr Bukele has a lot to tackle. The World Health Organisation has praised El Salvador’s handling of covid-19—the government invested in hospitals and handed out money to ease the economic pain of the pandemic. However, it also imposed lockdown rules so harsh that the Supreme Court ruled some of them unconstitutional. And these measures contributed to an economic contraction of close to 9% in 2020, among the worst in the region. Public debt is around 90% of GDP. Crime, corruption and poverty remain entrenched.

Mr Bukele claims to have no ideology; he says he simply wants to get things done. But he has no plan, says Bertha Deleón, his former lawyer who cut contact with the president after his gun-toting antics in February. “Everything is pure publicity,” she says. His advisers are typically yes-men. Some are his brothers: one heads his party; another led his presidential campaign. His record so far is decidedly mixed.

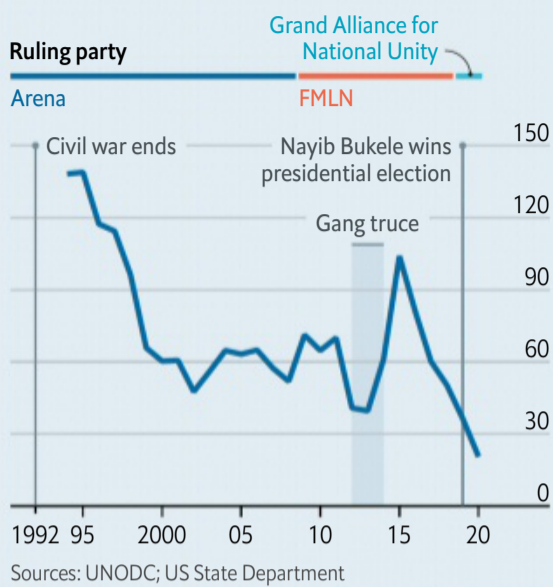
Drifting to demagoguery

Take corruption, which he has vowed to curb. Early in his term, he set up an independent anti-corruption body. But his government has produced no evidence of how it has spent the hundreds of millions of dollars it received from donors during the pandemic. When the anti-graft body sent to the attorney-general evidence suggesting mishandling of such aid, the government obstructed the investigations. In November the police, who like the army now seem loyal to Mr Bukele rather than the state, stopped agents from entering the health ministry to gather more evidence relating to procurement contracts, including those with companies owned by ministerial relatives.

Since Mr Bukele took office the murder rate has fallen, as he often reminds voters. He has given the security forces better pay and fancier equipment. He has also dispersed them around the country to areas with particularly high criminality. But criminologists point out that the homicide rate has been falling since 2015, before Mr Bukele was in charge (see chart). The International Crisis Group, a think-tank, says

Not a new trend

El Salvador, homicides per 100,000 population



that one reason why crime has ebbed is that the state may have cut deals with gangs. Such deals often backfire in the end. Meanwhile, extortion remains as common as ever. By one estimate, it costs El Salvador 3% of GDP a year.

Asked why they love Mr Bukele, some Salvadoreans point to snazzy infrastructure projects. On a sweltering Saturday afternoon, crowds stood snapping photos of a new road to “Surf City”, a coastal strip that hopes to become a tourism hub.

Others mention handouts: since the pandemic started, the state has given many people food packages and \$300 lump sums. It has also pledged to give laptops to 1.2m pupils, to the delight of people like Ms Vásquez. How all this will all be paid for remains to be seen—possibly with a loan from the IMF.

A lack of checks and balances is worrying in any country. It is doubly so in El Salvador, given Mr Bukele’s track record and unprecedented power. Few other politicians are trying to stand up to him. The only source of criticism seems to be coming from the United States, where President Joe Biden’s new administration has raised concerns about Mr Bukele’s tactics.

Salvadoreans may be willing to overlook their leader’s *caudillo*-like tendencies if they continue to feel that he is looking out for them. Many have low expectations of their politicians, anyhow: at 28%, support for democracy as the preferred form of government is the lowest in Latin America (jointly with Guatemala). “We have seen this story many times before in this region,” says Celia Medrano, a candidate for the Inter-American Court of Human Rights, a regional body. She is referring to populists who end up wrecking their countries, such as Hugo Chávez in Venezuela. “The president wants to, and can, make history but needs to learn from history,” she thinks. Unfortunately, New Ideas may turn out to be the party of old tricks. ■

The Chango people

A sea change

SANTIAGO

A new constitution could give indigenous folk more say

BRENDA GUTIÉRREZ, a 50-year-old shellfish gatherer, knew she was a Chango for as long as she can remember. When she was growing up in a fishing village in northern Chile, her parents always called her *Changuita* (little Chango girl). Her schoolmates, alas, called her “smelly” and “dirty” because of her indigenous roots.

Such discrimination turned her into an activist. She lobbied for the Chilean state to recognise her people, an indigenous group whose culture is supposedly extinct. “We exist and are alive,” she says. In October last year, the Changos won recognition. And an election next month for a convention to change Chile’s old constitution could boost them further.

The Chango—a colonial-era term which has stuck—are descended from nomads who inhabited South America’s west coast over 10,000 years ago. Despite their culture having supposedly vanished, 4,725 Chileans defined themselves as Chango in a 2017 census, in the “other” category. Many still work as hardscrabble nautical types, as their ancestors did (they were known for sea-lion skin rafts). Some still use ancient tools such as the *chinguillo*, a net fibre bag to carry fish, and the *chope*, an iron file to scrape molluscs off rocks.

One reason why people mistakenly thought they no longer existed is that the Chango people, who are thought to have come from a number of different tribes in coastal areas of northern Chile, tended to assimilate. (By, for example, abandoning ▶▶



Flying the flag of recognition

► their native languages for Spanish.) And unlike other groups, such as the Diaguitas (recognised in 2006), most of them did not see any need to be officially acknowledged. According to Luis Campos, an anthropologist, many were politicised only after a fishing law in 1991 and its amendments in the 2000s limited fishing to certain areas.

Chileans are growing more aware of their indigenous compatriots. Over the past two decades more have appeared in official statistics. Some 13% of Chileans are now recorded as indigenous, up from around 5% in the census of 2002.

In October last year the Chango were added to the list of peoples entitled to benefits under the Indigenous Peoples Law of 1993. This law offers scholarships and economic development grants. It also provides a chance to reclaim ancestral land. More recognition is coming, too. Elections for the body to draft a new constitution will take place on April 11th.

The constitutional convention will have 155 members. Seventeen seats have been reserved for indigenous groups. Their votes could be crucial to achieve the two-thirds majority required to approve each

clause of the new constitution, thinks Antonia Rivas of the Centre for Intercultural and Indigenous Research.

For activists such as Ms Gutiérrez, who is standing as a potential candidate at the convention, such influence could transform Chile. The country is still recovering from huge protests against inequality in late 2019. The various indigenous groups (such as the Mapuche, who are 10% of indigenous people in the country) were not mentioned in Chile's constitution, drawn up in 1980. Now they will have a seat at the table to draft the new one. ■

Bello A gap between Chile and the rest

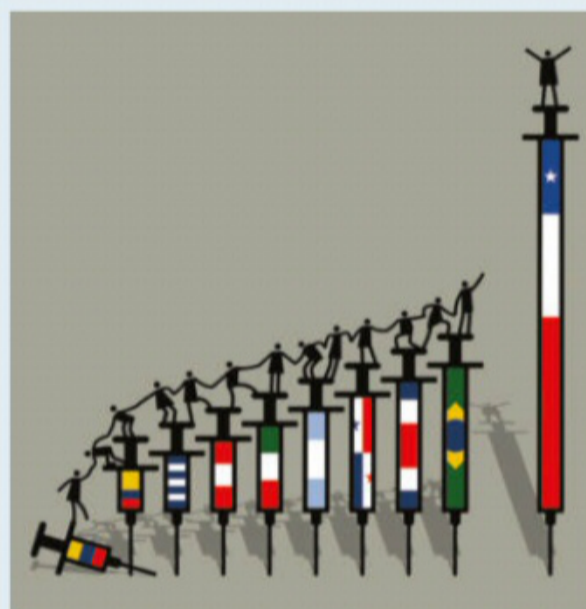


Vaccination is woefully politicised in most of Latin America

EACH DAY this week some 100,000 Chileans aged 60 to 64 turned up to get their inoculation against covid-19. Having vaccinated nearly 20% of its adults, the sixth-best performance in the world, Chile is on track to meet its target of covering 80% of its 19m people by June 30th. After starting with health workers, the jobs are being applied in strict descending order of age, a different year each day, and to teachers, too.

This swift and orderly programme contrasts with the rest of Latin America. In vaccination as in other matters, the region displays its divisions, inequalities and problems of governance. In this case, sadly, they will cost lives. Colombia, Ecuador, Venezuela and several smaller countries have barely started jabbing. Mexico, with 2% of its people vaccinated on March 1st, is below the world average of 3.5%. In Brazil (4%) vaccination trails behind the new P.1 variant of the virus, which spreads faster than the original and seems to disregard prior natural immunity. This week the health secretaries of Brazil's 27 state governments declared that the country is suffering "the worst moment" of the pandemic.

The slow roll-out is largely because of the worldwide shortage of vaccines, especially from Western drug firms whose supplies have gone mainly to their home markets. Argentina, Brazil and Mexico plan to make vaccines but have found it hard to source the active ingredients and vials. Part of the problem is government fumbling. Whereas the African Union made bulk pre-purchases, Latin America's lack of regional co-ordination meant that countries raced against each other, points out Ernesto Ortiz of the Global Health Institute at Duke University. In that race, Chile did two things right: in mid-2020 it agreed



with several pharma companies to host vaccine trials to encourage early delivery; and its immunisation programme has an up-to-date digital database. Many other governments have struggled with complex procurement negotiations.

The result is "patchiness", according to Clare Wenham, a health expert at the London School of Economics. Different vaccines, different priority groups and different distribution plans could complicate opening up the region's economies, she thinks. This patchiness owes much to political manipulation. Vaccine distribution in Brazil has been particularly haphazard, because the federal government of Jair Bolsonaro, a populist who denies the seriousness of the virus, has absented itself from the job.

In Mexico, another federal country, the government of Andrés Manuel López Obrador seized control of the vaccination programme from the states. With an important election due in June, it decided that 333 "highly marginalised" municipalities should get the vaccine first. Many are rural and less hit by the pandemic than the

cities. Teachers have been jabbed before nurses, who are at higher risk.

This is queue-jumping on behalf of a political clientele. Elsewhere it is the powerful who have jumped queues. In Peru the health and foreign ministers resigned last month after it emerged that they were among 487 insiders who secretly benefited from sample doses provided by Sinopharm, a Chinese company, as a sweetener; another was Martín Vizcarra, who was ousted as president in November. Health ministers in Argentina and Ecuador left after similar scandals. These affairs have done no good for the credibility of democracy in their countries. They also "play against trust in vaccination programmes", says Dr Ortiz. Polls suggest vaccine hesitancy has risen in Peru since last August.

Those vaccines currently available in the region come mainly from China and Russia, which have been quicker to deliver than their Western rivals. China trades a lot with and invests a lot in several Latin American countries. Vaccine diplomacy may give it soft power for the first time. As for Russia, it had almost disappeared from Latin America since the end of the cold war. Now it is back, and in a benign guise.

Vaccination is a marathon, not a sprint. By February 27th Latin American countries had ordered 550m doses of Western vaccines, compared with 213m from China and 72m from Russia, according to Duke University. Later this year, the Western doses should arrive in force. Eventually, both the scandals and the source of the early vaccines may be forgotten if the region acquires immunity and new variants are kept at bay. But it is more likely that the botched vaccination effort will have lasting political and diplomatic consequences.



Christians in Iraq

Still bearing the cross

QARAQOSH

The pope is heading for Iraq, where Christians are afraid to go home

THINGS ARE moving quickly in Qaraqosh, a sleepy Christian town just outside Mosul in northern Iraq. Pope Francis arrives on March 7th, four years after Islamic State (IS) was chased out. So local priests have been hurriedly cleaning up al-Tahira, their cathedral and one of Iraq's largest churches. They have refurbished its burnt interior and repaired most of the masonry that the jihadists used for target practice. When your correspondent visited, five days before the pope, smashed chandeliers and a golden crucifix torn down by IS still littered the forecourt. Father Ammar Yako, the priest overseeing the project, says he has received no support from the Iraqi government; the funding has come from Catholic groups in the West. He says he will finish just in time for the Holy Father.

Pope Francis is the first-ever pontiff to visit Iraq, where over 95% of the population is thought to be Muslim. He arrives at

a difficult time for its Christians, whose forebears have been in the country since the first century. Churches are being rebuilt, but there are fewer believers to fill the pews. Around 1.2m Christians lived in Iraq in 2003. War and misery have pushed that number down to around 250,000, or less than 1% of the population (see chart on next page). Many of those who left will never come back. But Iraq's leaders hope that Christians displaced within the country will soon feel safe enough to go home. President Barham Salih says the pope's visit will help Iraq to "heal".

The trouble for Christians began after

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the removal of Saddam Hussein, Iraq's dictator, in 2003. He had largely protected the group—even making a Christian, Tariq Aziz, his deputy prime minister. But some Muslims view Christianity, despite its long history in the region, as a Western import. Anti-Christian violence increased during the American occupation and turned into an existential threat when IS captured swathes of the country in 2014. The jihadists told Christians that they could leave, convert to Islam or be killed. In August that year, around 100,000 of them fled from the Nineveh Plains, the heartland of Iraqi Christianity, which is conquered. Some went to Baghdad or to Erbil, capital of the autonomous Kurdish region, but many left the country. An enduring source of resentment towards Christians in Iraq comes from the notion that they can easily claim asylum in the West, says Pascale Warda of the Hammurabi Human Rights Organisation, an NGO in Baghdad.

Aid to Church in Need, a Catholic charity based in Germany, estimates that the war against IS destroyed or damaged 14,936 homes and 363 church properties in the Nineveh Plains. Around 57% of the homes and 11% of the church properties had been repaired by January. Christians have trickled back. But many sold their homes to Muslim families. Others stay away because of a lack of security and jobs.

Reconstruction has happened separately from efforts to stabilise the region, says Reine Hanna of the Assyrian Policy Institute, a think-tank in Washington. It reckons that across the Nineveh Plains, 53% of Assyrians, a predominantly Christian ethnic minority, have returned to their villages. But in some areas that number is less than 10%. “When people don’t feel safe, it doesn’t matter if they have reconstructed churches or houses,” says Ms Hanna.

The calculations of Christian families often depend on which group controls their home town. At least six groups claim authority in different parts of the Nineveh Plains. They include Iranian-backed and predominantly Shia militias (known as the Popular Mobilisation Forces), Kurdish forces (known as the Peshmerga) and the Iraqi government. In many places portraits of Qassem Suleimani, the late commander of Iran’s Revolutionary Guard Corps, are common. But in towns controlled by the Nineveh Plain Protection Units, a Christian militia, Pope Francis smiles down from billboards. Unsurprisingly, these towns have higher rates of return.

The Iraqi government has made at least some effort to reach out to Christians. It declared Christmas an official holiday last year. But many Christians say it treats them as second-class citizens. They have a tougher time getting government jobs than Muslims. The constitution dating from 2005 is based on Islam. Marriages between Muslims and Christians are frowned upon. Children born of mixed parentage are automatically classed as Muslim, even if the child is a product of rape. In Baghdad, the capital, Christian businesses are often attacked, says Ms Warda. Christian leaders were vocal supporters of big anti-government protests in 2019.

Iraqi Kurdistan, in the north-east, is more hospitable to Christians. The Kurdish national project is based on ethnicity, not religion, and the Kurdistan Regional Government (KRG) has more provisions for religious pluralism than the Iraqi government has. But the KRG does not always ad-



here to its own laws, says Ms Hanna, and ethnic tensions can be as febrile as religious ones. Under Kurdish rule “you can be Christian, but you can’t be Assyrian,” she says. Assyrians and Yazidis, another religious minority, felt abandoned when the Peshmerga withdrew from the Nineveh Plains in 2014, leaving the area to IS. Some of that distrust still lingers.

Western aid groups have singled out Iraq’s Christians (and Yazidis). USAID, America’s development agency, committed \$27.5m (or 2.5% of its total development spending in Iraq) to help people returning to the Nineveh Plains in 2018 and 2019. It was the only district to receive a dedicated stream of funding for resettlement from America. USAID also renegotiated the terms of a \$75m contribution to the UN in 2018 that was slated for a stabilisation project in Iraq. The agency made sure that \$55m would be spent supporting religious minorities in the Nineveh Plains.

When Donald Trump was America’s president, USAID was reportedly pressed to direct more support towards Christians. Most Western countries do not want to be seen favouring one religion over another. But some do not mind. In 2017 Hungary launched “Hungary Helps”, a project aimed at Christians around the world. Tristan Azbej, the Hungarian minister for the aid of persecuted Christians, said in 2018 that the programme’s “flagship project” was the reconstruction of Tesqopa, a predominantly Assyrian town in the Nineveh Plains.

For Christians, as for so many Iraqis, painful memories of fleeing their homes are still fresh. Tempting them away from stable and relatively prosperous places such as Erbil will be difficult. Convincing them to forgo Western visas will be tougher still. Some Iraqis think the pope’s visit will raise awareness of Christianity’s long history in the country and, perhaps, lead to greater understanding between faiths. But Father Yako thinks it will take a bigger effort. “Other communities, especially Muslims, need to do more to make us feel comfortable,” he says. ■

Lebanon

A job among friends

DUBAI

Politicians jump the vaccines queue, then quarrel with the World Bank

AT FIRST GLANCE one might have thought the cardboard box was a visiting head of state. On February 13th Lebanon’s first batch of covid-19 vaccines emerged from a jet at Beirut’s international airport. A delegation of officials drove out to meet it; local media broadcast the event live. Never mind that the shipment contained a meagre 28,500 jabs. After a miserable year of pandemic, economic collapse and a catastrophic explosion in Beirut, the vaccines offered a dose of hope.

Scepticism, a pre-existing condition in a country notorious for corruption, prevailed too. Many Lebanese expected the rich and powerful to jump the queue to get their shots. They drew some comfort from the involvement of the World Bank, which in January allocated \$34m to fund vaccine imports, enough to cover doses for more than 2m people (a third of the population).

Lebanon was the first country to strike such an agreement with the bank. It came, however, with conditions. The bank demanded transparency. Lebanon would have to set up a system for distributing vaccines. Everyone would have to wait their turn. “There will be no *wasta*,” said Ferid Belhaj, the bank’s top official for the Middle East, using an Arabic word that connotes nepotism. The health ministry published a plan that allocated the first doses for medical workers and over-75s.

Elie Ferzli is neither. That did not stop the 71-year-old MP and 15 of his colleagues from getting a dose on February 23rd. About half were under 75, and they took their jabs at the parliament building rather than a designated hospital. The World Bank raged. Saroj Kumar Jha, a regional director, said the bank could halt its funds.

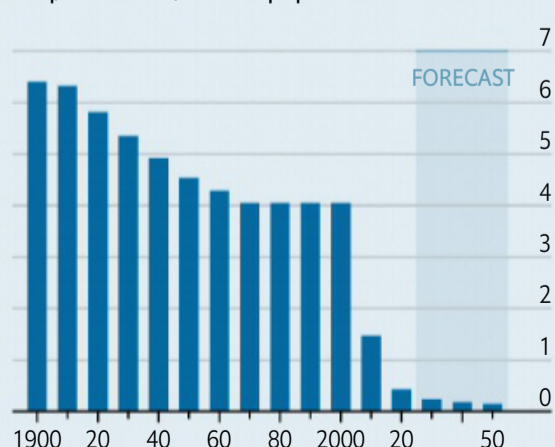
A few MPs apologised. Others claimed they were front-line workers in need of protection. Mr Ferzli embarked on a series of televised diatribes, called Mr Jha a liar and urged his bosses to “send a replacement”. He took a further jab at him by mispronouncing his first name as “Farouj”, Arabic for a roast chicken.

The World Bank faced a dilemma familiar to Lebanon’s donors. To do nothing would set a bad precedent, in Lebanon and other countries with similar agreements. But to halt funding would delay an already sluggish vaccine roll-out. So far it has demanded only that the health ministry publish weekly data on vaccine distribution.

Most of Lebanon’s friends have tired of ▶▶

Churchgoing

Iraq, Christians, as % of population



Source: World Christian Database

► such scandals. The country desperately needs help. Its currency has lost 85% of its value since October 2019. Hyperinflation has pushed more than half the population into poverty, with food prices up fourfold last year. Daily blackouts are growing longer as power plants run short of fuel. Despite a restrictive lockdown imposed in mid-January, Lebanon still has some of the world's highest rates of new covid-19 infections and deaths.

Almost no one is queuing up to help. The Gulf states have closed their purses, judging Lebanon too friendly with Iran, their arch-rival. Western donors are tired of funding corruption and dysfunction. A pot of \$1bn in aid pledged at a donors' conference in 2018 remains undisbursed because the Lebanese government failed to approve minimal reforms. Talks with the IMF last year went nowhere.

The World Bank has been among Lebanon's few remaining friends. In January it pledged a \$204m loan to provide cash

transfers to 147,000 poor Lebanese families for the next year. Even there, though, Lebanon's leaders found a way to twist the scheme to their advantage. The money will be transferred to Lebanon in dollars but distributed to recipients in local currency at a below-market rate. The Lebanese central bank, in other words, spotted an arbitrage opportunity in humanitarian aid.

Last month gunmen assassinated Lokman Slim, a prominent critic of Hizbullah, the Shia militant group-cum-political party. (The murder, like most such killings in Lebanon, has not been solved and probably never will be.) On March 2nd the pound hit 10,000 to the dollar, its weakest rate ever, which led to angry protests across the country. Gone was the hopeful atmosphere of October 2019, when hundreds of thousands of people turned out for anti-government rallies. The mood has turned dark. Lebanon's avaricious leaders may need protection against more than covid-19 in the months to come. ■

Homophobia in Africa

Out and preyed on

The young are barely more tolerant than the old

WHEN GAY Nigerians took to the streets to join massive protests against police brutality last year, it was not just the police who attacked them. Fellow protesters also hurled insults at them, ripped up their rainbow flags and tore placards from their hands. "I felt like a lot of people just wanted me dead," says Matthew Blaise, a 21-year-old student.

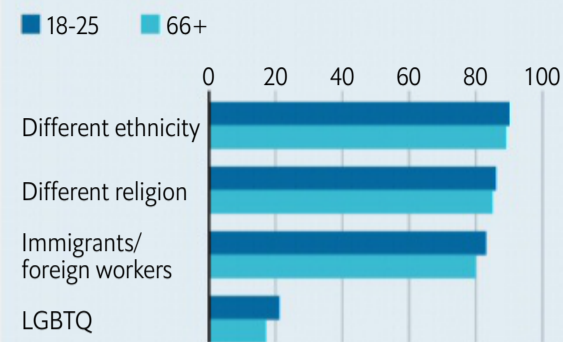
In many parts of the world the young

are far more tolerant than their elders of lesbian, gay, bisexual and transgender (LGBT) people. But with a few exceptions, such as in Botswana, which decriminalised homosexuality in 2019, young Africans seem to be almost as homophobic as their grandparents.

A survey released last year by Afrobarometer, a pollster, found that only 21% of Africans aged 18-25 would not mind hav-

Rights for some

Africa, tolerance levels*, by age group
Average of 34 countries, 2016-18, %



*Those who "would strongly/somewhat like" to have someone from each group as a neighbour, or "would not care"

Source: Afrobarometer 2020

ing a gay neighbour, compared with 17% of those aged 66 or older. That makes Africa different from places like Japan, where 92% of those aged 18-29 think homosexuality should be accepted by society, compared with just 56% of those above the age of 50. The homophobia of young Africans is especially worrying, given how numerous they are: half the continent's population is under the age of 20. And it contrasts starkly with their tolerance in other areas.

In an African Youth Survey last year, conducted in 14 countries and funded by a South African foundation, 83% of young Africans said that more should be done to protect the rights of ethnic minorities, while 64% agreed that "sexual harassment is a problem in my country". Yet 69% disagreed with the statement: "My country should do more to protect the rights of LGBTQ people." (The Q stands for "queer or questioning".)

This is not because robust protections for gay rights are already in place. On the contrary, at least 32 African countries still criminalise gay sex, and openly gay people are often abused, beaten up or worse. Only one country, South Africa, has genuinely gay-friendly laws (eg, it allows same-sex marriage). Even there, outside urban liberal enclaves gay people are at serious risk of being attacked or even murdered.

Savn Daniel, a Nigerian human-rights activist, wrote on Twitter that people trying to support gay rights as part of a broader struggle against police brutality "should be arrested and prosecuted". "We're not wasting lives for such unlawful nonsense!" he wrote. Human rights, he argues, are not universal but "context-specific" and should not be used to upend Africa's conservative moral values.

"They look progressive but they are very, very homophobic," says Mr Blaise of many of the Nigerians who protest against police brutality. "I see them as oppressors." Across the continent in Sudan a gay artist, Ahmed Umar, who took part in the revolution that toppled President Omar al-Bashir in 2019, has faced death threats because of ►►



Borne under a banner of freedom

his sexuality. “What has this young generation learned from this experience of being under a dictatorship?” he asks. “How can they not see that what they are practising is exactly what they had practised on them?”

Much homophobia is religiously inspired. After the Middle East, sub-Saharan Africa has the highest proportion of religious people in the world. It is the only region where the young are just as religious as their parents, according to the Pew Research Centre, a pollster. Conservative strains of Christianity and Islam predominate, whose adherents deem homosexual acts sinful, notes Ayo Sogunro of the Centre for Human Rights in South Africa. Studies suggest that religion in Africa exerts more sway over how people view same-sex relationships than their level of education, whether they live in cities or the countryside, or whether they are on the internet.

Opportunistic politicians often denounce homosexuality as un-African—a depraved Western import. In Uganda’s re-

cent election President Yoweri Museveni tried to smear his opponent, Bobi Wine, by saying “he gets quite a lot of encouragement from foreigners and homosexuals.” Yet during the campaign gay Ugandans were abused not only by Mr Museveni’s supporters but by Mr Wine’s as well.

Despite the risks, young gay Africans are gaining the courage to stand up for themselves. “Queer folk are being assertive right now,” says Basiru Alumbu of the African Queer Youth Initiative, a network of activists across the continent. The backlash is a sign that gay Africans are more visible than before. A generation ago, they could not organise online, and hardly any would have dared to take to the streets. “We could never have protested 20 years ago,” says Vincent Desmond, a gay Nigerian journalist. In other regions, as more gay people came out, their neighbours eventually learned to see them as normal. Activists hope that will happen in Africa, too. But it takes courage to lead the way. ■

ransom. Although the kidnappers have not been identified or arrested, many Nigerians believe—rightly or wrongly—that they are Hausa-speaking herders.

Instead of dousing ethnic hatred, politicians have fuelled it. Last year the governors of six south-western states hired local militias to form a regional security outfit known as Operation *Amotekun* (“leopard” in Yoruba). These vigilantes have been accused of brutality and even murder. In December and January they reportedly killed 11 people. Also in January, the governor of Ondo ordered thousands of herders to leave land reserves in his state, blaming them for a rise in kidnapping and banditry. After the one-week deadline expired, Yoruba mobs attacked herders, killing some and destroying their property.

In protest northern traders and cattle dealers blocked the flow of food and livestock to the south. The blockade is starting to bite. Almost no meat is on sale in the usually bustling Mile 12 market in Lagos, Nigeria’s biggest city and commercial capital. The price of tomatoes (essential for making spicy *jollof* rice, Nigeria’s unofficial national dish) has shot up. Baskets that once sold for about 5,000 naira (\$13) now go for 35,000 naira. In the north, which grows most of the country’s fresh produce, the price of onions and tomatoes has slumped so sharply that many farmers are leaving crops to rot in the fields.

The government has since called in the army to clear corridors along which trucks can travel. And after the main spy agency “invited” leaders of the blockade to discuss their grievances—before promptly detaining their president—the traders agreed to call off their protest and allow food to flow south again.

It is not clear whether the government agreed to the protesters’ demands, which included compensation for those who were killed and police protection for northerners in southern states. What is clear, however, is that Nigeria needs better ways to stop its festering grievances from bursting open like rotten tomatoes. ■

Nigeria

Tomato truce

ABUJA

Ethnic and regional tensions are spilling into violence

IT STARTED WITH a squashed tomato that led to a killing. It has since escalated into clashes that have taken at least 20 lives and a standoff between northerners and southerners that has paralysed Nigeria, Africa’s most populous nation.

Last month a porter carrying a basket of tomatoes in the crowded Shasha market in Ibadan, a city in south-western Nigeria, accidentally spilled his cargo, leaving a pulpy

mess. An argument with a nearby shopkeeper over the clean-up soon took an ethnic turn. The porter, who spoke Hausa (a language that identifies him as coming from Nigeria’s north), took a blow from a Yoruba man. As the porter fought back, his assailant slumped, mortally stricken.

Word soon spread on social media that a Yoruba man had been killed in the heart of Yoruba land, inflaming long-smouldering tensions in a country divided between its mostly Muslim north and predominantly Christian south. For hours afterwards Hausa and Yoruba traders hacked at one another or burned down market stalls. At least 20 people are thought to have been killed. Thousands, most of them northerners, were forced to flee.

The clash erupted after years of mounting tensions along religious and ethnic lines as well as between (mostly Christian) farmers and (mostly Muslim) herders. The International Crisis Group, an NGO, estimates that fighting between farmers and cattle herders over access to land claimed more than 1,300 lives in just the first six months of 2018. More recent data are sparse, but many Nigerians believe the conflict has intensified and taken new forms. Since December gangs of kidnappers have struck three schools, snatching hundreds of children and holding them for



You can’t make *jollof* without them





Myanmar

The shooting starts

SINGAPORE

The army's repression of democracy activists is becoming more violent

GONE IS THE carnival atmosphere that pervaded Yangon, Myanmar's biggest city, during the first weeks of protests against a military coup on February 1st. The protesters have exchanged tongue-in-cheek placards for home-made shields and tiaras for hard hats, the better to fend off the increasingly violent security forces. For most of the past month the army—notorious for violently crushing past democracy movements—had responded with water cannons, rubber bullets and tear gas, but nothing worse. But as the demonstrations have worn on, the junta has grown more vicious. Soldiers have begun firing live ammunition into crowds. On March 3rd, the bloodiest day so far, at least 38 people were killed, according to a UN official.

The army, or Tatmadaw as it is known, clearly hopes the shootings will persuade the protesters to go home. Some have: the streets are no longer thronged with hundreds of thousands of them, as they were in late February, but they are far from empty. Young protesters are just as likely to be demonstrating as older, hardened activists. A giggly 17-year-old university student

who was consumed by her passion for K-pop until the coup says she became a “little bit afraid” after her friend was tear-gassed. Despite the danger, she insists, “I have to protest.” She is still doing so most days.

Opponents of the coup are steeling themselves for a long fight. They hope that, by convincing enough workers to go on strike, they can throw a spanner in the machinery of state. Teachers, doctors, railway workers, truck drivers, customs agents and other bureaucrats have not been going into work for weeks. Neither have many employees at banks, whether state-owned or private. As a result, most of the country's 2,000 private bank branches have been shut since February 8th, according to *Frontier*, a local magazine. Banks have also

placed caps on withdrawals from cash machines or suspended them altogether.

There are other signs of economic distress. Over the past month the kyat has depreciated by at least 6.5% against the dollar. Imports of fuel, on which Myanmar relies heavily, have stalled. The World Bank is no longer disbursing funds for \$350m-worth of projects. Some foreign investors, especially those in business with conglomerates owned by the army, are packing their bags. Lim Kaling, a Singaporean businessman, is relinquishing his stake in a tobacco company in which one such conglomerate, Myanmar Economic Holdings Limited (MEHL), is the biggest shareholder. Kirin, a Japanese brewer, has also withdrawn from a joint venture with MEHL.

The civil-disobedience movement “is starting to paralyse the state”, writes Richard Horsey of the International Crisis Group, a think-tank. There are doubts about how long the generals will be able to pay wages. This is particularly embarrassing since Min Aung Hlaing, the commander-in-chief, would like to be seen as a better manager of the economy than Aung San Suu Kyi, the civilian leader he overthrew. The longer the strike goes on, the more inept and weak he looks.

The rising death toll is not the only sign of the junta's mounting frustration. The security services have been trying to force workers back to their jobs. In mid-February, notes Anthony Davis, a security analyst, the exhausted police were reinforced by light-infantry divisions—battle-hard-

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ened troops typically dispatched to fight ethnic militias on the country's periphery. One of the units in question was implicated in a pogrom in 2017 against the Rohingya, a persecuted ethnic minority. There have been reports of violent rampages through neighbourhoods with especially persistent demonstrations. The army is also using surveillance drones and shutting off the internet between 1am and 9am.

The top brass may be hoping that the damage to the economy cuts both ways. Some participants in the civil-disobedience movement are running out of money. Htay Win, who owns a roadside tea shop in Yangon, has almost no savings left. His business was closed for seven months last year, owing to covid-19 restrictions. He closed it again in early February so that he could join the protests. Given his parlous finances, he thinks he will have to re-open soon, at least part-time.

Many other demonstrators have no in-

tention of giving up the fight. Almost a month after the start of the civil-disobedience movement, the number of people participating continues to grow, says Moe Thuzar of ISEAS, a think-tank in Singapore. Aye Thidar Oo, a typist at a municipal office in Yangon, declares, "It might be a year, two years, ten years: I will carry on striking until the end." Nann Yin Htwe, a worker at a garment factory, says her salary was so low that she has nothing to lose by striking. She is receiving food and contributions to her rent from several of the many grassroots aid organisations that have sprung up to help striking workers. She is proud to be out of work, she says.

Mr Davis suspects there are hardliners in the army who advocate swifter, harsher repression to stem the erosion of morale. Two previous agitations for democracy, in 1988 and 2007, ended in massacres. In both cases the army hesitated for over a month before crushing the protests. ■

Price controls in the Philippines

Pig mistake

A ham-fisted decree is trampled by market forces

LAST MONTH retailers in Manila went on a two-week "pork holiday". That was not a fad diet, nor even a few days off scarfing sausage and bacon. They simply refused to sell the stuff, in protest at a price cap imposed by presidential decree.

Pork is a staple in the Philippines. Prices have recently soared, to over 400 pesos (\$8.25) for a kilo of pork belly, more than double the norm. The rise has spurred inflation, which hit a two-year high in January of 4.2%. Both houses of Congress have held hearings on rising food prices. On February 1st the harried government instituted a 60-day price cap on pork of 300 pesos a kilo in Manila. It swiftly vanished from shops' shelves, and a pricey black market emerged.

The fiasco stems from an outbreak of African swine fever, a contagious disease that is deadly to pigs, which arrived in the archipelago in 2019. It has devastated the backyard farms where most pigs in the Philippines are raised. Last year the government launched the Integrated National Swine Production Initiatives for Recovery and Expansion, or INSPIRE, to replace the animals that had expired. It will provide piglets and feed to farmers—but it will be some time before those little piggies get to market.

In the meantime, the authorities have promised to "go after" smugglers and profiteers. They have shipped trucks of live hogs to the capital from islands to the south, notes Fermin Diaz, the editor

of *Livestock and Meat Business*, or *LaMB*, magazine. And they have increased quotas for certain categories of imports.

What the government has not yet done is reduce tariffs on imported pork. The lowest rate is 30%, which works against the expansion of the quota, says Ramon Clarete of Building Safe Agricultural Food Enterprises, or B-SAFE. He suggests a uniform 5% rate—something the government is said to be considering, but that farmers oppose. If pork *adobo* (slathered in a sweet, vinegary sauce), is to remain the national dish, the taxman will need to go the whole hog.



The sow must go on

Internet freedom

Web of regulation

DELHI

India's government follows Bangladesh's in policing social media

MUSHTAQ AHMED, a Bangladeshi writer, knew the risk he was taking. To attack his government's handling of covid-19, not least by likening the health minister to a cockroach, as he did on Facebook last spring, was to challenge the Digital Security Act. Passed in 2018 by the thin-skinned regime of Sheikh Hasina Wajed, now in her fourth term as prime minister, the law penalises such vague crimes as "creating confusion" and "tarnishing the image of the country". Mr Ahmed was one of some 450 people arrested under the law last year. Even so, the 54-year-old did not, presumably, expect to languish behind bars without trial for nine months, be denied bail six times and ultimately die in a prison hospital, as he did on February 25th.

On the same day, in neighbouring India, the government rolled out new guidelines for social media, video-streaming and digital publishing with reassuring patter about pride in Indian journalism and "soft touch oversight". Rather than a draconian law, broad in scope and heavy on punishment, the official government gazette merely recorded the "exercise of the powers conferred by sub-section (1), clauses (z) and (zg) of sub-section (2) of section 87 of the Information Technology Act, 2000".

Yet India's new rules conceal sharp teeth and a long reach. They make messaging services and social-media firms such as Twitter, WhatsApp and Facebook far more responsible for the material posted by users. And they sharply curtail the relative freedom enjoyed by purveyors of online content, from news sites to Netflix.

In January Twitter first complied with and then resisted an official demand to suspend more than 1,000 accounts, mostly of supporters of a long-festering mass protest by farmers. Now all social-media firms and online publishers will be obliged to remove content promptly at the government's request, to reveal the source of any post (and so to break the encryption that many chat services rely on to protect users' privacy), and also to comply with peculiarly cumbersome procedures to respond to public grievances. In an echo of Bangladesh's law, the government can request the removal of any material it says contravenes Indian law, causes harm to national interests or stirs internal unrest.

Although the guidelines talk of self-regulation, bureaucrats must approve the membership of any industry body formed ▶▶

► for this purpose. Any decisions such an outfit makes can be overruled by a government panel, which will also decide whether a media firm has responded adequately to complaints from the public. Given that the Hindu nationalist supporters of Narendra Modi, the prime minister, often troll his critics, firms fear they will be swamped by spurious complaints and then punished for failing to answer them all politely, in a timely fashion. A government initiative to recruit volunteers to assist the police in patrolling the internet could end up generating still more burdensome complaints.

Many argue that the rules infringe constitutional guarantees of free speech and privacy. They are also alarmingly broad and vague: it is unclear whether print publications that also post their output online are subject to the guidelines, and whether and how oversight will be extended to foreign firms. Legal challenges are inevitable.

Social-media firms worry that the erosion of privacy could cause an exodus of customers. When WhatsApp told its 530m Indian users in January that it might share some of their information with its parent company, Facebook, so many dropped the service that it hastily scrapped the change. Digital news outlets, which include some of the fiercest critics of Mr Modi, worry that they will be saddled with an impossible regulatory burden by a government that has already tamed most media.

The government retorts that the internet needs the sort of self-regulating industry groups, codes of conduct and state supervision to which television broadcasters, print media and the film industry are already subject to varying degrees. Nikhil Pahwa, a digital-rights campaigner, doubts it will back down, unless blocked by the courts, even if the new rules drive out big foreign firms. When the government banned dozens of Chinese apps last year, he notes, Indian entrepreneurs eagerly leapt into the breach. During its dispute with Twitter, many of Mr Modi's supporters pointedly abandoned the service for a little-known Indian rival.

Even if the government does have to retreat, online critics will not relax. In February police raided the home of Prabir Purkayastha, the owner and editor of NewsClick, a site that often berates Mr Modi. They kept him under house arrest for four-and-a-half days as they rifled through his possessions. On March 3rd tax authorities raided properties belonging to several Bollywood personalities who, unusually for an industry that typically fawns over the powerful, had criticised Mr Modi. One was Taapsee Pannu, an actress whose sin may have been a social-media post: "If one tweet rattles your unity, one joke rattles your faith or one show rattles your religious belief, then it's you who has to work on strengthening your value system." ■

The Fukushima disaster

Nuclear decay

IITATE, OKUMA AND TOKYO

Ten years on, the catastrophe has not proved the force for change many expected

IN THE HILLY village of Iitate, in Fukushima prefecture, stands a new community centre built with parts pulled from abandoned buildings. Windows from one, doors from another. A chalkboard from a beloved school with no children to attend it. One cloudy day last autumn, a crowd gathered to celebrate its opening. As an elderly woman in a green kimono sang folk tunes, her voice riding a beat or two behind the music, the audience, a mix of locals and Tokyo-ites involved in the centre's design, feasted on chestnut-filled rice balls.

Iitate is a farming district once known for its fine beef and dried radish. In 2010 it qualified for membership of a club called "Most beautiful villages of Japan". Yet its recent history has been far from bucolic. Some 35km to the south-east, across the verdant Abukuma mountains, stands the Fukushima Dai-ichi nuclear plant. Opened in 1971, it was one of dozens built around Japan to power the post-war economy. The government offered municipalities generous subsidies for hosting the plants, and promised people that they posed no risks. By 2011 Japan had 54 working reactors, providing a third of the country's electricity.

At 2:46pm on March 11th of that year, an earthquake shook Japan's north-eastern

coast. The quake triggered a tsunami, sending waves as high as 40 metres crashing along 500km of coastline. Homes and roads were obliterated. Though the plant withstood the waves, its back-up generators were flooded, halting the essential flow of cooling water around its six reactors. Within days, three of them had melted down, spreading radiation across the region and panic around the world.

Thousands fled their homes. A few of them went first to Iitate, but the wind carried radioactive particles in its direction. Eventually the authorities ordered the evacuation of Iitate, too. Residents were allowed to return six years later, but only 1,500 have done so—a fraction of the 6,200 who called it home before the disaster. "The radiation effects are not visible, but I hope you can see how deeply it is felt," says Tao Yoichi of Resurrection of Fukushima, the NGO that organised the construction of the community centre.

The earthquake literally reshaped the country: Japan's biggest island moved 2.4 metres to the east. At the time, a similarly seismic shift in Japanese society was predicted. Politicians painted efforts to rehabilitate Fukushima as an emblem of a broader revival after a period of economic stagnation and demographic decline. Commentators spoke of 3/11, as the disaster came to be known, as a historical turning point, a shared experience that would shape a generation, a shock that would reinvigorate sclerotic institutions and open closed minds. Japan's "post-war" period had given way to a new, "post-disaster" era, went one popular coinage. Kurokawa Kiyoshi, chairman of the parliamentary committee that investigated the disaster, spoke of 3/11 as a possible "third opening", akin to the abolition of the shogunate in 1868 and Japan's defeat in the second world war.

Ten years after 3/11, the third opening has yet to materialise. "I expected that Japan would finally start to change and I pinned hope on that prospect—but I'm afraid I was proven to be wrong," says Funabashi Yoichi, chairman of an independent investigation into the accident. "The first instinct was just to restore, not to reform." Mr Kurokawa agrees: "No, the crisis did not change Japan".

It was, perhaps, too much to expect a revolution. The 3/11 disaster revealed internal failings, mostly of an intractable, structural sort, but also resilience. And though ►



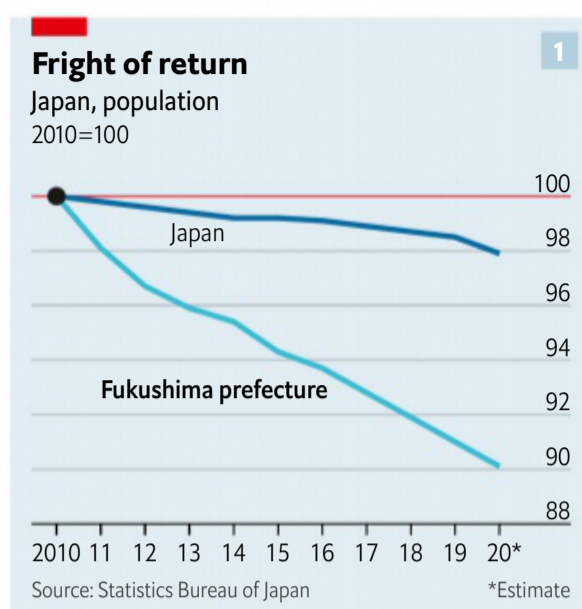
▶ it battered Japan, it did not amount to complete defeat, as in the second world war. By chance, it occurred during only the second brief period in Japan's post-war history when the Liberal Democratic Party (LDP) was not in power. The association of the Democratic Party of Japan (DPJ), in office from 2009 to 2012, with the disaster helped to discredit the idea of reform and political alternation. "Nuclear policy was implemented for many years by the LDP, but the DPJ had to take responsibility [for the disaster]," says Nakabayashi Mieko, a former MP with the DPJ. "Afterwards, people thought that while democracy in Japan was important, stability should have priority."

"There's been some change, but nothing at the pace commensurate with the promise," argues Richard Samuels, author of "3.11: Disaster and Change in Japan". A new regulator brought stricter oversight to the nuclear industry. But the LDP remains wedded to nuclear power despite public scepticism. Disaster preparedness has improved. But the same flaws that handicapped the response to the disaster—weak central authority, lack of co-ordination among ministries, poor communication, bureaucratic inflexibility—persist. And the political impetus for reform has dissipated, as the LDP has regained power, the DPJ has disintegrated and apathy has set in.

Miyagi and Iwate, the two other prefectures that suffered most from the earthquake and tsunami, have largely recovered. Fukushima itself has struggled. A small area is still uninhabitable. Kowata Masumi's husband's family had lived for more than 200 years in the same house in Okuma, one of the two towns next to the plant, growing persimmons, weaving silk and brewing sake. It is now in the "difficult-to-return" zone (see map on previous page), subject to 50 times more radiation than is typically considered safe. Former residents are allowed to make short visits in protective gear, but not to stay overnight. Ms Kowata, one of Okuma's town councillors, found a monkey in her living room on one such trip, "wearing our clothes like the king of the house".

For the most part, however, the problem is no longer contamination. Only 2.4% of the land area of the prefecture remains off-limits to residents. Only 36,811 people, or 2.1% of the population, are still unable to return home. Just one worker has died from direct radiation exposure. Cancer rates in the region have not spiked. Ambient radiation in most of the prefecture is comparable with other cities in Japan and around the world. The health risks are much less acute than what was feared in the disaster's aftermath.

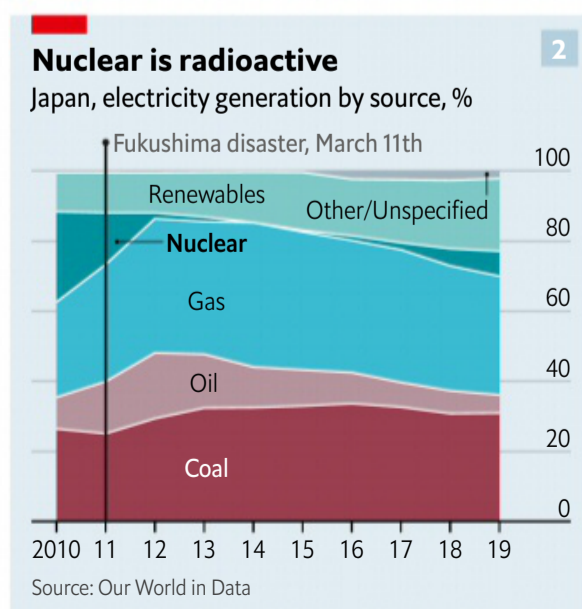
In retrospect, it was the chaotic evacuation that probably harmed public health most. In Fukushima prefecture 2,317 people died as a result of it, mostly because of



disruption to medical care or suicide. That is more than the 1,606 who perished during the earthquake, tsunami and nuclear meltdown themselves. Some researchers argue the government should not have ordered a large-scale evacuation at all, or should have limited it to weeks rather than years.

Yet it would have been hard to tell a fearful population, faced with the invisible threat of radiation, to stay put or return quickly. The meltdown destroyed confidence in experts. The lack of candour from officials in the early weeks and months after the disaster sapped trust in the authorities, pushing citizens to fill the gaps themselves. "There were so many things that weren't convincing, so we decided to get our own data," says Kobayashi Tomoko, an inn-owner and radiation monitor from Minamisoma, a city north of the plant. Even when the government lifted evacuation orders years later, putting an end to compensation payments for residents of those areas, some protested against what they saw as a ploy to force people to return under unsafe conditions. "Sensitivity to radioactivity depends on mindset, it's difficult to treat as matter of policy," says Iio Jun of the Reconstruction Design Council, a government advisory panel set up after the disaster. "There are more emotional elements."

In the past decade the government's ef-



orts at reconstruction have focused on infrastructure and decontaminating land. Official presentations teem with graphics showing rebuilt roads and railways. Fully 96% of the planned public works have been completed. Millions of tonnes of waste from the disaster have been removed, including millions of cubic metres of radioactive topsoil. Recovery, by these measures, is progressing well. The Olympic Games (originally scheduled for 2020, but delayed until this summer owing to covid-19) are meant to be the culmination of the area's rehabilitation. The government has promoted them as the "Recovery Olympics" and plans to begin the torch relay in Fukushima at a stadium that became a base for disaster relief in 2011. The flame will pass through Okuma, Iitate and Minamisoma on its way to Tokyo.

Yet the emphasis on physical reconstruction misses the point. "People's hearts and spirits are not only not recovering, they're being lost even more," laments Sakurai Katsunobu, who was mayor of Minamisoma during 3/11. Rates of depression and anxiety among residents of Fukushima are more than double the national average. Diseases such as diabetes and hypertension have become more common, presumably because of continuing anxiety and disruption. Families have been separated, livelihoods lost. "Real recovery is not about making buildings, not about physical things," says Ms Kowata.

"Who is this infrastructure actually being built for?" asks Mr Sakurai. Many of those ordered to evacuate in the aftermath of the disaster, as well as others who fled the region of their own accord, have stayed away. In the areas where evacuation was ordered, only a quarter or so of the population has returned, mostly the elderly. As elsewhere in rural Japan, the prefecture's population had been falling anyway, dipping by an average of 100,000 people in the nine years preceding the disaster. But 3/11 has accelerated the decline: in the nine years since, the population has fallen by an average of 180,000 a year (see chart 1).

Rebuilding communities has proved far trickier than repaving roads. "Ten years is just the starting point," says Mr Tao of Resurrection of Fukushima. "Only now are villages beginning to be able to think about the future." Many have shifted from trying to get former residents to return towards attracting new arrivals. There have been successes. Near the community centre in Iitate, a group of young artists has converted a former school into studios. In Minamisoma, Wada Tomoyuki, an entrepreneur, runs a co-working space and small-business incubator where most of his partners are newcomers who wanted to escape office-bound city life.

Yet progress is slow. Mr Wada launched Odaka Worker's Base in 2014, hoping to as-

▶ sist 100 new businesses to help tackle local problems; so far, 15 have set up shop. The government touts a higher-tech future along the Fukushima “innovation coast”, a cluster of research and development centres. But most are engaged in projects connected to disaster relief or the nuclear plant’s decommissioning.

The decommissioning itself “casts a heavy, dark shadow over the future”, says Uchibori Masao, Fukushima’s governor. The removal of 900 tonnes of melted fuel from the three reactors that failed—the most radioactive part of the wreckage—has

yet to begin. TEPCO, the utility that owns the plant, thinks it will take 30-40 years, but even that may be optimistic. Last year, the Nuclear Regulation Authority (NRA), the new regulator set up after the accident, reported higher than expected levels of radiation on the temporary caps placed over two of the reactors. Such findings complicate plans for decommissioning. The fate of the decontaminated soil, which has been piled in black bags around the region, remains unresolved too. This year the bags are being taken to “interim storage facilities” in the “difficult to return” zone,

meaning dumps in uninhabitable areas. By law, the soil must be sent outside the prefecture by 2045, but the government has yet to work out where to take it.

The most pressing problem is the contaminated water that has seeped into the plant or has been used to cool spent fuel. There is already more than 1m tonnes of it, and storage space will run out next year. TEPCO filters it to remove all radioactive particles bar one isotope, tritium. The government wants to tip the filtered water into the ocean—standard practice at nuclear plants around the world. Yet fishermen ▶▶

Banyan Asia’s unjabbed arms



Places that were quick to curb covid-19 have been slow to vaccinate

AUSTRALIANS ARE PROUD of their country’s impressive if stringent handling of the coronavirus pandemic: just over 900 deaths to date out of a population of 25m, with a mere eight or so new cases each day. That achievement is one reason why the scene after the men’s final at the Australian Open tennis tournament late last month shocked so many. In her comments at the presentation of the trophy, before both local spectators and a global television audience, Australia’s tennis chief suggested it was a time for “optimism and hope”, with vaccinations “rolling out in many countries in the world”. Australia’s programme was to begin the following day. Yet instead of cheers, her remarks were drowned out by the boos of anti-vaxxers in the crowd.

The deputy prime minister, Michael McCormack, called the behaviour “disgusting” and sought to portray the jeerers as party-poopers. His boss, Scott Morrison, was injected before the cameras with one of the 60,000 shots in the country’s first shipment of vaccines. Most of the rest are for front-line health and quarantine workers. The government promises swift progress, after an admittedly slow start.

Yet reluctance to receive vaccines is an issue. Anti-vaxxers have marched in Melbourne and Sydney. In many countries, vaccine acceptance has risen sharply along with the prospects of getting a jab. But a study by Imperial College London of global attitudes towards covid-19 vaccines found that Australia was one of four out of 15 rich countries in the Americas, Asia and Europe where vaccine acceptance fell between November and January. Strikingly, the other three are also in Asia: Japan, Singapore and South Korea. They too have impressive records handling the pandemic, with just 7,984,

1,612 and 29 deaths respectively. These countries’ relatively slow roll-out of vaccines compared with Britain and America, let alone Israel, may soon turn them from laurel-winners to laggards in the fight against covid-19.

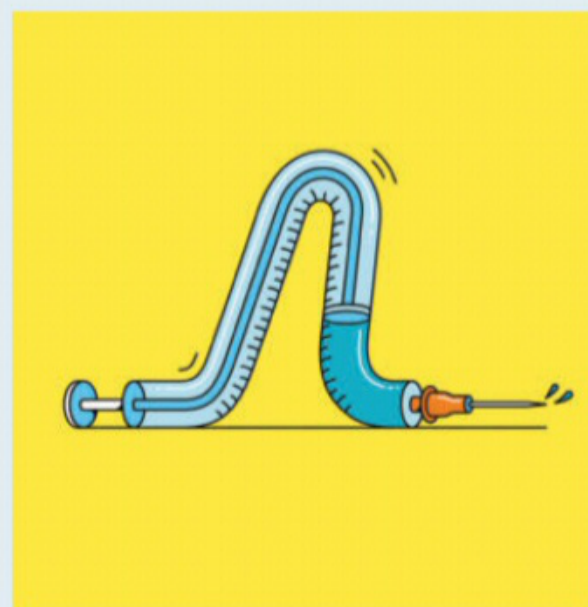
Misinformation, conspiracy theories and distrust of Chinese vaccines have contributed to the hesitancy. But so too, argues Tikki Pangestu of the National University of Singapore, has an awareness that new and seemingly improved vaccines keep appearing. Singaporeans of a certain age say that, given the virus’s ongoing mutations and the possibility that antibodies may not work for ever, they would rather hold off until they really need a jab—and then get the very latest and best. Others worry about possible side-effects. In South Korea half of those polled say they would rather see what happens elsewhere before receiving a vaccine. With cases low and normal life resuming, the risks of delay strike many in Singapore and South Korea as negligible.

This foot-dragging is mirrored by governments. South Korea pinned early

hopes on home-grown vaccines, putting in orders for foreign-made ones only in November. In Japan the government has a rocky history of lawsuits over possible side-effects from measles and mumps shots. It does not want to look as if it is rushing things. In fact, rather absurdly, it has demanded extra clinical trials of covid-19 vaccines on Japanese people specifically as a condition of approval. The vaccination of health-care workers began only last month. The elderly will not get jabs before April. Most of the rest of the population will not start being vaccinated until midsummer. That hardly improves the chances of holding a normal Olympics in Tokyo in July.

Shortages of supply, largely beyond governments’ control, will also cause delays. Singapore’s prime minister, Lee Hsien Loong, warns that there will not be enough vaccines for everyone until the third quarter of the year. It may take until the end of the year to complete the vaccination programme.

Whatever the cause of the sluggish roll-out, it is of greater concern than might at first be obvious considering that the countries concerned have such low infection rates. In contrast to Europe and North America, success in curbing covid-19 means they have virtually no herd immunity. Moreover, Asian governments’ rapid travel bans suggest a high aversion to risk. That is unlikely to change. Even a mooted travel “bubble” between Singapore and Hong Kong is on hold. Dr Pangestu predicts that Singapore, for one, will remain “obsessive” about not quickly reopening its borders, even for inbound travellers with covid-19 “passports”. They are no guarantee that you are not infectious, after all. If Banyan had to bet on when Asian travel will resume, it will not be this year.



▶ and farmers fear this will make people loth to buy their wares. Activists worry that the tanks hold nasty surprises. After years of insisting the water contained only tritium, TEPCO revealed in 2018 that it would have to re-filter most of it, since it had not been treated properly and was more dangerous than had been admitted.

Such episodes have fed mistrust of the government's assurances about public health in Fukushima. The screening of food from the prefecture is thorough and safety standards are high. The Fukushima Agricultural Technology Centre, a government body, tests 100-200 samples a day. Workers in rubber gloves chop up peaches, mushrooms and rice and feed them into devices that detect radiation. The last elevated result was six years ago. Independent monitors also judge local food to be safe. Yet products from Fukushima are still generally cheaper than those from elsewhere.

The enduring mistrust extends to nuclear power in general. Before 3/11 more than two-thirds of Japanese wanted to preserve or even expand it. The government wanted nuclear plants to generate half of Japan's power by the middle of the century. A majority is now against it, including bigwigs such as Koizumi Junichiro, a former prime minister from the LDP, and Kan Naoto, who was prime minister at the time of the disaster. "I had supposed Japanese engineers were very high quality. I thought it was unlikely that human error could cause an accident in Japan," says Mr Kan. "My thinking changed 180 degrees."

The current government has not, however, given up on nuclear power. Abe Shinzo, prime minister from 2012 to 2020, was keen on it, but during this tenure, since most reactors were mothballed for stricter safety inspections, Japan grew notably more dependent on fossil fuels (see chart 2, on an earlier page). To this day only nine of Japan's 54 reactors have been allowed to restart. They provided just 6% of the country's electricity last year. Nearly half of the rest are to be shut down; the others are in various forms of administrative limbo.

The current prime minister, Suga Yoshihide, has promised to make Japan carbon neutral by 2050. So he wants to build more wind farms and solar plants—but also to restart more of the idled nuclear reactors. "Zero carbon by 2050 means we need nuclear," argues Toyoda Masakazu, who chairs the Institute of Energy Economics, a think-tank in Tokyo. Some towns are eager to go nuclear again. "After five or six years, people started thinking about how much risk we can bear in terms of economic growth," says Nose Yutaka, mayor of Taka-

hama, which recently became the first town to approve the restart of a nuclear plant that is more than 40 years old, the standard regulatory lifetime in Japan.

The nuclear industry insists it has learned the lessons of 3/11. TEPCO says that the expectation of perfection, which stifled the reporting of problems, has been swept away. It and other power companies have poured billions of dollars into new seawalls, filter systems and other safety features. Local governments have drawn up proper evacuation plans. "Before Fukushima, it was assumed that if government officials are creating plans, accidents are bound to happen, so no one made plans," Mr Nose says. "Now we have one." The existence of risk is not a reason to abandon a technology, argues TEPCO's Ane-gawa Takefumi: "In ancient times, Prometheus gave us fire, and many people die from fires, but we accept that."

Anti-nuclear activists hold that the risks of using nuclear power in Japan, one of the world's most seismically active countries, are prohibitive. "Using technology that has potential to destroy your society is insane—that's the risk we're talking about," says Shaun Burnie of Greenpeace, a pressure group. The sudden promotion of nuclear power as climate-friendly strikes many in Fukushima as cynical. "We shouldn't have to choose between climate disaster and nuclear disaster," says Muto Ruiko, a local anti-nuclear campaigner.

There is plenty of scope, anti-nuclear campaigners point out, to generate more renewable energy. After 3/11 the government introduced incentives for renewables and liberalised the electricity market. Though renewables now provide more than 20% of Japan's power, their share would be higher still, argues Iida Tetsunari of the Institute for Sustainable Energy Policies, if the regional retail monopolies' grip on the grid was loosened further and connections between regions expanded. He

says a reform that came into force last year, obliging the big utilities to manage generation and transmission as separate units, has had little effect. "Local utilities people still use the same name-card, the same email address," says Mr Iida. "The grid must become more independent."

Plans released late last year foresee 50-60% of generation coming from renewables in 2050, with nuclear or fossil-fuel plants with carbon-capture technology providing the remainder. A clearer picture is expected this summer, when the Ministry of Economy, Trade and Industry releases a new triennial strategy for power generation. The minister, Kajiyama Hiroshi, has expressed support for more nuclear power. Even those who favour a renewable-powered Japan in the long term may accept a handful of restarts now, if that means closing coal-fired plants more quickly. Getting new reactors built would be much trickier, however, seeing that most Japanese people are against nuclear power.

In either case, oversight will fall to the NRA, which was set up specifically to prevent the sort of chumminess with utilities that allowed the failings at Fukushima Dai-ichi to go undetected or uncorrected. Fuke-ta Toyoshi, the NRA's chairman, is careful not to get embroiled in politics: "We believe we have to be independent of discussions in energy policy."

Unfortunately for the NRA and for policymakers, one seismic change that has endured since 3/11 is a loss of faith in institutions in general. A yearly survey by Edelman, a public-relations firm, found that the share of Japanese expressing trust in their government plunged from 51% before the disaster to 25% after. It now stands at 37%. "This is the key problem: the loss of trust," says Azby Brown of Safecast, an NGO in Tokyo that spearheaded independent efforts to monitor radiation after the disaster. "Trust is not a renewable resource. Once you lose it, that's it." ■



A dirty secret, but not a little one

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Dig deeper For more from Japan ten years after the tsunami, read "The girl from Fukushima" in our sister publication *1843 magazine*: economist.com/1843/Fukushima



Domestic security

Scraping the bones

China's law-enforcement agencies are undergoing their biggest purge in more than two decades. The aim is to root out the corrupt and politically disloyal

FOR MANY members of China's 3m-strong domestic-security forces, these must be worrying times. On February 27th the Communist Party declared the start of a long-expected purge of their ranks. It will involve, say officials, "turning the knife-blade inward" to gouge out those deemed corrupt or insufficiently loyal to the party and its leader, Xi Jinping. More than eight years into Mr Xi's iron rule, the party appears to wonder whether a vital bulwark of its power is entirely trustworthy.

State-controlled media have described it as the biggest such campaign since the late 1990s within the domestic-security system, which includes the police, the secret police, the judiciary and prisons. It is due to last for about a year. The aim is to ensure that these agencies are "absolutely loyal, absolutely pure and absolutely reliable". Officials say the campaign will be like the "Yan'an Rectification" of the early 1940s. That was when Mao—then the leader of a communist insurgency—staged a sweeping and brutal purge of the party's ranks to consolidate his control. Such lan-

guage suggests that many heads will roll as the party attempts to clear the "dense miasma" surrounding the security apparatus, cure it of "chronic illness" and ensure it remains "surnamed Party" (meaning as loyal to the party as if to a family member).

It is remarkable that such a campaign is deemed necessary. After he took over as China's leader in 2012 Mr Xi launched the country's toughest battle against corruption in decades. Hundreds of thousands of officials were punished, including powerful people with security backgrounds. One of them was Zhou Yongkang, a former member of the Politburo Standing Committee. Before Mr Xi assumed power, Mr Zhou had overseen the entire law-enforcement apparatus. In 2015 he was sentenced to life in prison—ostensibly for graft and leaking state secrets. Officials later al-

leged—without giving details—that he had engaged in "political plotting", too. It is widely believed that he was an opponent of Mr Xi. But on February 3rd party investigators said the police had failed to eliminate Mr Zhou's "pernicious influence" within the force and had not followed the party line "satisfactorily enough".

Several high-ranking security officials have been snared by the party's anti-corruption agency in the past few months. The most prominent is Gong Daoan, then Shanghai's police chief and one of the city's deputy mayors. Last August he became the third policeman with a rank equivalent to that of a vice-minister to be placed under investigation since the start of 2020. The following month Mr Gong was stripped of his posts. On March 1st the government announced that he had been arrested and his case referred to prosecutors.

The charges against Mr Gong include abuse of his positions to promote his and others' business interests, corruption related to the approval of appointments, misuse of his official car and frequent attendance of banquets that raised questions about his impartiality. But Mr Gong's alleged political offences are listed first: forming factions within the party and "completely lacking the four awarenesses", ie, of the need for loyalty to the party and to Mr Xi, and for compliance with their orders and total adherence to the party's line. Such accusations will probably be levelled at more police chiefs during the upcoming ▶▶

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► purge. The loyalty of the security agencies “directly affects the party’s position at the helm of state and the continuance of political stability”, said an official report on a meeting of party bosses that kicked off the nationwide campaign.

Its launch was heralded in July with trial runs in a handful of local police forces, courts and prosecutors’ offices, as well as in two prisons and one local state-security bureau (home to the dissident- and spy-hunting secret police). In charge of this experimental phase was Chen Yixin, a senior security official who appears to be a troubleshooter for Mr Xi—in February last year, in the early days of the covid-19 pandemic, he was sent to Wuhan to help supervise efforts to crush and contain the central city’s massive outbreak of the disease. Mr Chen said “education and rectification” of the security forces was a task of “urgency and extreme importance”. He described the campaign as “scraping the bones to remove the poison, and draining away the filth to bring in fresh water”. Police at the time were reaching the end of a three-year campaign against criminal gangs and their “protective umbrellas” within the government. That effort resulted in the smashing of more than 14,700 criminal groups. But apparently it did not succeed in purifying the police.

Assuming the campaign will follow the pattern of last year’s experiments, participants can expect to spend a month studying the kind of behaviour that is expected of them. They will then perform “self-examination” and be required to admit to any wrongdoing. These confessions will be compared with other submissions, including complaints from members of the public. High-level teams will be dispatched from Beijing to ensure the job is done properly. Among the 16,000 people who were involved in the trial phase, more than 2,200 were disciplined, including 39 who were formally charged. If punishments are meted out at the same rate nationally, then the “overall reckoning”, as one newspaper described the purge, may result in thousands being jailed and hundreds of thousands punished in other ways.

The campaign may benefit Mr Xi. Late next year he will preside over a five-yearly party congress, which will mark a critical juncture of his leadership. Normally he would be expected to step down at this event, having served as general secretary for a decade. But he shows no intention of doing so. There have been few obvious signs of opposition to granting him another five-year term. The contrast between China’s successful control of the coronavirus and the West’s fumbling response may have further strengthened his hand. But by tightening his grip on the security forces he can be even more certain that no one will dare to oppose him. ■

Dissent in Hong Kong

The law kicks in

HONG KONG

The territory will soon find out how its new security law works in court

SINCE CHINA imposed a draconian security law on Hong Kong last year, protests in the city—already dampened by pandemic-related controls—have been rare. But on March 1st hundreds of people gathered outside a court to demonstrate against the largest case so far related to the security bill. They held banners calling for the release of “political prisoners” and chanted slogans that were popular during the unrest that engulfed the territory in 2019. Students at a primary school nearby stood outside their classrooms, shouting in solidarity. It was a rare act of defiance in a city that, to many residents, feels crushed.

A day earlier, 47 people had been charged for alleged misdeeds as part of the case. They included some of Hong Kong’s best-known pro-democracy activists, such as Leung Kwok-hung, a veteran campaigner commonly known as “Long Hair”; Lester Shum, a politician; Benny Tai, an academic, and Joshua Wong, whose then-teenage face became emblematic of the “Umbrella Movement” of 2014 (he is already in prison for a protest-related offence). They have been accused of crimes such as conspiracy to commit subversion by plotting to overthrow Hong Kong’s government.

The case relates to an informal primary ballot that was held last year to select pro-democracy candidates for elections to the Legislative Council. This sensible-sounding effort was seen by the government as an attempt to gain control of the council

and paralyse its work. (The elections were due to be held in September but were postponed for a year, purportedly because of the pandemic.) If convicted, the defendants face sentences of up to life in prison.

The proceedings that began on March 1st relate to applications for bail—the trial itself may not begin for several more weeks. Under the security law, there is a presumption that bail will be denied, so even this stage has involved protracted debate in court and a gruelling ordeal for the defendants. They have had to endure sessions lasting many hours that have eaten into normal times for meals and sleep. The physical toll has been evident—several of them have received hospital treatment. The prosecution argues that defendants could pose a threat to national security if given bail. Soon after *The Economist* went to press, the court was expected to rule on whether to remand them in custody.

No national-security trial has yet been concluded. So this one will be watched for signs of how the new law—which has the hallmarks of Chinese mainland-style legislation, with its vaguely defined political terms—works in a judicial system steeped in British legal tradition. Dominic Raab, Britain’s foreign minister, has described the case as “deeply disturbing”. America and the European Union have called for the release of the 47 activists. On March 2nd Hong Kong’s Department of Justice said that prosecutors’ decisions had been made “without political considerations” and no one should interfere in them. But a few days before the 47 were charged, Xia Bao-long, a central-government official who oversees Hong Kong affairs, had said that “anti-China elements” should be “severely punished under the law”. He had named two members of the group: Mr Wong and Mr Tai. The Communist Party may be an exception to Hong Kong’s rule. ■



Testing the new boundaries

Chaguan | Red tourism in Xi's China

A formerly disgraced place of Maoist pilgrimage plots a comeback



IN ITS HEYDAY in the 1960s and 1970s, the village of Dazhai was called a place of miracles. Millions of revolutionary pilgrims came to hear how local peasants had carved terraced grain-fields and reservoirs from its rocky hillsides, armed with little more than hand tools and love of Chairman Mao Zedong. Dazhai's barely literate Communist Party secretary, Chen Yonggui, was summoned to Beijing and elevated to the Politburo with the rank of vice prime minister. Back then Liang Jiwen was a schoolboy, the son of a Dazhai official. He recalls dignitaries arriving each day in his corner of Shanxi province, in the dust-dry Taihang mountains. He and classmates would wave flowers and sing red hymns at the roadside. "We did not get much studying done," he recalls.

Then came the fall. In 1980, as part of a broader purge of ultra-leftists that followed Mao's death in 1976, official Communist Party newspapers called Dazhai a fraud. Investigators charged that its miraculous grain harvests were invented. They described massive cash subsidies channelled to the supposedly self-reliant village, and thousands of soldiers sent to build its engineering marvels.

Now Dazhai is trying for a third act. Local officials have drawn up plans to include their village in a China-wide official campaign to promote "red tourism" and teach party history to the masses. They are pinning particular hopes on their former "people's commune", a well-preserved complex of cave dwellings built in 1966. An evocative place, its entrance gate still decorated with Maoist slogans, it was admitted to a national register of protected sites in 2013. It is still closed to the public, but plans are afoot to buy out current residents. Among them is Jia Cunlian, a widow who has lived in a cave-home there for 30 years. She remembers Chen, the Mao-era boss, as "the best of people", who shared exotic gifts that he had received with villagers, such as melons or raisins. Still, she prefers the present day, saying: "Life was hard back then."

Since the 1990s, most visitors to Dazhai for tourism have been elderly. The village has tried to woo them with nostalgia: family-owned restaurants serving rural dishes, including tree-bark noodles once eaten during times of famine. But local leaders have grander ambitions now, involving what would amount to Dazhai's political rehabilitation. To achieve that, officials are willing to offer doses of candour. Shi Yonghong, who heads the cultural relics

bureau of the surrounding county, Xiyang, admits that Mao's call to "Learn from Dazhai" led to excesses by the mid-1970s, such as when communes in other parts of China dug terraced fields out of flat plains in their anxiety to obey the chairman. Mr Shi blames officials in these places for misinterpreting the policy, adding that Dazhai never asked to be a national model. But even that grudging admission of long-ago problems is offset by his claims that Dazhai not only fed itself during the hungriest years of the 1960s, but "sold surplus harvests to the state". He offers no further details to back up that long-debunked assertion. Instead, he talks vaguely but grandly about the "Dazhai spirit", which he defines as hard work and not asking for government handouts.

In an office thick with cigarette smoke, overlooking a snow-covered village square, Dazhai's deputy party secretary, Li Huailian, chimes in. She describes the village's story of hardships as a way to understand what President Xi Jinping means when he tells gatherings that the good times of today did not fall from the sky. Dazhai is prosperous because its people have always been diligent and followed party orders, she declares. "Where the party tells us to go, we go." At first hearing, that is a rather insipid summary of her village's tumultuous past. But these local officials know what they are doing. They want Dazhai to be a celebrated red-tourism site, promoted alongside revolutionary bases on the route of the Long March. To achieve that, they need to grasp the role that history plays in the Xi era. To Mr Xi and his team, the past exists to provide reasons to admire the party, not to furnish evidence for judgments about its rule.

Not just popes who like to claim infallibility

Real history is dangerous stuff. Past adulation of Dazhai and of its boss, Chen—a zealot who ordered 141 political executions and said that revolutionaries could grow grain on sandy beaches—is a reminder that to Mao, party rule was a faith-based project. It often put ideology above expertise and common sense, with horrific results. Dazhai's denunciation in 1980 reflected moves by China's then-paramount leader, Deng Xiaoping, to create a rational, technocratic state. Deng's gamble was that the party did not need personality cults to maintain support. Instead, he sought a mandate based on making China strong and prosperous. To make a case for market-based reforms that he believed vital to that project, he was pragmatically willing to allow Maoist mistakes to be named.

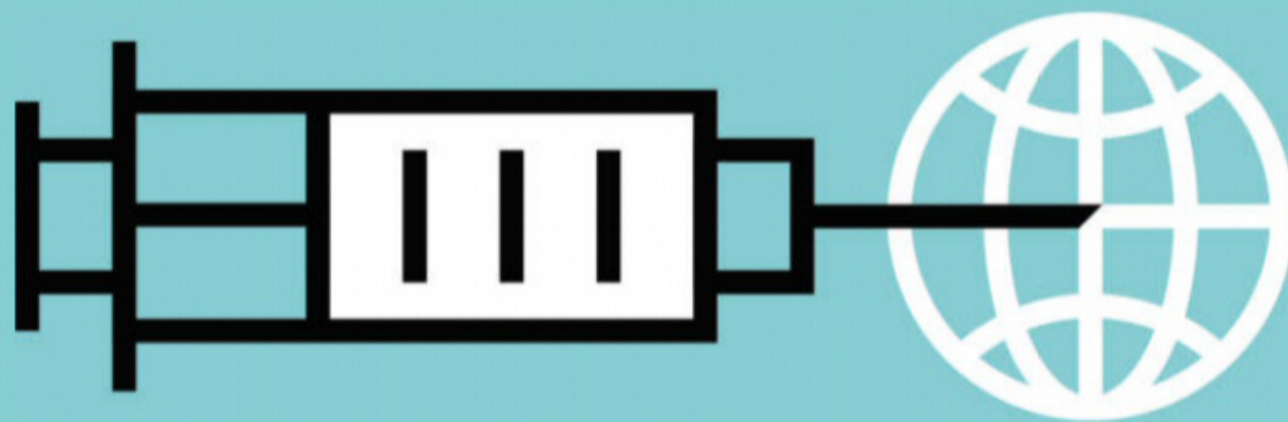
Mr Xi favours a synthesis of these two approaches. As the party approaches its 100th anniversary in July, its leaders urge the public to contrast China's economic rise and social stability with economic decline and political chaos in the West. That is a Deng-style appeal to performance legitimacy. Yet that co-exists with boosterish talk of "the brilliant achievements and valuable experience accumulated by our party". Maoist disasters are not mentioned. In the Xi era, when Chinese scholars dwell on past mistakes they are guilty of "historical nihilism", a career-ending offence. When foreigners remember old horrors, the charge is that they seek to overthrow Communist rule. Last month Mr Xi gathered senior leaders to stress the importance of studying party history correctly, to pass "red genes and revolutionary fire" to later generations.

Mr Xi seeks a mandate that is both pragmatic and faith-based. The common thread is absolute loyalty. By the logic of the Xi era, the Chinese are able to benefit from wise party rule today because they always trusted the party, even when it erred. Objectively, Dazhai does not deserve to be a place of pilgrimage again. Still it may happen. In China, the past is what the party needs it to be. ■

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Debt diplomacy

Here we go again

LUSAKA

For poor countries, reaching agreements on debt restructuring is more complex than it was

ON THE MORNING of November 13th last year Zambia's vice-president told parliament, "This country will not default." Hours later the inevitable happened. Having destroyed its relationship with the IMF, struggled to provide clear data on its borrowing from China and failed to win a reprieve from bondholders, Zambia missed a deadline to pay interest and defaulted on its debt. Lenders could only shake their heads in bemusement.

For some poor countries like Zambia, a debt crisis has always been the story of a

chaotic and corrupt government that has borrowed carelessly. But in the more complex creditor landscape of today, defaults can also, more than ever, be about struggling nations stuck in the web of diplomatic feuds that bind their creditors together. Each lender enters restructuring talks with the same preoccupation: is someone else getting a better deal? No one wants to be first to give concessions and there is little advantage in showing your hand. More than financial data or legal frameworks, it is these power struggles that have come to

define restructuring negotiations.

The pandemic has left many countries struggling to repay their debt. As well as Zambia, five others—Argentina, Belize, Ecuador, Lebanon and Suriname—defaulted last year. For some, health-care and social spending rose just as the global economy tanked. In other cases, like Zambia's, covid-19 provided an excuse for a profligate government to default. Others could run out of money in the months ahead.

The last time a large number of poor economies were crumbling under the weight of government debt, around the turn of the millennium, the group of creditors was smaller. It included multilateral organisations like the IMF, a handful of commercial banks, and rich countries like Britain and America operating in unison as the "Paris Club". An unusual mix of other players, including Bono, an Irish rock star, and Pat Robertson, an American televangelist, generated widespread support for debt forgiveness, but even then it was difficult. The resulting programmes—the Heavily Indebted Poor Country (HIPC) and Multilateral Debt Relief (MDRI) initiatives—have saved 37 of the world's poorest countries over \$100bn.

Drop the debt again?

Things are more complicated now. Poor nations have borrowed from new lenders. China and Saudi Arabia have lent a lot of money to developing-world governments. And as yields on rich-country debt have plummeted, poor governments have been able to sell foreign-currency bonds. The average portion of emerging-market public external debt owed to multilateral institutions dropped from 43% in 2008 to 34% in 2019, according to World Bank data crunched by Fitch Ratings, while the share for commercial lenders (largely bondholders rather than banks) jumped from 29% to 45%. Meanwhile, bilateral lending fell.

With the creditor landscape transformed, lenders are looking at recent negotiations, including those in Ecuador and Zambia, for signs of how future resolutions might take shape. Two new power struggles have emerged.

The first is between Chinese lenders and everyone else. The second is between Wall Street and Washington, where official-sector lenders like the IMF and the American government are based. For the 50 most-indebted recipients of Chinese lending, the average stock of debt owed to China reached 15% of GDP in 2017 from less than 1% in 2005, according to data from a group of experts including Carmen Reinhart, a Harvard academic now at the World Bank. Because of the political competition between Beijing and Washington, this lending is—often unjustifiably—framed as a devilish ploy to cripple poor economies ▶▶

and grab strategic assets. People think of China “in almost conspiracy-theory terms”, says Meg Rithmire of Harvard Business School. Governments in Zambia and Ecuador have been renegotiating their debt with one eye on elections this year. In a sign of just how contentious the issue is, the front-runners in the poll in Ecuador, which also owes a lot to China, are running on opposing economic plans: Andrés Arauz promises to scrap the existing deal with the IMF, whereas Guillermo Lasso wants to rebuild investors’ trust.

Beyond suspicion and rivalry, Chinese lending has specific characteristics that complicate talks. The first step in any restructuring is calculating how much a country owes and to whom. That is a thorny business when China is involved. What analysts refer to as “Chinese lenders” includes a variety of institutions, such as state-owned enterprises and policy banks, which act on behalf of the government. “They’re not all on the same team,” explains Deborah Brautigam of the China Africa Research Initiative at Johns Hopkins University.

Keeping track of all this lending is tricky, too. Much of it goes undeclared, and confidentiality clauses prevent governments from sharing the terms of their loans. That has been a stumbling block in Zambia. To offer support, the IMF needs information on loans from China that have been agreed upon but are yet to be handed out, meaning they do not show up in public accounts. Foreign bondholders, who have lent a total of \$3bn, have refused to provide a reprieve for fear that their funds will be used to pay off Chinese lenders.

Everyone is seeking clues about the extent to which Chinese lenders will join coordinated debt negotiations. So far, they seem eager to look like they are engaging with other creditors. But they are changing their ways gradually, following the Chinese proverb and “crossing the river by feeling the stones”. Policy banks have deferred payments on loans to the Zambian and Ecuadorean governments, but details are patchy. Similarly, China joined the G20 in its Debt Service Suspension Initiative (DSSI) announced last year, to pause repayments on bilateral debt for 73 of the poorest nations, and in its “common framework”, which provides longer-term help. But it has curbed the power of the DSSI by treating some policy bank loans as commercial, so they are not part of the standstill.

As for the other main power struggle, it pits official lenders like the IMF and creditor governments, which have a long history of lending to the developing world, against commercial lenders that make money doing the same.

Here, too, trust is an issue. Abebe Selassie, director of the IMF’s African department, points out that one of the biggest re-

cent scandals around undisclosed loans involved European banks, including Credit Suisse. Some \$2bn of questionable debt that was taken on by state-owned enterprises in Mozambique in 2013 and 2014 eventually crippled the local economy and forced the government into default. “Transparency is about all lenders, not just China,” says Mr Selassie.

More worrying still is disagreement on the responsibility a fund manager sitting in London or Hong Kong has to a poor-country government. Private-sector lenders have come under pressure to offer concessions, even to solvent governments. Some bondholders, like Yerlan Syzdykov at Amundi, say they have a fiduciary duty to generate returns for clients and that it is not their job to “provide financial aid” to poor governments. “We’re not charities,” he says. Besides, renegotiating foreign-currency bonds might not be in the interest of poor economies if it leads to a credit downgrade, making it more expensive to raise money on international capital markets in future.

Egos involved

Bondholders nowadays are a disparate group. Some funds hold on to debt for a while; some are opportunists, buying bad debt when prices nose-dive. They all have different goals, which is why they have split into multiple committees in recent talks, including those in Argentina. The same fund managers pop up in all emerging-market debt restructurings, too. There are big personalities involved and personal feuds linger.

A government trying to restructure its debts needs not only to get all lenders on-side but to do so in the right order. The Paris Club will negotiate only once a country has an IMF programme in place and demands debtor countries ask other lenders

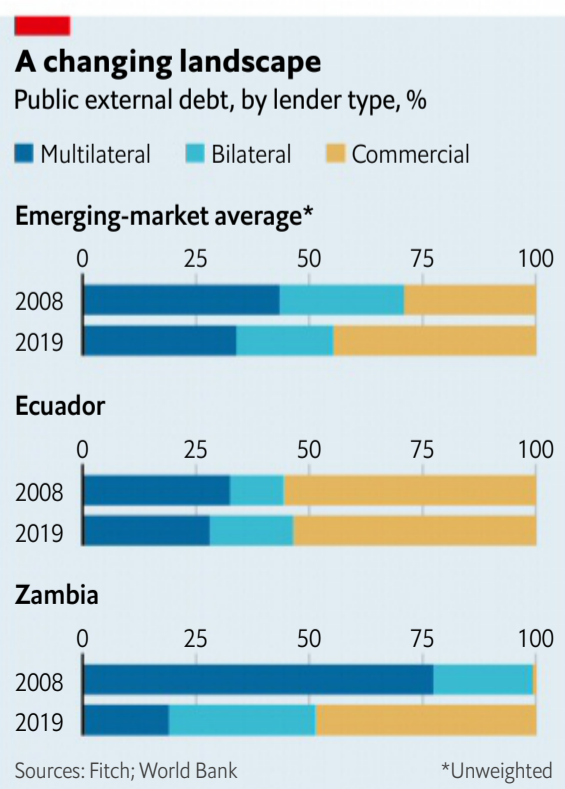
for concessions comparable to their own. That is why Iraq, with vast oil reserves and foreign troops on the ground, began negotiations with the rich-country group before other lenders, winning a 90% reduction (in present-value terms) of its Saddam-era debt stock that it could then ask other creditors to match. A country that lacks geopolitical clout is unlikely to get an easy ride from bilateral lenders and might follow a different strategy. “This is a major tactical question for a sovereign that has both Paris Club and commercial debt: what is the right sequence?” says Lee Buchheit, a lawyer who specialises in sovereign debt.

The key to breaking the deadlock between various creditors is often the IMF. Other lenders are more willing to give a government a break when they have data, an economic plan and the promise of supervision from the Fund. “What you generally want is an honest broker,” says Jan Dehn at Ashmore Group, an emerging-market investment manager. In the case of Argentina, the IMF struggled to play that role because it was one of the creditors seeking repayment.

As for Ecuador’s restructuring last year, which was wrapped up in a matter of months, it was crucial that the government had kept up good relations with the IMF. Its request to postpone \$800m in coupon payments was conditional on thrashing out the beginnings of a new deal with the IMF. Over 90% of bondholders agreed to the pause and then to a restructuring when the time was up.

Ecuador, a serial defaulter, had some experience navigating its creditors. Not so with Zambia, which sold its first foreign-currency bond as recently as 2012. It wrecked its relationship with the IMF when it kicked the Fund’s previous representative out of the country in 2018. The only reason for optimism now is that Zambia’s new IMF representative flew to Lusaka in December, followed soon after by Mr Selassie, raising hopes that a new programme might break the deadlock.

The fact that the IMF team made the trip points to a final complication hanging over debt talks right now: travel bans. Those officials managed it, but it will be a while before all lenders can meet in person. Hans Humes, a big cheese at Greylock Capital, still cringes as he recalls the day his three-year-old daughter burst into the room during online negotiations over Argentina’s debt, keen to show her drawings to the bankers at Lazard and the Argentine minister for the economy, Martín Guzmán. Mr Humes hankers for the day he can get around a table with his counterparts in a more professional setting, where he can read their body language and sidle over to old allies for an uninterrupted chat. “There is no equivalent to taking a break and having a coffee,” he muses. ■





Vaccine-making

Racing ahead

One firm. One year. One billion shots or more. Can India's Serum Institute do it?

ON MARCH 5TH 2020 Mumbai's horse-racing season culminated with the Poonawalla Breeders' Multimillion, a day-long extravaganza dominated by India's first family of the sport, the Poonawallas. Triumphs at the track were accompanied by news reports on the Bollywood lifestyles of Adar Poonawalla and his wife, Natasha, whom *Elle* magazine described as "India's first lady of fabulousness". Only cursory attention spilled over to the couple's day job running Serum Institute of India, the press-shy vaccine-maker at the root of the family fortune.

A year on it is the company, not its flamboyant owners, that is making headlines. As the covid-19 vaccination drive encounters production glitches in Europe, hits distribution snags in America and faces a geopolitical scramble for supply everywhere, Serum Institute has emerged as the one firm apparently able to ramp up production fast and export the doses without courting controversy. By the end of the year, Mr Poonawalla says, it will add 1.5bn covid-19 shots to 1.3bn-1.5bn doses against

diseases from measles to tuberculosis that it already produces annually. On February 23rd it dispatched the first mass shipment, of 70m shots of the Oxford-AstraZeneca vaccine, to India and two dozen other poor countries in the COVAX vaccine-sharing programme. On March 1st Canada said it will procure 500,000 doses from the company. The relatively small family concern, which entered last year with annual revenues of \$735m and a workforce of 6,000, is

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becoming mission-critical to the global fight against the coronavirus.

Mr Poonawalla's plans are ambitious, to put it mildly. He wants to raise monthly production of the Oxford vaccine from the current 60m-70m to 100m by April. That month the company will start churning out 40m-50m of a shot developed by Novavax, an American biotechnology firm, to build up a "large stock" as it undergoes accelerated review by a number of global regulators. By late summer Serum Institute expects to be making another vaccine, by SpyBiotech, a British startup. In early 2022 it hopes to be producing a one-dose nasal vaccine being developed by Codagenix, another American biotech firm.

Mr Poonawalla estimates that until rivals' new capacity comes online in the autumn, his company's output will account for perhaps 40-50% of the world's supply. Unlike Pfizer, an American drug giant which recently upped its production goal from 1.3bn to 2bn doses this year, Serum Institute's shots are cheap and do not need to be stored at ultra-low temperatures. They will inoculate swathes of the poor world.

Some of the factors behind the company's rise to prominence, like the pandemic and scientists' rapid response to it, have been beyond its control. But Serum Institute has also placed bold bets that run counter to the traditional process of making vaccines, in which investments in capacity and distribution follow years of research, then more years of clinical trials for ▶▶

▶ safety and efficacy. A brief conversation last April, between Mr Poonawalla and his father Cyrus, Serum Institute's founder, resulted in a decision to start producing the Oxford vaccine before any clinical trials had begun.

It is the latest daring coup by the Poonawallas. In the 1960s Cyrus turned his horse-breeding business into one that used retired steeds as living vessels to create antibody serum for treatment of snake bites, tetanus and other scourges. Forty years later his son, who has been chief executive since 2011, has added 165 countries as customers (often while courting Natasha on holidays). International sales now account for 70% of the firm's total. In December Serum Institute released the first vaccine to be fully developed in India, against a variant of pneumonia which kills 68,000 Indian children a year.

The company's initial investment of \$80m in capacity to produce the untested Oxford shot came from its billionaire owners' own pocket—a tidy sum next to the previous year's \$46m in capital expenditure. Since then Serum Institute has received a further \$800m: \$270m from the Poonawallas, \$300m from the Bill & Melinda Gates Foundation, the world's biggest charity, and the rest from prepayments by governments, including those of Bangladesh and Morocco.

The privately held firm will not say how much of that money has already been deployed. But Mr Poonawalla says it has doubled production capacity. It could do this quickly, he adds, thanks to a strategy of installing "excess capacity ahead of demand". For decades it had been adding a new building each year; one that was ready to go shortly before the fateful chat between father and son was immediately repurposed for the covid-19 effort.

A long-standing collaboration with Oxford and Novavax as part of an effort to create a malaria vaccine allowed Serum Institute to secure their recipes early. Deep relationships with suppliers of everything from glass vials to expensive "bioreactors" for the production of biological substances have helped smooth procurement. Serum Institute has hired 1,000 new employees, increasing its workforce by a sixth. Another 500 construction workers are putting up new buildings with higher production capacity to add to the 30 or so that the company has erected over the years.

At the current pace, Mr Poonawalla thinks, it will take at least two years for the global supply of covid-19 jabs to meet demand. It could take less if the world's regulators co-ordinated more closely for the duration of the crisis, he ventures. Until then Serum Institute expects to be selling

the jabs more or less at cost, which means about \$3-5 a dose for the Oxford vaccine. After that, margins will eventually rise. "This situation will last for a long time and there will be future demand," Mr Poonawalla predicts. Covid-19 looks certain to become endemic in many parts of the world, with annual vaccination drives akin to those for influenza becoming the norm. His firm's output will peak at 600m-700m doses a year for each of the four vaccines it is currently eyeing, he says.

The pandemic will leave vaccine-making more prominent than ever before, Mr Poonawalla believes—and much more crowded. This will inject competition into what most drugmakers consider a thankless volume business with considerable capital outlays. A fire earlier this year at one new building sent a shudder down the spines of the world's covid-responders until the company assured them that the accident, which affected a production line for a tuberculosis jab, will not hurt the pandemic effort. Although the bet on the Oxford vaccine has paid off, and the one on Novavax looks likely to, Codagenix and SpyBiotech are not yet shoo-ins. And vaccine nationalism could stymie exports from India or imports of ingredients and kit.

Mr Poonawalla nevertheless remains confident that his firm will maintain its leading position. In contrast to big pharma, which spends billions on marketing costly medicines, it sells its vaccines chiefly to national health authorities, which prize low prices and reliable supply above all. Those have always been Serum Institute's strong suits. And the Indian company's remarkable response to covid-19 has bought it more global goodwill than any advertising campaign could hope to. ■

Business and covid-19

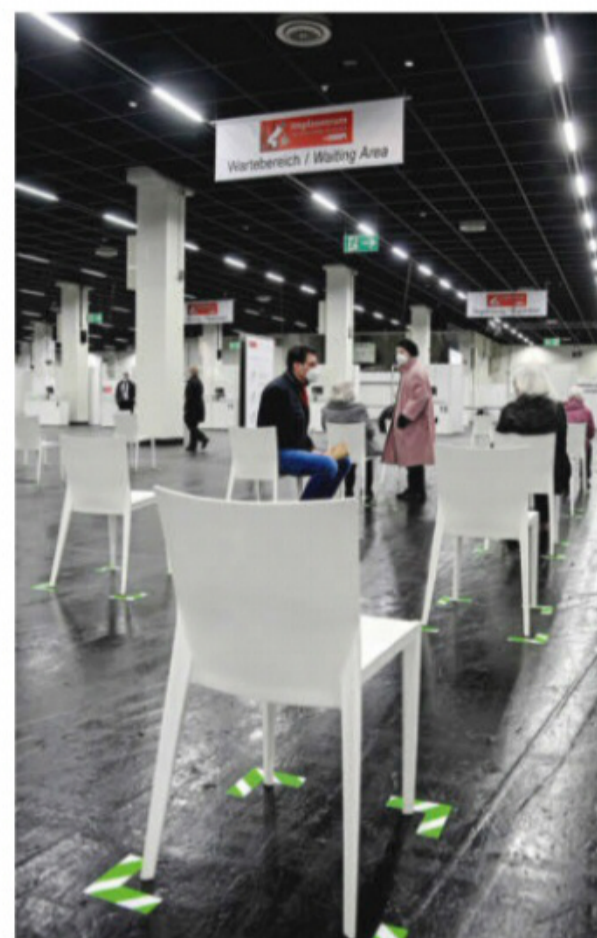
DAX vaxxers

BERLIN

Companies take charge of Germany's vaccination drive

GERMANS ARE used to being top of the class. Early in the pandemic, when Germany controlled its outbreak better than most of the West, they felt they were. In vaccinating citizens against covid-19, by contrast, the country has been a laggard. One in 20 has received a shot, compared with nearly a third of Britons, a sixth of Americans and, as *Die Welt*, a daily, recently grumbled, even a tenth of Moroccans.

German bosses are losing patience. Many workers at the industrial firms that dominate corporate Germany are vulnerable to covid-19 because factory or construc-



Seeking a turnaround specialist

tion jobs cannot be done from home. Nearly all companies in the DAX 30 blue-chip stockmarket index, as well as countless CEOs of smaller firms, are therefore preparing to launch their own immunisation drives. They include BASF and Bayer (in chemicals), BMW and Volkswagen (car-making), Deutsche Wohnen and Vonovia (property development) and RWE (energy).

The vaccines will come from the government, which has the doses but apparently not the capacity to get them quickly into arms. Firms are buying ultra-cold freezers for shots that need such storage. The jabs will be administered by company doctors. Germany has between 15,000 and 20,000 of them (not counting nurses), many more than other European Union countries, America or Britain. About one-third of them are employed directly by firms and the rest run practices that serve employers in their area.

Anette Wahl-Wachendorf of vDBW, an association of company doctors, hopes that from April such medics will be able to dispense jabs alongside family physicians and 400-odd public vaccination centres. They may reach perhaps 45m employees and their relatives, she reckons. That is more than half of all Germans.

"As soon as we get the vaccine, we will get started," promises Rolf Buch, boss of Vonovia. His firm has already set up centres that will, starting this month, test employees who wish to return to the office for the virus. These venues will be used to vaccinate its 10,000 employees and adult members of their immediate families, in keeping with official guidelines on who gets priority.



For an interview with Adar Poonawalla visit economist.com/serumpod

Bartleby A shot in the dark

How far should firms go to get their staff vaccinated?

THE PANDEMIC is throwing up a new set of ethical issues for businesses. The premise of “stakeholder capitalism” is not just that firms should consider the interests of employees and customers, as well as shareholders. It is that, by doing so, everyone gains; shareholders will prosper if workers and customers are treated decently. But the pandemic may put different groups at odds. For example, customers may want companies to insist that all employees are vaccinated, while not wanting the same rule to apply to themselves.

It might seem as if shareholders would want as many employees to return to work as possible, few potential customers to be excluded, and interactions in, say, shops and restaurants to be as free from restrictions as possible. But if a company gets a reputation for being an unsafe place to work, or for customers to visit, the effect on long-term returns could be significant. The perception of fairness is also essential. Woe betide the executive who jumps the queue, as in the case of Mark Machin, a Canadian pension-fund boss who travelled to the United Arab Emirates to get the jab. (He swiftly resigned.)

Companies are not just trading off safety and personal liberty. They risk discriminating against those who have yet to gain access to the vaccine or who, for religious or medical reasons, are unwilling or unable to be jabbed. And they do not have complete freedom of action. The legal situation will vary from country to country but it seems likely that, in many jurisdictions, companies will be able to insist on a vaccine mandate only for new employees.

The question of vaccination is particularly pressing in health care. One might hope that medical workers would appre-

ciate the need for it. Yet some health-care personnel may feel that having had covid-19, as many have, negates the obligation. Laura Boudreau of Columbia Business School in New York observes that, in this type of industry, “there is a duty for the employer to try to identify safe roles that the staff can play, and if not, to provide information to customers about whether there are unvaccinated staff in the role.” In other words, unvaccinated staff may end up being kept away from vulnerable patients.

Rules in other industries often lack consistency. Early in the pandemic, cruise ships helped to spread the disease. The Saga cruise line, which targets elderly travellers, is now insisting that passengers produce proof of vaccination, but makes no such demand of the crew. That makes sense. The passengers will largely be drawn from the rich world, where the elderly have been first in the queue for jabs. The crew will be younger and often from poorer countries. In both cases vaccines will have been harder to obtain. However, the industry is not taking a



consistent approach. Swan Hellenic is insisting on vaccines for crew, not passengers. Victory Cruise Lines has made a jab mandatory for both groups.

No vaccine is 100% effective. It is not yet clear whether people who have been vaccinated can still transmit the disease to others. So where staff come into contact with customers, companies may insist on social distancing or mask-wearing until case levels drop substantially. Even then, employees may catch the virus from each other.

Later, companies will have to consider what they should do when vaccines become more widely available. Some staff may have been unable to get a vaccine, because they have a medical condition (such as pregnancy) that excludes them. Do companies have a duty of care to protect such employees from colleagues who have refused to take the jab on principle?

In the case of most companies, Ms Boudreau says, it is very much in their interest “to reduce barriers for eligible staff to get vaccines, to have a dialogue with their staff to understand if and why they may be hesitant to get vaccinated, and to provide information and resources that may help those who are reluctant”. But that is probably as far as they can go.

There may be another phase of the pandemic with new variants resistant to current vaccines. The type of job people have received then becomes more significant. In short, managers will face a series of trade-offs. Their best option may be to accept the uncertainties, remain flexible, ensure the best possible hygiene standards for their staff—and hope that acquired immunity, vaccines and therapies make covid-19 no more life-threatening than seasonal flu.

German labour law allows companies to give bonuses to workers who get vaccinated for any illness (though not at this time to make vaccination mandatory). Such carrots are common in America, where Aldi and Lidl, two big German supermarkets, are offering workers payments of up to \$200 to roll up their sleeves. Neither grocer, nor any other big German firm, is currently planning to use such incentives at home, for fear of the controversy this might cause (see Bartleby). Still, Mr Buch expects the vast majority of his staff to accept the offer of free shots. Those who

decline may be barred from office parties and other group activities.

Once Mr Buch is done with Vonovia employees and their families, he is willing to turn the company’s centres over to the general vaccination effort. Other bosses are starting with the broader population. In early December, before the first vaccines were approved for use in the EU, business folk in Bremen, a city in north-west Germany, launched a campaign to convert an exhibition centre next to the central railway station into a giant vaccination site. Kurt Zech, a hotel-and-construction ty-

coon, contributed furloughed staff. Mercedes, a carmaker, threw in tables and chairs. Another company donated laptops. A software firm adapted its programs for use in a call centre that helps residents to schedule appointments.

Thanks to the pushiness of Bremer businesspeople, up to 16,000 of their fellow burghers a day will get jabbed from mid-March, more than ten times what the local government had planned. Their goal is to have 70% of the city’s adults inoculated by the end of July, months ahead of the government’s schedule. ■



Chinese law firms

Expansion, your honour!

HONG KONG

The Red Circle takes on the Magic Circle

HONG KONG'S Central district has long housed the offices of the world's poshest law firms. Recently a few of them, such as Baker McKenzie, Bryan Cave Leighton Paisner, and Freshfields, have left for parts of the city with cheaper rents. Central still teems with lawyers, except that more now toil for mainland firms like Zhong Lun, JunHe Law Offices and Fangda Partners.

These are members of the so-called Red Circle of elite Chinese practices that increasingly compete with London's venerable Magic Circle (of which Freshfields is one) and New York's white-shoe partnerships. And not just for office space. They are poaching legal eagles from Western rivals, or merging with them to create large groups such as Dentons (*Dacheng* in Mandarin). And they are opening outposts across the globe. The overarching aim, supported by authorities in Beijing, is to offer Chinese lawyering alongside other professional services, such as accounting, consulting and investment banking.

Chinese firms have so far made little headway in the City or on Wall Street. A study last year of 1,400 cross-border deals between 2010 and 2018 that involved at least one Chinese party, by Li Jing of Tilburg University in the Netherlands, showed that only 3% of law firms hired in China by American companies were Chinese. One reason may be cultural. From the West's wood-panelled boardrooms the Red Circle can look like arriviste apparatchiks. James William Freshfield, that firm's epo-

nymous founder, died in 1864. Wei Xiao, who in 1989 launched JunHe, China's first law partnership, only recently stepped down as managing partner. Like Mr Wei, who used to work at the justice ministry, many founding partners came from Beijing's officialdom. They speak its parlance and view the world through its lens. Their names often reflect traditional virtues.

Culture is not the whole story, however. For Chinese companies, too, have often preferred to retain Western counsel. Ms Li's research found that only one in six law firms hired by Chinese groups to help with foreign transactions were Chinese; nearly two in five were American. Even for inbound investments only about half of firms retained by Chinese companies were local. State-owned enterprises were less likely still to hire home-grown firms.

A bigger reason for the Red Circle's low profile is lack of experience in common law, which underpins much of international commerce. As Western companies globalised in the 1970s they brought their legal advisers with them, spreading the influence of British and American law firms. Many cross-border contracts are still inked in the common-law entrepôts of Hong Kong, London, New York or Singapore.

Part of Chinese law firms' effort to catch up with the Anglo-Saxons involves learning the rules of the old order, says Liu Sida of the University of Toronto. Hence the expansion in Hong Kong. In 1998 just one of Hong Kong's 49 registered foreign law

firms came from mainland China. By 2017 about 30% of 84 such firms had their headquarters in Beijing or Shanghai, according to a study by Mr Liu and Anson Au, also of the University of Toronto.

Chinese practices are finding it easier to recruit local lawyers versed in common law, thanks in part to institutions such as Peking University's School of Transnational Law in Shenzhen, which offers degrees in both American and Chinese law. In recent years many more graduates have joined Chinese firms rather than American ones, which they overwhelmingly favoured in the past, observes its dean, Philip McConaughay. Growing size and an ability to compete with global rivals on pay has "clearly lifted the prestige" of Chinese firms in a relatively short period, he says.

China is not content mastering the niceties of the old order. It is also subtly forging a new one around Chinese law. This begins by luring international students to its law schools, mostly from poor countries along the Belt and Road Initiative (BRI), its globe-spanning programme of infrastructure works. Plenty receive plush bursaries from the government in Beijing. Since only Chinese citizens can practise law in China, many foreign graduates prefer to return home, as paid-up members of China-friendly legal networks.

Some of these networks are formal. The All-China Lawyers Association, equivalent to Western bar associations, established an international group in 2019 to promote legal co-operation and is active in at least 36 countries. Chinese-owned firms like Grandall are setting up BRI practices. King & Wood Mallesons, created by the merger between a Chinese firm called King & Wood and Mallesons, an Australian one, has launched a think-tank-like affiliate to connect Chinese lawyers with local firms, companies and governments across Africa and Asia.

But it is informal webs that are more numerous, and possibly more powerful. Chinese companies seeking to enter new markets hire Chinese firms, which then enlist friendly local lawyers. The locals conduct due diligence, manage compliance with domestic law and appear in court on behalf of Chinese corporate clients, says Matthew Erie of Oxford University, who has studied such arrangements. The Chinese law firms oversee cross-border transactions and dispute resolution. Fees are split accordingly.

Sustained

These networks attract less attention than new Red Circle digs in Manhattan or tie-ups with white-shoe firms, says Mr Erie. In time, they may nevertheless be as successful at spreading Chinese influence as Anglo-Saxon law firms were in perpetuating that of the West. ■

Gambling in China

Let the good times roll

BEIJING

Macau's casinos are losing money but winning over investors

WHICH ECONOMY contracted most sharply last year? That dubious honour almost certainly belongs to Macau, a former Portuguese colony that is now part of China. On March 5th the autonomous region's statistical agency is expected to announce that GDP fell by at least half from 2019. Unsurprising, perhaps, given that the covid-19 pandemic has dealt a blow to Macau's sole engine of growth: casinos. Gross gaming revenue in Macau, the only place in China where casinos are legal, plummeted from \$36bn in 2019 to \$7.5bn last year. The first two months of 2021 brought little respite.

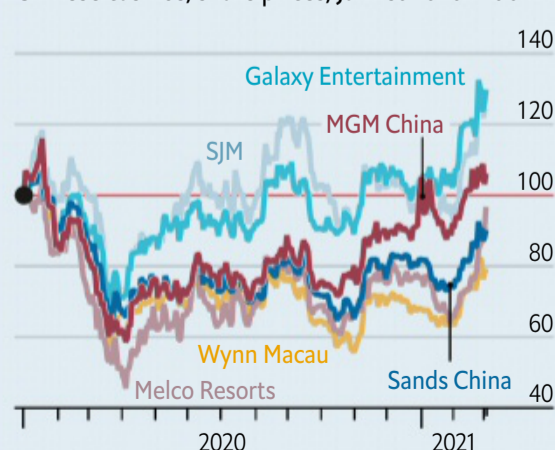
Yet despite collapsing revenues and heavy pre-tax losses, share prices of Macau's six casino operators have held up remarkably well (see chart). Three of them are worth more than they were before the pandemic. Recently, after reporting that annual revenues had fallen by three-quarters, the biggest, Galaxy Entertainment, saw its market value swell to \$42bn. Investors also reacted with a collective shrug when MGM China, a listed subsidiary of Las Vegas-based MGM Resorts International, disclosed a similar drop in its top line.

Why are investors feeling lucky? First, Macau expects a speedy recovery in visitors from mainland China, who account for seven in ten non-Macanese punters. For much of 2020 virus-induced travel restrictions stemmed their flow. Last month Macau exempted all mainland visitors from quarantine. Today the casino hub is the only jurisdiction with which the mainland has a two-way travel bubble.

The second reason for thinking the odds of recovery are good relates to a new

All aflutter

Chinese casinos, share prices, Jan 1st 2020=100



Source: Refinitiv Datastream

directive from the central government in Beijing. Last summer it created a "blacklist" of overseas gambling destinations that were "endangering the personal safety and property of Chinese citizens". A second blacklist of prohibited destinations was added in January. Neither list has been made public—perhaps because the government concluded that international leisure travel is still impractical and thus did not feel compelled to say more. But most gambling-industry watchers assume that Macau has been spared. Indeed, some believe that the blacklist may have been drawn up specifically to shelter the city. Either way, one long-term effect could be

the repatriation of the demand for gaming.

Macau may need to overcome a countervailing force. A new law that took effect in mainland China on March 1st prohibits any individual or group from "organising Chinese citizens" to partake in overseas gambling, on pain of imprisonment. Unlike the blacklist, this regulation appears to apply to all jurisdictions outside the mainland, including Macau. Casinos there often rely on agents in mainland China to organise such jamborees. They will now be forced to keep a lower profile. Still, investors appear to be betting that enough individual Chinese like a flutter. They greeted the new law with another shrug. ■

The glass-ceiling index

More cracks appear

NEW YORK

The lot of female executives is improving—but still too slowly

WALL STREET'S glass ceiling cracked at last on March 1st, as Jane Fraser took charge of Citigroup, becoming the first woman to head a big American bank. That cracking sound has also been echoing across the rest of America Inc. Last year Carol Tomé became boss of UPS, a package-delivery giant. In January Rosalind Brewer became only the third black woman ever to run a *Fortune* 500 company (Walgreens Boots Alliance, a pharmacy chain). A month later Thasunda Brown Duckett was picked to run TIAA, a big pension fund.

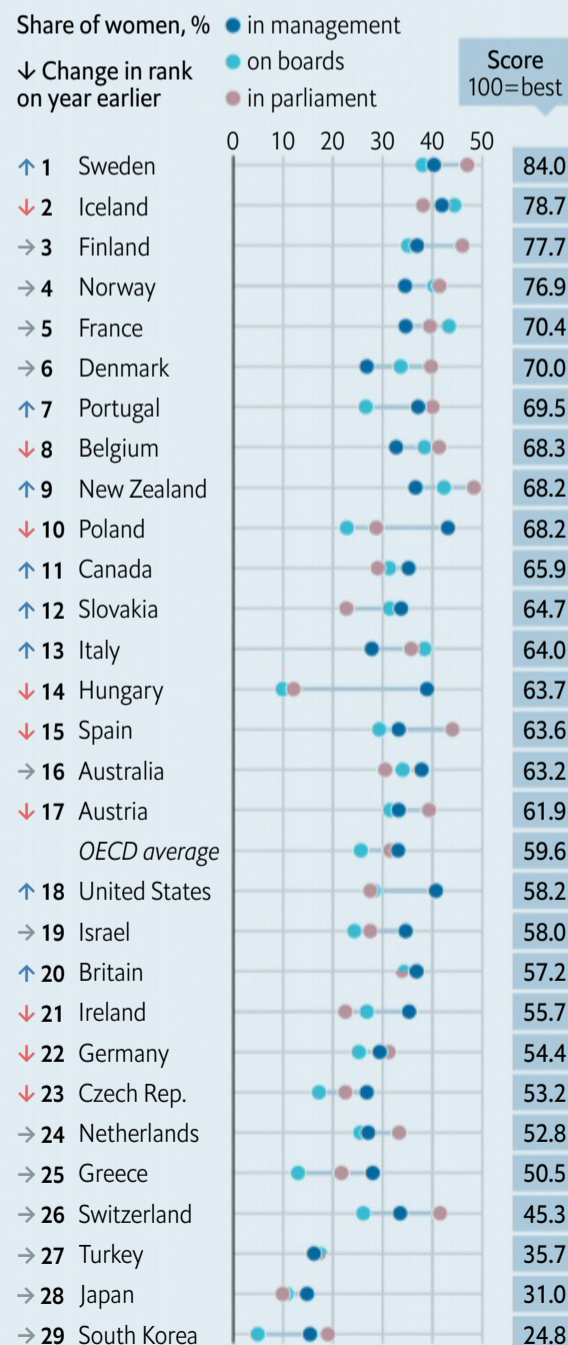
America ranks below the average for the OECD club of industrialised countries in *The Economist's* annual glass-ceiling index of female empowerment, owing to poor marks on parental leave and political representation. But it has a high share of women in management (41%) and on company boards (28%). In both cases America outpaces egalitarian Germany, which in January enacted a quota for female board members (and where the shares for management and boardrooms are 29% and 25%, respectively).

Most countries have a long way to go. Just one in three managerial positions across the OECD's 37 members is occupied by a woman. A recent study by SIA Partners, a consultancy, found that in Britain bias against women in senior corporate hiring remains systemic.

At least signs of progress can be seen even in traditional laggards like Japan. Mori Yoshiro had to resign as chief of the Tokyo Olympics in February after he complained that women talked too much in meetings. A woman replaced him.

Glass-ceiling index

Environment for working women, 2020 or latest



Sources: European Institute for Gender Equality; Eurostat; MSCI ESG Research; GMAC; ILO; Inter-Parliamentary Union; OECD; national sources; *The Economist*

Full results can be found at economist.com/glassceiling2021

Socially distant shopping

Drive-through rules

How to get hybrid retail right

FROM DRIVE-IN cinemas to drive-through restaurants, Americans love doing things without getting out of their cars. During the covid-19 pandemic they have taken to shopping in a similar fashion, too. Kerbside pickup, where buyers' vehicles pull up to retail outlets and dedicated staff help load online orders into the boot, helped supermarket chains notch up a banner year. One in two American shoppers used kerbside or in-store collection last year, according to a survey by ShipStation, a maker of shipping software.

No big retailer in America can do without kerbside pickup. Those that had it before the pandemic, including Target, Walmart and Kohl's, have expanded their offerings. On March 2nd Target reported record digital sales, which accounted for two-thirds of revenue growth last year. These were powered by such "drive-up" purchases, which ballooned more than six-fold in the final quarter of 2020. Shops that lacked kerbside operations hurriedly created them from scratch. Some analyses have found that around 60% of American retailers now have the service, twice the share 12 months ago.

Even malls, which were struggling before the pandemic added to their woes as self-isolating consumers moved en masse to online purchases, are giving it a whirl. Sarah Fossen, head of marketing at Rosedale Centre, a mall near Minneapolis with 150 retail tenants, recalls starting a service with parking space set aside for kerbside pickup at two entrances, only to discover that there was sufficient demand to add such space at all five main entrances.

Successful efforts get a number of things right, says Tom Enright of Gartner, a research firm. Some of the imperatives are straightforward (install clear signs, offer sufficient parking space). Others require retailers to make bigger changes; since they do not have to lug stuff to their car themselves, for example, kerbside shoppers often buy bulkier crates of bottled water or bigger bags of pet food. A bit of technological nous comes in handy. Some retailers are, for instance, using location tracking in their apps to know when exactly customers might arrive, so as to minimise waiting times, says Jean Chick of Deloitte, a consultancy.

Some waiting will be inevitable. But, says Mike Robinson, who used to run digital operations at Macy's, a big department-

store chain, the period in line need not be wasted. Lingerers could be enticed with other offerings, from promotions to new products, in the same way that you might grab a chocolate bar while waiting at the cashier. It is "the perfect time" to engage shoppers, Mr Robinson says.

Many shops still have to crack important aspects of this transition. Most are not equipped for returns or exchanges and lack a seamless way for customers to add and pay for last-minute items. Retailers could improve the experience with pop-up tables in the parking lot stocked with popular items. As Mr Enright notes, "If kerbside is going to replace an in-store experience, it has to bring a lot of those in-store experiences out into the parking lot." ■

Packaged food

Breadwinners

MEXICO CITY

Mexican bakers look north

PEOPLE HAVE to eat, so food firms the world over give reassuringly consistent profits, even in lean times. Mexico is no different. The country's 126m people buy \$55bn-worth of packaged food annually. Sales of such fare have been growing quickly, notes Euromonitor, a research firm. Between 2015 and 2020 they expanded by 6.9% a year, compared with 4% in America.

This trend should have lifted the likes of Bimbo, the world's largest baker, and Gruma, its biggest maker of tortillas. Instead, like many Mexican businesses in recent years of sluggish economic growth, they have fallen out of favour with investors. Stable profits notwithstanding, their market capitalisations are well below their

peaks in the mid-2010s.

To whet the stockmarket's appetite for their shares, both firms are doubling down on foreign markets. America's packaged-food market alone is nearly ten times the size of Mexico's. A loaf of Bimbo bread that costs \$1.76 in Mexico sells for \$2.77 north of the border. Bimbo has also acquired several big American brands, most notably Sara Lee, a maker of poundcakes and cream pies, in 2010.

These investments may at last be paying off, partly thanks to the pandemic-inspired rush to comfort food. In 2020 Bimbo's sales in America and Canada rose by 22%; operating profits in the region shot up by 84%. IRI, a data firm, puts it among the fastest-growing big consumer-goods companies in the United States. Revenues north of the Rio Grande helped push Bimbo's total sales to a record \$16bn. Operating profit hit \$1.2bn. Gruma attributed its own strong results last year to a growing fondness for tortillas among Hispanic and non-Hispanic Americans alike.

Further expansion will not be a cakewalk. Bimbo's bread and butter is simple fare that legions of poor Mexicans can afford. To succeed in richer places like America the company will have to cater to more upper-crust consumers with varied tastes. It is now experimenting with niche and premium products. Last year the Bimbo-owned New York Bakery launched gluten-free breads. Gruma has introduced naan and pita breads in some markets. Lala, a dairy company that is Mexico's third-biggest food firm, has got into organic milks.

Some of those innovations may come in handy at home, too. As the share of Mexican who are obese has hit one-third, up from one-fifth in 1996, Mexico's government has developed a growing distaste for unhealthy food. In October it introduced a law forcing firms to label foods high in calories, sugars, salt or bad fats. Both bread and tortillas qualify. ■



The American market? Piece of cake

Schumpeter | The smuggest guys in the room

McKinsey's partners suffer from collective self-delusion



ONE OF THE best explanations for the triumph of a “solution shop” like McKinsey was co-written by the late Clayton Christensen of Harvard Business School in 2013. When hiring a management-consulting firm, he said, clients do not know what they are getting in advance, because they are looking for knowledge that they themselves lack. They cannot measure the results, either, because outside factors, such as the quality of execution, influence the outcome of the consultant’s recommendations.

So they rely on reputation and other squishy factors—the consultants’ “educational pedigrees, eloquence, and demeanour”—as substitutes for tangible results. On that basis, no one would hire Schumpeter to help fix McKinsey’s problems. His diagnosis is as lacking in eloquence as he is in demeanour. In his unschooled view, those of the firm’s 650 senior partners who voted to oust their global managing partner, Kevin Sneader, on February 24th, are in a clueless mess. Worse, they don’t get that they don’t get it.

The Byzantine voting system that has done away with Mr Sneader has not yet determined which of his two potential successors will replace him. Nor is it clear for what precisely the 54-year-old Scot is paying the price. Some see his departure as the firm’s strangled *mea culpa*; the ousting of a boss is typical of a firm engulfed in the sort of scandals Mr Sneader has had to cope with, from dodgy dealings in South Africa and settling conflict-of-interest lawsuits to paying almost \$575m to settle claims that its advice helped exacerbate America’s opioid crisis. Yet the roots of all those crises predate his three-year tenure. He is, at most, the fall guy.

More likely, sticking his nose into his partners’ businesses to avoid future calamities could have rubbed enough of them up the wrong way that they voted against him. That would suggest that a majority cannot fathom how serious McKinsey’s problems are.

At heart, they stem from a simple delusion. Its partners see themselves as missionaries. Yet they are also mercenaries—“guns for hire”, as Duff McDonald, a biographer of the firm, calls them. They have a mantra that puts their clients’ interests above their own, and a belief, drawn from the firm’s pristine heritage, that no one knows better how to distinguish between right and wrong. Yet in some cases, as in working with Purdue Pharma, maker of the addictive painkiller OxyContin, their moral compasses go hay-

wire. That is most likely because of the lure of lucre.

Numerous notes of dissonance follow from this. For almost 95 years, McKinsey has sought to portray itself as a genteel professional-services company, not a grubby business. Unlike, say, a profit-hungry Goldman Sachs banker, who walks into a room aware she may be hissed at, a McKinsey consultant expects his halo to be noticed. However much its senior partners insist that they are not motivated by outsized profits, they can earn as much each year as that Goldman banker. Revenues have roughly doubled in a decade to over \$10bn. Partners number 2,600. The firm’s employees revel in the aura of the old McKinsey—of autonomy, discretion and intellectual prestige—while embracing the growth, profits and power that have come in more recent years. Rarely do they doubt whether they can have it all.

More people and more wealth inevitably make oversight more important. Still, McKinsey continues to think of itself as a partnership built on trust, not one that requires centralised command and control. Its voting system resembles an elite Athenian democracy. The more trouble it is in, the more it needs a Spartan leader, backed by a strong risk-control apparatus, to keep it on the straight and narrow. McKinsey’s 30-person “shareholder council”, its board of directors, may be too steeped in the firm’s cult-like culture to realise how pressing is the need for change. Mr Sneader started the reforms. His defenestration seems ominous for those hoping they will go much further under his successor.

As scrutiny of it intensifies, McKinsey must learn to balance preserving its discretion on behalf of clients with greater transparency. The more work it does for governments, the more public attention it will receive. Its costly legal encounters are bringing to light details of more client contacts, including with Johnson & Johnson, which last year settled an opioids lawsuit with a group of state attorneys-general. McKinsey’s settlements over opioids—in which it did not admit wrongdoing—require it to publish reams of correspondence, which increase the risk of reputational damage.

First, identify the problem

Within the cryptic world of McKinsey, what signs would indicate that the firm recognises the crisis that it is in? The winner of the run-off to replace Mr Sneader, which will reportedly be between Sven Smit from the Amsterdam practice and Bob Sternfels from San Francisco, should say which aspects of his predecessor’s reforms he intends to keep. More risk control is a must. Client payments should be more standardised. Most are flat fees (albeit fat ones) but about 15% are tied to performance; the latter create incentives for abnormally turbocharging results. Bruised by scandal, a truly progressive firm would launch its own version of a truth-and-reconciliation commission to see if anything else is lurking in the closet. It could shunt a generation of partners towards retirement. That would make it less unwieldy and make way for those more accustomed to the glare of publicity.

Above all, when it does open up, the firm should adopt some radical new talking-points. Rather than cloak itself in righteousness and assert its right to complete discretion and total opacity over how it behaves, it should admit that it exists to make cold, hard cash, and make explicit the ethical lines that it will not cross and the process it has to police them. Well-run companies confront and manage conflicts of interest. McKinsey has tried to blag its way through them with a narcissistic recklessness. Its partners like to think of themselves as the smartest guys in the room. They should have realised the perils of their self-delusion long ago. ■



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Financial markets

The inflation bogeyman

Get ready for more bond-market scares

THE WEEK in financial markets got off to a breezy start, belying the turmoil of the previous week. By the time the New York market closed on March 1st, the S&P 500 index of leading shares had risen by a carefree 2.5% on the day. Europe's stockmarkets had already followed Asia's lead in closing sharply up. The mood in Asia was helped by Australia's central bank, which acted to calm bond-market nerves by announcing it would intervene to buy long-dated government paper. Yields on ten-year Aussie bonds, which had risen quickly since New Year's Day, fell by some 0.25 percentage points.

Stockmarkets gave up Monday's gains on Tuesday and Wednesday. But conditions in America's government-bond market were somewhat calmer, in stark contrast to the week before, when anxiety about inflation took hold. The steady fall in bond prices since the start of the year had suddenly quickened to a pace that threatened a destabilising rout. During February 25th the benchmark ten-year Treasury yield spiked above 1.6% (bond yields move

inversely to prices). That is still low by historical standards, but a lot higher than it started the day, or indeed the year. This prompted a big one-day fall in the S&P 500 and a bigger fall in the tech-heavy NASDAQ. Almost as suddenly, the worst fears about

inflation have receded again—but perhaps not for long.

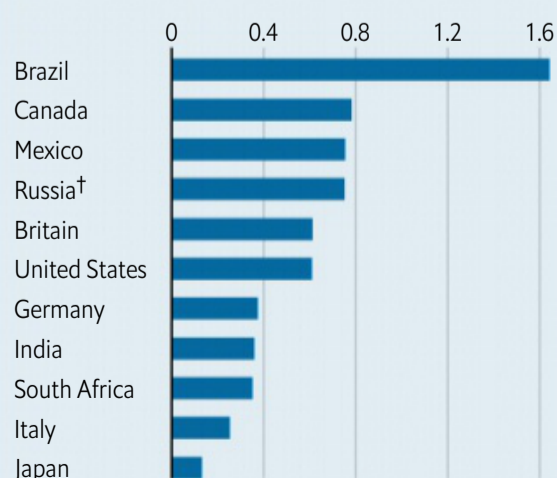
Much of what has happened is to be expected. Bond prices ought to fall as the economy recovers. The ten-year Treasury is the benchmark bond and is thus a barometer of risk appetite in markets and of economic confidence more broadly. And it is global benchmark. The sharp rise in Treasury yields from the start of the year until February 25th was matched by yields on bonds in other places (see chart 1).

Bond prices move in the opposite direction to confidence; bond yields go in the same direction as confidence. When the outlook for the economy is bleak, as it was in March last year, yields fall sharply as investors rush to the safety of bonds. As the outlook brightens, bond prices start to fall and yields start to rise again. Bond prices are thus countercyclical most of the time. This feature makes them very attractive diversifiers for equities, the prices of which are more procyclical, moving up and down in tandem with the economic cycle (see Buttonwood).

Mild inflation is not to be feared. Indeed it is in part changes in the market's expectations of inflation that drive bond yields down in recessions and up in recoveries. But hopes for a reflation of the economy can quickly spill over into fear of higher inflation. The case for this seems stronger than it has for many years. The American economy is recovering quickly. Fiscal transfers have left households with ▶▶

Creeping up

Increase in ten-year government-bond yields*
Jan 4th-Feb 25th 2021, percentage points



Source: Bloomberg *Local-currency bonds †From January 11th

lots of extra savings. Lockdowns have given rise to pent-up demand. Already there is plenty of fuel for a spending spree when the economy reopens in earnest. And more is on the way. President Biden's \$1.9trn stimulus package is likely to become law this month. A jump in the annual inflation rate seems assured in the coming months, if only because prices were depressed a year ago. Perhaps, then, the strength of consumer spending, as people start to move around more freely, might further push it up.

These latent anxieties form the back-

drop to the recent turmoil. Three factors in particular seemed to be at work. First, the market for future short-term rates started to price in interest-rate increases by the Federal Reserve by early 2023, sooner than the Fed had indicated thus far. You can call this the inflation-fear element: if the economy seemingly has this much momentum behind it, can the Fed really hold off from raising rates for very long? And if it tightens sooner, might the peak in interest rates be higher? That would be a big concern for America's stockmarkets, where high prices relative to future earnings are largely justi-

fied by the expectation that interest rates will remain very low for a long time.

Second, just as the market was having a rethink about Fed policy, the Treasury held auctions for two-year, five-year and seven-year bond issues on February 25th. These are maturities that are sensitive to shifts in expectations about Fed policy in 2023-24. Indeed the one-day rise in the five-year-bond yield was notable (see chart 2 on next page). The auctions went poorly. The seven-year bond had the lowest bid-to-cover ratio (a gauge of excess demand) for an issue of its kind for more than a decade. This

Buttonwood Lament for the pointy-heads

Why people are worried about regime change in the relationship between bonds and stocks

MOST PEOPLE have little time for quants. They find the language of quantitative finance far from illuminating. Even fairly numerate people struggle to grasp what comes easily to pointy-headed number-crunchers. Take the idea of correlation, the co-movement of two or more variables. Such relationships vary with the period over which they are measured. The direction can shift. Things quickly become confusing.

Yet the quant argot is useful when considering perhaps the biggest fear stalking financial markets: a sustained rise in inflation that would be bad for both equities and bonds. A quant might describe this as a flip in the bond-equity correlation from negative to positive. That is none too elegant, though. A better choice is a term used in geopolitics as well as econometrics: regime change.

It is helpful in this matter to start with two stylised facts. The first is that in recent years, bond and equity prices have tended to move in opposite directions over the business cycle. When recessions hit, bond prices tend to rise sharply (their yields fall) and equity prices usually crash. When the economy recovers, bonds tend to fall in price and equity prices go up again. You can think of this in terms of risk appetite. Government bonds are safe assets. People rush into them when they fear for the future. Equities, by contrast, are risky assets, so people shun them in troubled times.

The second stylised fact concerns a secular relationship rather than a cyclical one. Since the early 1980s bond and equity prices have moved in the same broad direction—upwards. If you look at low-frequency data over a long period, the bond-equity correlation is positive. This is best understood in terms of yields rather than prices. For the past four

decades, there has been a secular decline in government-bond yields, reflecting a secular decline in interest rates. The earnings yield on equities has fallen, too, as have yields on other assets, such as corporate bonds and property. This should not be a surprise. Yields are a gauge of expected returns. Bonds and equities compete for investors' capital. Over the long haul the prices and yields of each will respond to those of the other.

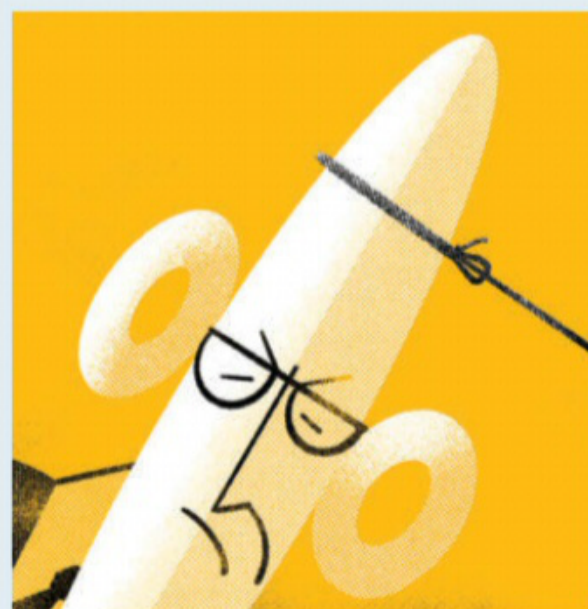
These two facts may seem at odds, but a third fact makes them consistent. In each business cycle, interest rates tend to rise as the economy gathers strength (so bonds and equities diverge over short periods). But each business-cycle peak in interest rates is lower than the previous one (so bonds and equity prices converge over the long run). That in turn is a response to the secular decline in inflation.

Indeed, inflation is central to the bond-equity relationship. It is here that things become trickier, and the notion of regime change matters. Bonds promise fixed cash payments in the future. Those cashflows are worth less when inflation unexpected-

ly rises. By contrast, equities have generally outpaced inflation over the long haul. But the relationship between inflation and equity prices is not stable. A study by Sushil Wadhvani, a former member of the Bank of England's rate-setting committee, in 2013 found that higher inflation generally helped to boost stockmarket returns in Britain in the two centuries before 1914. But by the last half of the 20th century a negative relationship had emerged. You might best explain this finding in terms of monetary regimes. Under the pre-1914 gold standard, inflation was mean-reverting: if it was high one year, it would fall the next. But in the era of fiat money, especially in the 1970s, the checks on inflation were less binding.

In the past few decades central banks were given inflation targets, and the monetary regime switched again. Now, yet another regime change may be afoot. Fiscal stimulus is back in favour, which has an unsettling 1970s feel to it. Fiscal policy fell out of fashion because it was not well suited to fine-tuning aggregate demand; politicians are reluctant to cut spending or raise taxes when the economy threatens to overheat. And the old-style central banker—reared in academia, aloof from politics, paranoid about inflation—is now almost extinct. The new breed talks about climate change and inequality and is sanguine about inflation risks. This feeds a general sense of lost policy discipline.

Sooner or later, warn the hawks, this will end in tears. Many of the people who predict the return of 1970s-style inflation used to deride the old-school, bookish rate-setter, with his fancy econometrics and lack of market smarts. It is no small irony that they now feel so nostalgic for the pointy-headed central banker.



▶ further spooked the market about the underlying demand for bonds.

Third, the volatility in the bond market seems to have caused liquidity to dry up. So for a given volume of selling, prices fell further than they otherwise might have. Each of these three factors reinforced the other—hence the drama.

Given the anxieties about inflation, you may wonder why the bond market recovered its poise. There are probably limits to how far an inflation scare can run this early in the economic recovery. The message from the Fed's rate-setters has generally been that they are not even thinking about thinking about raising rates or cutting back on bond purchases. In a speech on March 2nd Lael Brainard, a Fed governor, stuck to that script. "Today the economy remains far from our goals in terms of both employment and inflation, and it will take some time to achieve substantial further progress," she said. The intervention by the Reserve Bank of Australia is a reminder that central banks have the firepower to cap bond yields, if they are determined to do so. And some private-sector investors will see value in Treasuries at these yields. Foreign buyers from Europe and Japan, for instance, where yields are lower, may find them attractive.

All this has restored a measure of calm to the bond market. Ten-year Treasury yields are inching upwards again, having fallen back to 1.4%. The equity market is choppy, but that might be expected after such a long run-up in prices. You could put the events of last week down to "technical issues", the catch-all explanation for many a financial-market scare. But that would be a little too sanguine. Episodes in which trading liquidity suddenly dries up seem to be becoming more frequent in the Treasury market. These sorts of scares will recur. Inflation is the bogeyman of financial markets. A whole constellation of expensive assets depends on its quiescence. No one can yet be confident that it will stay subdued. Further bouts of bond-market jitters are likely before the year is out. ■

A fear of heights

United States, Treasury yields, %



Source: Federal Reserve Bank of St Louis

China's economy

Taper test

SHANGHAI

As China unwinds stimulus, its exit will offer a preview for others

THE PHRASE "first in, first out" has become shorthand for China's experience of the covid-19 pandemic: it is both where the virus started spreading and the first large country to control it. Its early failure and subsequent success will be studied by epidemiologists for years to come. But for economists and investors, it is another "first in, first out" that matters more at the moment. China was the first country to open its lending and spending taps in the face of the coronavirus downturn. Now, it is the first to start to close them, giving others a partial preview of what the end of stimulus will look like.

Parallels between countries are, of course, imperfect. China required less stimulus because its workers went back to factories and offices nearly a full year ago. But a few general conclusions can still be drawn about its return to more normal monetary and fiscal policies.

The most notable is its gradualism. On March 5th, after *The Economist* went to press, the government was set to announce its budget for 2021. It was widely expected to target a smaller fiscal deficit this year, probably about 3% of GDP, down from last year's 3.6%. Factoring in other quasi-fiscal measures such as spending by government-linked companies, China's true fiscal deficit will be about 12% of GDP, compared with a record high of 15% last year, according to Morgan Stanley, a bank. That is a retrenchment, but still higher than its deficit in 2019, of roughly 10% of GDP.

The central bank has also been cautious. It has withdrawn liquidity to guide up market interest rates and to slow the growth in bank lending. But both the price and quantity of credit remain more generous than before the pandemic struck. "They are aiming to avoid a sharp turn in the policy orientation," says Zhu Ning of the Shanghai Advanced Institute of Finance. With 2021 marking the start of a new five-year plan for China, officials will be racing to launch infrastructure projects. The new plan—an important part of the policy process in China—promises big expansions of railways, power lines and more. That, Mr Zhu says, should help offset the end of the coronavirus stimulus.

The tightening, however gradual, is bound to be bumpy. In the past couple of weeks global markets have been roiled by the rise in Treasury yields in America. China went through a similar squeeze in late

January when the central bank was far stingier in its open-market operations than expected, leading to a spike in overnight borrowing rates. Stocks fell sharply, though recovered when the central bank eased up. Officials may have wanted to put investors on notice. They have also sounded warnings about asset prices. On March 2nd Guo Shuqing, the top banking regulator, warned of bubbles in the Chinese property market and global financial markets.

As well as China has done in taming covid-19, its policy normalisation still depends on the course of the pandemic globally. Domestic travel remains limited amid lingering concerns about the virus and international travel is largely blocked. A slow roll-out of vaccines in China means there is no chance that it will fling open its doors to the world soon.

Nevertheless, given how rough last year was, China's rebound is likely to be big—something else that other countries will also enjoy. Many analysts think growth could be 9% in 2021, up from last year's 2.3%. That puts the government in a slightly awkward position. At the same time as announcing its budget, it typically sets a GDP target. Were the government to aim for 9% growth—realistic but higher than any previous annual target—markets might conclude that it is not so serious about ending stimulus. Were it to shoot for lower growth, markets might fret that the unwinding would be harsher than expected. As far as dilemmas go, it is a happy one. ■

Greensill Capital

Accounts due

A niche financing firm's woes will reverberate widely

SUPPLIERS HATE being made to wait for the cash they are owed almost as much as their customers hate parting with it. What if high finance could help? Specialist firms have indeed sprung up, offering to pay suppliers up front, then cashing in their customer's cheque as the bill comes due weeks later. By charging fees or a spread, the intermediary takes a cut for what is in effect a loan. But the woes this week of Greensill Capital, a provider of such supply-chain financing, highlight some of the risks lurking in overlooked bits of the financial system.

Greensill, founded just ten years ago, boasted it could help companies "unlock capital". Using techniques mastered by erstwhile slicers-and-dicers of subprime mortgages, it transformed the bills it took on into bond-like investments. These ▶▶

► could be sold to outside investors, such as hedge funds, desperate to find some yield in a low-interest world. As long as the customers kept settling their invoices, a tidy profit could be made for investors—and the financiers behind all the alchemy. By 2019 Greensill claimed to have arranged financing worth more than \$140bn to over 10m customers.

Questions over whether the money would indeed keep flowing were never far away. As concerns mounted over the creditworthiness of the companies Greensill had to collect money from, the value of the bonds underpinned by the invoices wobbled. On March 1st Credit Suisse froze \$10bn of funds stuffed with paper sourced by Greensill. The Swiss investment bank warned of “considerable uncertainties” with respect to the valuation of the bonds linked to Greensill.

Within days Greensill itself was fighting off bankruptcy. The firm is said to have sought relief from insolvent-trading laws in Australia, where part of its corporate set-up is based (its founder, Lex Greensill, is Australian). By March 3rd it was reported by the *Financial Times* to be preparing to file for insolvency in Britain, where it conducts much of its business. Apollo Global Management, an American private-equity giant, has been in talks to buy at least part of the franchise, at a fraction of the \$7bn value Greensill, which had planned to list its shares, once hoped to achieve.

The swift downfall of a once-lauded financial firm will reverberate beyond the niche world of trade finance. Greensill had worked up a profile as a scrappy innovator while also courting the establishment (David Cameron, a former British prime minister, was flaunted as an adviser). Mr Greensill, who said the idea for the business came from seeing his farmer parents run into financial difficulty, and who is now in his 40s, became a youngish billionaire. After a previous sticky patch in 2018 the firm had received \$1.5bn in investment from SoftBank, a Japanese investment group fond of backing wildly ambitious undertakings.

Regulators are now wondering whether the model highlights risks they ought to have fretted about. On March 2nd BaFin, Germany’s financial watchdog, took over control of a bank Greensill runs there, closing it to new business. It has filed a criminal complaint against the bank’s management, accusing it of manipulating its balance-sheet. (Greensill says it followed its auditors’ advice and was complying with the regulator’s previous requests.)

Another concern is what will happen to companies that used Greensill’s services to access capital. One noteworthy borrower is Sanjeev Gupta, an Indian-born industrialist who has snapped up steelmaking assets in Britain and beyond. Greensill was a big

Platform economics

The price of fame

What is a celebrity worth?

“THE WRITER of this piece deserves a big raise,” says Bret “The Hitman” Hart, a professional wrestler from the 1990s. “He is the best there is, the best there was, the best there ever will be,” he adds, echoing his old catchphrase. Your correspondent paid Mr Hart \$150 to sing his praises.

Mr Hart is one of over 10,000 celebrities on Cameo, an online service where anyone can commission famous people to film short messages. Its popularity has surged as celebrities seek new sources of income and confined consumers look for ways to spend money. Last year they paid some \$100m for 1.3m videos, more than in the previous three years combined. Talent on the site ranges from Jack Nicklaus, a golfer (\$1,000 per clip), and Vicente Fox, a former president of Mexico (\$300), to Barkley the Dog, a dog (\$5).

Cameo, like Uber, is a two-sided market. But most Uber users don’t care what car shows up, as long as it is clean, safe and gets them to their destination.



He’s a hit, man

On Cameo, the emotional connection between a fan and a star matters. “The price that a market will bear depends on the value being created for a potential customer,” says Jill Avery, a professor at Harvard Business School who has studied how online influencers price themselves. But “value” is hard to measure when it comes down to emotion.

How do celebrities figure out their fees? One way is through a simple opportunity-cost calculation. Steven Galanis, Cameo’s boss, recalls speaking to a basketball player on an annual \$25m contract. For a 40-hour work-week with a fortnight of holiday, that is \$208 per minute. “If he charged \$100 and did two or three a minute, he could make more money on Cameo,” says Mr Galanis.

Most celebrities are freelance, though. They can try one of two strategies, says Ms Avery. One is “price skimming”—starting high and then lowering the price as demand ebbs. The second is “price penetration”, pricing low to maximise volume. Celebrities often use both, depending on how much time they have.

Another method is to test the market. This is surprisingly underused. Though celebrities can change their prices as often as they like, only about 30% have done so at least once, and less than 10% have done so more than five times.

Less rational reasons are at play, too. Snoop Dogg, a rapper famous for smoking copious amounts of weed, insisted on charging \$420, a number associated with pot culture. He could not keep up with demand and eventually raised his fee to \$1,000. Others charge a premium over perceived rivals or, led by ego, over-price themselves. But reality eventually intervenes. Mr Galanis remembers a TV personality who started at \$60 and found that demand was inelastic all the way up to \$99. But when she raised her price to \$125, demand dropped by half. Value, like fame, is eventually decided by the fans.

provider of finance to the GFG Alliance, a group of firms controlled by Mr Gupta’s family; Mr Gupta also once owned a stake in Greensill itself. It was transactions linked to loans to Mr Gupta’s empire (which has not been accused of wrongdoing) that prompted BaFin to step in. A spokesman for GFG said it had adequate funding, even as reports emerged of talks to secure loans from other sources.

The episode will also shine a light on

the world of supply-chain financing. Fans of the practice point out it keeps money flowing even as some cash-strapped businesses keep suppliers waiting for months to be paid. But its accounting treatment is tricky. There is evidence that some struggling businesses may seek to hide spiralling debt piles by using supply-chain-finance techniques. Creative forms of financing work best when they rely on conservative accounting. ■



Universal basic income

Cheques and balances

WASHINGTON, DC

Covid-19 led to a proliferation of cash-transfer schemes. Could it pave the way for a universal basic income?

WHEN ANDREW YANG began his campaign for the Democratic presidential nomination, his proposal for a “Freedom Dividend”—monthly cash payments of \$1,000 to be paid to all Americans—distinguished him among a crowded field as an outsider and an unorthodox thinker. Nearly two years later, as Mr Yang leads the race for mayor of New York City, his plan to provide cash to half a million New Yorkers feels far less radical, and not just because it is much more modest than his idea for a national universal basic income (UBI).

Though UBI still meets with scepticism in many quarters, the experience of the pandemic, and the accompanying explosion in social spending, have changed the tone of discussions about radical reforms to welfare states (see Briefing). Cash transfers—like those deployed by many governments during the pandemic—have come to look like an efficient, effective way to meet any number of social needs. Few schemes during the pandemic offered recurring payments to all. Yet, though the age of the UBI has not dawned, the ordeal of covid-19 could have brought it closer.

Arguments for universal-income payments have flourished for centuries. Thomas Paine argued that the Earth is common property, and everyone who makes use of its land and resources owes society a

“ground rent”, which should fund the payment of a “natural inheritance” to all adults. Plans for universal payments, and the subtly different idea of a guaranteed minimum income, were a recurring feature of welfare debates in the 20th century. Yet by the end of the century concerns about freeloading and persistently high rates of joblessness across much of Europe led to reforms that made benefits stingier or more contingent on work.

Worries about inequality and the belief—especially among tech types—that robots and artificial intelligence might soon make many workers redundant led to renewed interest in basic incomes in the 2010s. But realistic proposals were scant, Mr Yang’s plucky presidential bid notwithstanding. In 2016 a Swiss referendum on a plan to pay all adults an income of about \$2,500 per month was soundly rejected, with nearly 80% of voters opposed.

Then came covid-19. Restrictions on activity placed huge swathes of society in a position of dire, urgent economic need. Governments around the world responded with a fire hose of cash. From mid-March to mid-June more than 1.1bn people received cash payments, much of which were approved with little political opposition. Cash transfers accounted for about a third of all pandemic-related social poli-

cies, according to the World Bank. America’s Congress passed a covid-relief act in March 2020 containing a provision to send no-strings-attached cheques of up to \$1,200 to most adults by near-unanimous margins (another round of cheques followed at the end of the year).

Residents of Hong Kong received payments worth nearly \$1,300; those in Japan about \$930; most Singaporean adults roughly \$425. Some governments experimented with payments that could be used only locally, through vouchers (as in Malta) or pre-loaded debit cards (as in parts of South Korea). But most simply sent cash.

Few if any of these schemes offered a true UBI, though. In the rich world, most cash-relief programmes were one-off transfers, aimed at stimulating consumption and cushioning against income shocks. In poor countries transfers more closely resembled a basic income, in that they were often recurrent. But most were aimed at the poor and vulnerable. In its biggest-ever welfare programme, the Brazilian government provided monthly payments to the poorest third of the population until December 2020. Togo’s scheme sends fortnightly transfers to the mobile wallets of informal workers where lockdowns are in place.

But as the end of the acute phase of the pandemic draws near, and normal economic activity slowly resumes, the number of programmes still in place is dwindling. Only 7% of policies have been extended; the average scheme lasted just three months, according to the World Bank. In America, President Joe Biden’s stimulus bill, which is working its way through Congress, makes provision for a third round of cheques, though fewer people will receive them than in 2020.

Pandemic assistance itself will not evolve into sustained basic-income schemes. But the world’s experience with covid-19 could still make their eventual adoption more likely. Polling suggests that young people in both America and Europe support UBI. Both Democrats and some Republicans have expressed support for an expanded child tax credit in America, which would provide cash with no strings attached to families on low incomes. Though benefits phase out for those on high incomes, the plan (which is part of Mr Biden’s relief bill) comes close to providing a basic income to families with children.

In South Korea, a presidential election contest scheduled for next year is shaping up to be a referendum of sorts on UBI. Lee Jae-myung, a potential candidate who as governor of the province of Gyeonggi oversaw a regional basic-income programme, suggests that South Korea should adopt a national-level UBI of 500,000 won (\$430) per year, rising eventually to that same amount per month. (A possible rival for the ▶▶

► presidency, Chung Sye-kyun, the current prime minister, opposes the plan.)

Pandemic experience also adds to a growing body of evidence on the effects of cash-transfer programmes. In response to the surge in interest in UBI, researchers and governments around the world launched a variety of experiments, at least some of which had begun to yield results before the arrival of covid-19. Finland, for example, conducted a trial in 2017-18 in which 2,000 randomly selected unemployed people were paid a modest income each month, roughly equivalent in size to unemployment benefits, which was guaranteed for the term of the trial.

Evidence from the experiment was muddied by a change to a law in 2018, which tightened conditionality for receiving unemployment benefits. Even so, the results are intriguing. Among the biggest worries relating to UBI is the possibility that it might discourage recipients from seeking paid work. Yet participants who received unconditional payments actually worked more than those on the dole. Reported well-being was substantially higher; recipients also registered less depression and stress, a higher degree of confidence in their abilities, and more social trust than did those in the control group.

The Finnish results are broadly consistent with findings from other experiments. Rebecca Hasdell, then of the Basic Income Lab at Stanford University, conducted a review of 16 basic-income studies published between 2009 and 2019 that covered rich and poor countries. The research provides consistent evidence of a positive effect on educational attainment and on measures of physical and mental health, and reduced poverty. Effects on labour-market participation are generally small; half of the studies that assess its impact do not find a statistically significant effect. Most of the rest find a positive effect, she writes.

Where participation does decline, though, it is often associated with an increase in caregiving, which could worsen gender inequality in the labour market. In low- and middle-income countries increased caregiving is often linked to lower workforce participation by women. In some studies, a basic income also seems to reduce participation by older workers.

In some cases the beneficial effects of UBI seem to have persisted through the pandemic. A team of economists that had begun a large-scale UBI experiment in Kenya before the outbreak of covid-19 was able to monitor its performance during the crisis. Recipients reported levels of well-being that were modestly but meaningfully higher than those of the control group. Effects on health outcomes were ambiguous. But people receiving payments were more likely to engage in risk-taking commercial activities: perhaps, the authors

suggest, because of the insurance provided by the transfers. That suggests that even if basic incomes discourage some sorts of work, they may encourage other desirable activities, such as entrepreneurship.

Extrapolating from these findings is a fraught business. Studies of long-established systems with UBI-like features, such as Alaska's Permanent Fund, which invests oil revenues and distributes dividends to the public, also indicate that the employment effects of a universal payment seem to be small (and may well be positive). But conclusions drawn from programmes that are limited in geographical or temporal scope may not fully capture the ways in which a large-scale, permanent UBI could affect society. Norms regarding work and leisure might adjust in ways that alter the response to payments—for good or ill.

Reality cheque

Behaviour could shift as more members of society receive generous income payments: perhaps because of a "social multiplier effect" which reflects the fact that some activities become more enjoyable as more people engage in them. That is, UBI recipients in, say, the Finnish experiment might have been more inclined to seek work because being in work is more attractive (and not being in work less so) when most people are employed—a dynamic that could potentially change were income payments to become universal.

Still, encouraging results from UBI trials are likely to encourage more experimentation. They may also provide support to principles and policies that share features with a UBI without going the whole hog, such as: universality; a relaxed approach to the question of work incentives; or a guaranteed income to some groups, as Mr Yang now proposes. That is because the most daunting obstacle to fully fledged UBI programmes remains: the little matter of funding. Mr Yang's original proposal for a

UBI, for instance, would have cost about 14% of GDP a year, though the price tag could be partly reduced by rationalising other welfare schemes. (For comparison, overall federal spending amounted to 21% of GDP in 2019.) Neither short-term UBI trials nor mass cash transfers in response to covid-19 required governments to take on the difficult task of financing enormous new expansions to the welfare state.

Much of the aid provided to households over the past year has been financed with new government borrowing, up to and including Mr Biden's proposals. As accommodating as markets have been of government borrowing over the past year, it seems unlikely that UBI dreams can be made real without the question of financing eventually being asked and answered.

Some politicians are beginning to grapple with the issue. Mr Lee reckons that a small UBI in South Korea could be paid for by adjusting the existing budget, but he allows that increasing the generosity of payments would require additional money. Taxes on land, carbon emissions and digital services are his preferred funding mechanisms. Mr Yang, for his part, argues that a combination of curbs to spending inefficiencies and philanthropic donations could pay for his proposed cash transfers (which would cover only the poorest New Yorkers).

But where the great welfare-state expansions of the mid-20th century were enabled by a spirit of solidarity and self-sacrifice, forged in depression and war, which made tax-financing of new benefits politically possible, the new enthusiasm for cash transfers owes more to a broad-based relaxation in concern about government borrowing. As the pandemic ends, that relaxed attitude may change as well, among some segments of the political spectrum at least. Only then can you learn how far along the path to a UBI the pandemic has actually moved society. ■

Some basic facts

Universal basic income, selected experiments*

Trial	Location	Payment	Payout duration	Recipients
Alaska Permanent Fund Dividend (1982-)	United States, Alaska	Around \$1,000-2,000 annually	Indefinite	Around 635,000 people a year [†]
Mein Grundeinkommen (2015-)	Germany	€1,000 (\$1,200) monthly	1 year	752 people
Basic Income Experiment (2017-18)	Finland	€560 (\$672) monthly	2 years	2,000 people
Give Directly (2017-30)	Kenya	\$0.75 per day for some, lump sum for others	2-12 years or lump sum	20,847 people
Baby's First Years (2017-22)	United States, selected cities	\$333 monthly for half of group; \$20 for other half	40 months	1,000 people
Youth Basic Income Programme (2018-)	South Korea, Gyeonggi province	250,000 won (\$212) quarterly	Indefinite	175,000 people
Citizens' Income Project (2019-)	Brazil, Marica	R\$130 (\$30) monthly; R\$300 from April 2020	Indefinite	42,000 people

Source: Stanford Basic Income Lab; *The Economist*

*At March 3rd 2021 †Average over 2008-18

Free exchange | The fragile four

Which emerging markets are most vulnerable to American financial tantrums?



THERE ARE few greater honours than becoming finance minister of your country. But there are better and worse days to start the job. Chatib Basri became finance minister of Indonesia, the fourth-most-populous country in the world, on May 21st 2013. That was only a day before the start of a financial sell-off known as the “taper tantrum”. Yields on American Treasuries rose abruptly after Ben Bernanke, then chairman of the Federal Reserve, spoke about reducing (or tapering) the Fed’s bond purchases. Higher American yields shattered the appeal of emerging markets, undermining their currencies, bonds and shares. “I had very little time to adjust,” Mr Basri noted in 2016.

Policymakers in emerging markets now fear a second such tantrum. As Treasury yields jumped at the end of last month, a broad index of emerging-market shares fell by over 7% in little more than a week. This is “shaping up to be a bruiser”, wrote Robin Brooks of the Institute of International Finance, a bankers’ group, on Twitter. Markets have calmed down in recent days. But if they again lose their composure, which emerging economies will be worst hit and why?

One way to identify future casualties is to look at the characteristics of past victims. Back in 2013 Indonesia was one of an unfortunate group of emerging markets dubbed the “fragile five” by James Lord of Morgan Stanley, a bank. The group, which also included Brazil, India, South Africa and Turkey, were all struggling with inflationary pressure, an overvalued exchange rate and a conspicuous current-account deficit (which measures a country’s trade deficit among other things). A few months into the tantrum Indonesia reported that its deficit had increased to 4.4% of GDP. The “market went into shock”, Mr Basri recalls.

Similar factors were combined into a “vulnerability index” by the Fed’s own economists in 2014. For the most part, the worse a country scored on the index, the more its currency fell in the taper tantrum. This kind of evidence has prompted Fed officials ever since to argue that the sensitivity of emerging markets to the Fed’s words and deeds depends a lot on economic fundamentals in the emerging markets themselves.

To the Fed’s critics, that can sound like blaming the victim. But it is also a hopeful message. It implies that emerging markets have

some control of their own fates. They are not “purely passive objects of the effects of Fed policy decisions”, as Mr Bernanke put it in 2015. Mr Basri has recounted the numerous measures he and other policymakers introduced to make Indonesia less fragile. They narrowed the country’s current-account deficit by raising interest rates, tightening credit regulations and cutting fuel subsidies, despite the political damage that would ensue. Cabinet discussions were very “dynamic”, Mr Basri writes.

Indeed, judged by the criteria of 2013, emerging markets today look far less fragile than they once were. Inflation is lower (only 1.4% in Indonesia) and “exchange-rate valuations have cheapened up considerably”, says Mr Lord. Their current accounts are also “much improved”. Indonesia’s is now in surplus, as are India’s and South Africa’s.

These past indicators of fragility, however, may not be appropriate for 2021. The pandemic has depressed demand and curtailed imports, which has temporarily narrowed current-account deficits around the world. But the fight against covid-19 has also dramatically widened another kind of deficit: the gap between government spending and revenues. Budget deficits averaged over 10% of GDP across the fragile five last year, according to the IMF. Fiscal sustainability “has become the key macro area of concern for some emerging markets”, Mr Lord says.

Bond strategists at HSBC, a bank, published an alternative ranking of vulnerable emerging economies on March 2nd. The least resilient, according to their scorecard, are Brazil, Indonesia, Mexico and South Africa. These economies have all been prone to current-account deficits in recent years, even if the pandemic has flattered the latest figures. And sizeable government debt in South Africa and especially Brazil leaves them exposed to any jump in interest rates, which are now unusually low.

The fairweather four

These are not the only potential sources of vulnerability. When American yields rise and the dollar strengthens, countries that have borrowed heavily in hard currencies find their debts harder to bear. But the trouble need not end there, according to Valentina Bruno of the American University in Washington, DC, and Hyun Song Shin of the Bank for International Settlements (BIS). Any deterioration in the creditworthiness of one borrower in an international lender’s portfolio can limit the risks it is willing to take on other emerging markets, even those that mostly borrow in their own currency. Boris Hofmann and Taejin Park of the BIS have shown that a rising dollar is a particular danger to emerging markets that have sold a large share of their bonds to foreigners. One reason why Mexico is on HSBC’s worry list and Turkey is not is that foreigners hold 46% of Mexico’s local-currency government bonds and less than 7% of Turkey’s.

These findings create a headache for conscientious finance ministers in emerging markets. If they strive to reform their economies to make them less fragile, they will become more attractive to foreign investors, who will then snap up a greater share of their bonds. But that could make them more vulnerable to a sell-off whenever global financial conditions darken. Indonesia’s reforms after the taper tantrum soon won praise from the IMF and attracted foreign buyers back to its bond market. But, Mr Basri admits, these inflows increased the vulnerability of Indonesia’s economy to a reversal when global markets wobbled again in 2015. Emerging economies are not powerless victims of the Fed. But they can be hapless victims of their own success. ■



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Computers and sign language

Unspoken understanding

The race to teach sign language to computers

USING A computer used to mean bashing away at a keyboard. Then it meant tapping on a touchscreen. Increasingly, it means simply speaking. Over 100m devices powered by Alexa, Amazon's voice assistant, rest on the world's shelves. Apple's offering, Siri, processes 25bn requests a month. By 2025 the market for such technology could be worth more than \$27bn.

One group, though, has been left behind. The World Health Organisation counts 430m people as deaf or hard of hearing. Many use sign languages to communicate. If they cannot also use those languages to talk to computers, they risk being excluded from the digitisation that is taking over everyday life.

Many have tried to teach computers to understand sign language. There have been plenty of claims of breakthroughs in recent years, accompanied by so-called solutions ranging from haptic gloves that capture the wearer's finger movements to software that detects distinct hand shapes. Many of these have won acclaim while alienating the very people for whom they are ostensibly designed. "The value for us

basically is zero," says Mark Wheatley, the executive director of the European Union of the Deaf (EUD).

It is easy to see why. Gloves are intrusive, as are similar technological solutions such as body-worn cameras. Both require users to adapt to the needs of hearing people. Hand-shape recognition, while useful, cannot by itself handle the full complexity of sign languages, which also rely on facial expressions and body movements. Some projects have been touted as offering cheap alternatives to human interpreters in places like hospitals, police stations or classrooms, where the cost of even small errors can be very high.

But things are improving. Research groups, which increasingly include deaf

scientists, are asking how technology can best serve deaf people's interests. Students of sign languages are compiling databases, known as corpora, full of examples of how the languages are used. Programmers are trying to turn them into useful products.

As with spoken languages, sign languages—of which the world has several hundred—possess their own grammars, idioms and dialects. Again like spoken languages, the hard-and-fast rules of grammar books do not really capture the subtleties of everyday usage. Single signs can be shorthand for complex ideas. Like speakers, signers often take shortcuts, such as representing two-handed signs with a single hand. They set up reference points within their signing space which can be vital for meaning. Correctly interpreting all this is much harder than recognising spoken syllables or written letters.

Generating data is tricky, too. Research led by a team at Microsoft, a big computing firm, and published in 2019, estimated that a typical publicly available corpus of a spoken language consists of around a billion words from as many as 1,000 different speakers. An equivalent data-set in a sign language might have fewer than 100,000 signs from just ten people. Besides large numbers, a good corpus also needs variety. This means conversations between native signers of diverse backgrounds, dialects and levels of fluency. Because deaf people more often have physical disabilities than do those with unaffected hearing, representing those with restricted fluency of ▶▶

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▶ movement is important.

Thomas Hanke, a researcher at the University of Hamburg, has, along with his colleagues, assembled a sign-language library containing about 560 hours of conversations, and which includes many dialects found in Germany. Originally, Dr Hanke asked participants in the project to travel to Hamburg. But while in the city, many volunteers started incorporating local signs into their communications. That skewed the data. Now, he says, he travels to his participants instead, and has been criss-crossing the country in a mobile studio for the best part of two years.

Collecting data, though, is the easy bit. Computers are slow learners, and must be told explicitly what each example means. That requires annotating everything—every movement, facial expression and subtlety of emphasis. This takes time, and lots of it. After eight years, Dr Hanke has only 50 hours of video which he is confident are annotated correctly.

Microsoft's researchers are using crowdsourcing to improve the amount and quality of data available. Danielle Bragg and her colleagues at the firm's campus in Massachusetts are developing a smartphone version of "Battleship", a game in which each player tries to sink their opponent's ships by indicating locations on a grid. In Dr Bragg's version, each grid square is associated with specific signs. Players not only generate signing data of their own, but also confirm the meaning of signs made by their opponents.

Privacy is a particular concern, since collecting sign-language data requires recording participants' faces rather than just their voices. When Dr Hanke tried to record people's gestures anonymously, their idiosyncratic signing techniques were so distinctive they could still be identified. Dr Bragg plans to use facial filters, or to replace faces with artificially generated alternatives. That will interfere with the quality of the data, but she hopes that lower quality will be made up for by greater quantity.

If enough data can be gathered, researchers with a good understanding of deaf culture and machine learning can achieve impressive results. The 25-person team at SignAll, a Hungarian firm, includes three deaf people and claims to be one of the biggest in the field. The firm's proprietary database contains 300,000 annotated videos of 100 users using over 3,000 signs from American Sign Language (ASL), one of the most widespread. It was collected with help from Gallaudet University in Washington, DC, the only university which caters specifically for deaf students.

SignAll's software can recognise ASL, though not yet at the speeds at which native signers communicate. Its current product, SignAll 1.0, can translate signs into written English, allowing a hearing in-

terlocutor to respond with the help of speech-to-text software. But it relies on pointing three cameras at a signer wearing special motion-tracking gloves—a significant burden.

That may soon change. Zsolt Robotka, SignAll's boss, says the firm hopes to offer a glove-free option. It is also putting the finishing touches to a product that works with a single camera on a smartphone. If that technology can be integrated into other apps, it could allow deaf people to use their phones to do things like searching for directions, or looking up the meanings of unknown signs, without needing to resort to the written form of a spoken language.

Crossing the valley

For the moment, Dr Robotka's emphasis is on translating sign language into text or speech. Translating in the other direction poses greater difficulties, one being how to generate visual representations of sign language. The standard approach has been to use computer-generated avatars. But many fall into the "uncanny valley", a concept from computer graphics in which artificial humans fall just short enough of verisimilitude that they instead look eerie and disturbing.

Bridging the valley would permit widespread two-way communication. Creating smartphone apps that can recognise a range of European sign languages, and translate back and forth between these and oral speech, is one aim of two new multinational academic consortia: the SignON project, and the Intelligent Automatic Sign Language Translation project, also known as EASIER. Both are working with the EUD, which represents 31 national associations across the continent.

SignON is targeting British, Dutch, Flemish, Irish and Spanish sign languages and, with the exception of Flemish, their hearing equivalents. Working with several European universities, it aims to solve three problems. One is to improve the machine-learning algorithms that recognise signs and their meaning. Another is to work out how best to interpret sign languages' distinctive grammars. Finally, it will try to create better avatars. EASIER, of which Dr Hanke's team at Hamburg is one of 14 partners, has similar goals: namely sign language recognition, robust two-way translation and avatar development.

Money and attention are always welcome. But previous attempts to automate the translation of sign language have too often been directed at making life convenient for those with normal hearing rather than truly trying to help the deaf. This time, observers hope that a more sensitive approach will yield more useful products. "It's a wonderful opportunity for us," says Mr Wheatley of the EUD. "We've got no time for cynicism." ■

Face-masks and covid-19

Helpful humidity

As well as filtering air, face-masks may boost the immune system

FACE-MASKS HELP reduce the spread of SARS-COV-2, the virus that causes covid-19. Several studies have reported the more surprising finding that, even if wearers do become infected, their disease is usually milder. Now Joseph Courtney and Ad Bax, a pair of researchers at the National Institutes of Health in Bethesda, Maryland, think they may have worked out why. As they report in the *Biophysical Journal*, it comes down to humidity, the immune system, and the protective powers of mucus.

At first glance, there may not seem much of a mystery to unravel. Masks cut the number of infectious particles entering the nose and mouth. One might expect, therefore, that severe disease would be less likely. But it is not so. One vital factor which predicts disease severity is how far viral particles make it into a person's lungs. Cheap cotton face-masks struggle to block the smallest aerosols, which are the most likely to penetrate deeply. Dr Courtney and Dr Bax wondered if something else might explain their protective effect.

One of the body's first lines of defence against airborne pathogens is known as the "mucociliary clearance mechanism". Sticky mucus in the nose and respiratory tract snares viruses and bacteria. Little hairs known as cilia push the mucus into the throat. From there it is swallowed and potent stomach acids destroy the invaders. But this mechanism relies on the relevant ▶▶



Warm, damp—and safe

▶ body parts staying moist.

That is harder in winter, for as air gets colder, its capacity to hold water falls. Lower humidity tends to dry out the respiratory tract. This is one reason why many upper-respiratory viruses, such as influenza, flourish in the winter.

Dr Courtney and Dr Bax speculated that masks may help keep things damp. They reasoned that, as a person exhales, water vapour would condense on the inside of a mask. Then, upon inhalation, dry air passing through the mask would collect the deposited water and bring it back into the respiratory tract and lungs. That could be handing a mask-wearer's immune system a significant advantage.

Keen to test their idea, the researchers checked several masks at 37°C, 22°C and 8°C. They breathed into a sealed box packed with sensitive instruments, and worked out humidity levels in their upper respiratory tracts. They found that, although all masks increased humidity levels to some extent, the heavy cotton mask did best of all. In the hottest room it boosted the relative humidity of inspired air by over 50%, compared with breathing without a mask. In the cold room, that number rose to 300%. (The other masks recorded figures of between 150% and 225%.) That suggests that, besides filtering out at least some of the viral particles floating about in the air, masks help keep a person's snot levels healthily high. ■

Carbon capture and storage

Supergrass

Plants in the ocean are better at storing carbon than those on land

OFF THE coast of Formentera, an island in the Spanish Mediterranean, lives an organism that stretches 15km from one end to the other. *Posidonia oceanica*, more prosaically known as seagrass, spreads by sending shoots out beneath the sediment. Entire meadows, covering several hectares, can thus be made up of a single organism. The grasses are long-lived, too. The vast meadow in Formentera is thought to have been spreading for tens or hundreds of thousands of years.

But the seagrass is more than just a biological curiosity. Along with two other kinds of coastal ecosystem—mangrove swamps and tidal marshes—seagrass meadows are particularly good at taking carbon dioxide from the air and converting it into plant matter. That makes all three ecosystems important for efforts to control climate change.

This role was highlighted in a report published on March 2nd by UNESCO, an arm of the United Nations, on “blue carbon”—the sort captured by Earth's oceanic and coastal ecosystems. In total around 33bn tonnes of carbon dioxide (about three-quarters of the world's emissions in 2019) are locked away in the planet's blue-carbon sinks. Research by Carlos Duarte, the report's author and a marine ecologist at King Abdullah University in Saudi Arabia, has shown that one hectare of seagrass can soak up as much carbon dioxide each year as 15 hectares of rainforest.

All this is attracting interest in blue carbon from those keen to use natural processes, rather than human technologies such as direct-air capture, to suck greenhouse gases from the atmosphere. In 2018 Apple partnered with Conservation International, a charity, to protect 11,000 hectares of mangroves on the Colombian coast. The firm estimates the project could lock away around 1m tonnes of carbon.

One reason that blue-carbon ecosystems make such effective sinks is that submerged forests are denser than their land-based equivalents. They can also trap floating debris and organic matter, which settles on the sea floor and can double the amount of carbon stored away.

They possess another advantage, too. Unlike forests on land, blue-carbon ecosystems do not burn. Climate change is intensifying wildfires around the world. As forests burn, their carbon stocks are released back into the atmosphere. And fires can impede a forest's ability to capture carbon even after they have burned out. In a study published on February 25th in *Nature Ecology and Evolution*, researchers at the University of Stanford found that repeated fires favour slow-growing tree species. These are better able to survive blazes, but they are also less effective at soaking up carbon than faster-growing species.

Submerged forests may be impervious to fires, but they remain vulnerable to other sorts of disasters. In May 2020 cyclone Amphan destroyed 1,200 square kilometres of mangrove forest on the border between Bangladesh and the Indian state of West Bengal. A marine heatwave in Australian waters in 2010 and 2011 damaged around one third of the world's largest seagrass meadow, in Shark Bay. Over the next three years field studies showed that uprooted plants were releasing their carbon back into the atmosphere.

Fortunately, an older, man-made ecological disaster suggests that restoring damaged blue-carbon ecosystems is possible. During the Vietnam war, napalm and a cocktail of weaponised herbicides destroyed more than half of the mangroves in the Mekong delta. A report published in 2014 by the International Society for Mangrove Ecosystems showed that an intense

post-war replanting programme was able to restore it within two decades.

And there is more to such ecosystems than simply acting as sponges for greenhouse gases. They also serve as buffers for vulnerable shorelines, shielding them from storms that barrel in from the high seas. One study of 59 subtropical countries estimated that by dampening waves and providing natural barriers to storm surges, mangrove forests prevent more than \$65bn in property damage each year, and help shelter more than 15 million people. Protecting and expanding them, then, appears to be a no-brainer. ■



Spies and technology

Machine intelligence

Intelligence agencies are grappling with the promise—and pitfalls—of AI

WHEN IT comes to using artificial intelligence (AI), intelligence agencies have been at it longer than most. In the cold war America's National Security Agency (NSA) and Britain's Government Communications Headquarters (GCHQ) explored early AI to help transcribe and translate the enormous volumes of Soviet phone-intercepts they began hoovering up in the 1960s and 1970s.

Yet the technology was immature. One former European intelligence officer says his service did not use automatic transcription or translation in Afghanistan in the 2000s, relying on native speakers instead. Now the spooks are hoping to do better. The trends that have made AI attractive for business in recent years—more data, better algorithms, and more processing power to make it all hum—are giving spy agencies big ideas, too. ▶

▶ On February 24th GCHQ published a paper on how AI might change its work. “Machine-assisted fact-checking” could help spot faked images, check disinformation against trusted sources and identify social-media bots that spread it. AI might block cyber-attacks by “analysing patterns of activity on networks and devices”, and fight organised crime by spotting suspicious chains of financial transactions.

Other, less well-resourced organisations have already shown what is possible. The Nuclear Threat Initiative, an American NGO, recently showed that applying machine learning to publicly available trade data could spot previously unknown companies and organisations suspected of involvement in the illicit trade in materials for nuclear weapons. But spy agencies are not restricted to publicly available data.

Some hope that, aided by their ability to snoop on private information, such modest applications could pave the way to an AI-fuelled juggernaut. “AI will revolutionise the practice of intelligence,” gushed a report published on March 1st by America’s National Security Commission on Artificial Intelligence, a high-powered study group co-chaired by Eric Schmidt, a former executive chairman of Alphabet, Google’s parent company, and Bob Work, a former deputy defence secretary.

The report does not lack ambition. It says that by 2030 America’s 17 or so spy agencies ought to have built a “federated architecture of continually learning analytic engines” capable of crunching everything from human intelligence to satellite imagery in order to foresee looming threats. The commission points approvingly to the Pentagon’s response to covid-19, which integrated dozens of data sets to identify covid-19 hotspots and manage demand for supplies.

Yet what is possible in public health is not always so easy in national security. Western intelligence agencies must contend with laws governing how private data may be gathered and used. In its paper, GCHQ says that it will be mindful of systemic bias, such as whether voice-recognition software is more effective with some groups than others, and transparent about margins of error and uncertainty in its algorithms. American spies say, more vaguely, that they will respect “human dignity, rights, and freedoms”. These differences may need to be ironed out. One suggestion made by a recent task-force of former American spooks in a report published by the Centre for Strategic and International Studies (CSIS) in Washington was that the “Five Eyes” intelligence alliance—America, Australia, Britain, Canada and New Zealand—create a shared cloud server on which to store data.

In any case, the constraints facing AI in intelligence are as much practical as ethi-

cal. Machine learning is good at spotting patterns—such as distinctive patterns of mobile-phone use—but poor at predicting individual behaviour. That is especially true when data are scarce, as in counter-terrorism. Predictive-policing models can crunch data from thousands of burglaries each year. Terrorist attacks are much rarer, and therefore harder to learn from.

That rarity creates another problem, familiar to medics pondering mass-screening programmes for rare diseases. Any predictive model will generate false positives, in which innocent people are flagged for investigation. Careful design can drive the false-positive rate down. But because the

“base rate” is lower still—there are, mercifully, very few terrorists—even a well-designed system risks sending large numbers of spies off on wild-goose chases.

And those data that do exist may not be suitable. Data from drone cameras, reconnaissance satellite and intercepted phone calls, for instance, are not currently formatted or labelled in ways that are useful for machine learning. Fixing that is a “tedious, time-consuming, and still primarily human task exacerbated by differing labelling standards across and even within agencies”, notes the CSIS report. That may not be quite the sort of work that would-be spies signed up for. ■

Hacking history

Origami in reverse

Cracking the security on a trove of 17th-century letters

A MODERN CORRESPONDENT wanting to communicate privately can use computerised encryption. Three hundred years ago, origami would have been a better bet.

Before gummed envelopes became common in the 1800s, letters were posted with no security wrapper. Privacy-minded writers relied instead on cunning combinations of folds, tucks, slits and seals, a practice Jana Dambrogio at the Massachusetts Institute of Technology has dubbed “letterlocking”.

Some, like the “chapel fold”, in which the letter is turned into its own envelope and sealed, were the equivalent of simple padlocks. Others were subtler. The “dagger trap” relied on a concealed wax seal that would leave a telltale rip once a letter had been opened.

But information about the practice is scarce. Most historical letters survive in

their opened form, leaving aficionados like Ms Dambrogio with little to go on but crease-marks and tears. The few that remain unopened present a different problem: how to read them without permanently damaging the letterlock. Now, in research published in *Nature Communications*, Ms Dambrogio and her colleagues have come up with a solution.

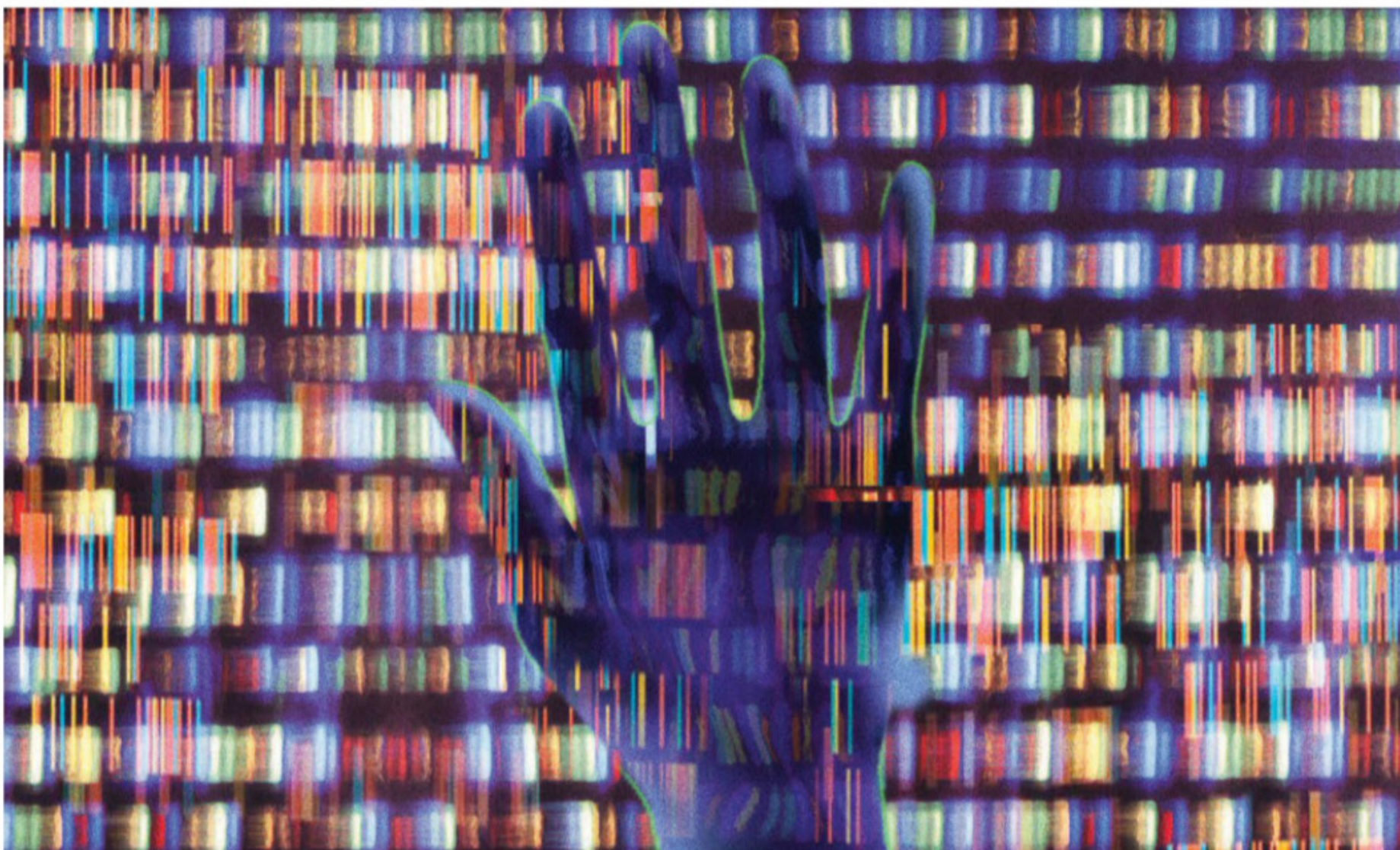
The letters in question are part of the Brienne Collection, a trove of thousands of undelivered 17th-century letters bequeathed to posterity by Dutch postmasters. The collection includes 577 unopened, letterlocked missives. To get at their letters’ contents while preserving the integrity of the locks, the team turned to x-rays and computers.

The key lay in knowing that the inks used at the time often contained iron. This meant that an x-ray microtomography scanner, of the kind usually reserved for distinguishing teeth or bone from soft tissue, could reliably distinguish the metallic letters from the paper background. Once the scan had also revealed the topography of the sheet, with the location of folds and creases mapped, the resulting model could be virtually unfolded by a computer to reveal the hidden text.

Though some imperfections remain—a hole left by a burrowing worm, for example, or the dry scratch of an ink-free nib—the legibility of the scans rivalled anything one would find in a research library, says Dr Starza Smith, a researcher at King’s College London. And although no spectacular secrets have yet emerged from the Brienne Collection, the technique seems to hold plenty of promise for future research into a fascinating historical practice.



Unfolding the secrets



Gene-editing

Tomorrow's world

Two books explore the power and peril of a technology that could transform the human race

WHAT THE transistor once was to electronics, so CRISPR gene-editing is to biotechnology today. It changes the field from something interesting but clunky, and of restricted application, into a game of infinite possibility that almost anyone can play. Transistors led to computer chips and the youthful entrepreneurs of the Homebrew Computer Club in Silicon Valley. Similarly, CRISPR editing has let a new generation of would-be billionaires explore ideas that range from systematising the search for the proteins targeted by drugs, to breeding pigs that might act as organ donors for transplants.

The transistor transformed the world; CRISPR may do that too. But it also offers a potential which transistors never did: that of transforming human beings themselves, by editing their genes. Those genes might be in body cells, in which case the changes would die with the person to whom they were made. Or they might be in germ cells, in which case they could be passed down the generations.

CRISPR People. By Henry Greely. MIT Press; 400 pages; \$27.95 and £22.50

The Code Breaker. By Walter Isaacson. Simon & Schuster; 560 pages; \$35 and £30

Henry Greely's book is about the first known attempt to perform this more enduring trick, how it spectacularly backfired on the man who did it, and whether, and in what circumstances, anyone should ever try to do it again. Mr Greely is both a bioethicist and a lawyer at Stanford University, qualifications perfectly suited to his subject—the moment when germline editing went from being a topic of philosophical speculation to hard reality. That

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moment came on November 25th 2018, when He Jiankui, a researcher at the Southern University of Science and Technology, in Shenzhen, China, announced that he had taken it upon himself to edit the genomes of two embryonic human beings (later born as twin girls), and to do so at a point in their development when those changes would affect their germ cells.

As depicted in "CRISPR People", Dr He is less the villain portrayed elsewhere than a naive and tragic character who was completely out of his depth. Certainly, he was driven by a yen for fame and fortune. But he seems also to have had a genuine desire to do good. His stated aim was to protect the girls from the threat of AIDS by tweaking their genes for a protein which the responsible virus, HIV, uses to lock onto cells it is about to infect. Almost up to the time that he went public with his experiment, he seems to have expected a hero's welcome. Instead, he ended up with a three-year prison sentence.

An inauspicious beginning, then, for the idea of human germline editing. But Mr Greely does not dismiss the possibility of future, better-conducted attempts to do it. As forensically as you would expect for an author of his background, he sets out the circumstances in which real need exists and no alternatives are available. Preventing HIV infection is not among them: it is easy to avoid and is treatable if avoidance fails. Mostly, his list consists of couples ▶▶

▶ who carry dangerous mutations in combinations that mean they are bound to be passed on to a child unless its genes are edited. This will not be many couples. But it will be a few.

Attitudes to germline editing may change if it proves safe and effective in these edge cases, and as knowledge increases of how human genomes work. At that point the real debate—about whether to allow the technique to be used to end the genetic lottery of reproduction, and maybe even to enhance human capabilities beyond any now currently found—will become live. How scientific knowledge expands in this way is the ultimate subject of “The Code Breaker”.

Peering over the edge

Mr Greely’s book is a serious and scholarly work. Walter Isaacson’s, by contrast, is a page-turner. It weaves history and contemporary events into a narrative propelled by the career of its protagonist, Jennifer Doudna. In 2020 she was the joint winner with Emmanuelle Charpentier of the Nobel chemistry prize for—as the citation by Sweden’s Royal Academy of Sciences laconically puts it—“the development of a method for genome editing”.

Most people agree with the academy in recognising these two as CRISPR editing’s principal inventors—though they were assisted by many others and drew on the work of many more. There are, however, dissenters who want to share the kudos, and particularly the patents. Dr Doudna and Dr Charpentier worked with bacteria. A lot of CRISPR’s applications will be in more complex creatures, such as human beings. And the researcher who first tried the technique on human cells was Feng Zhang of the Broad Institute in Cambridge, Massachusetts. The Broad’s lawyers are thus battling with those of the University of California, Berkeley, where Dr Doudna works, and with Dr Charpentier’s representatives, over whose patent applications give rights to what.

“The Code Breaker” casts light on this dispute, as it does on many other inner workings of American science. For Mr Isaacson, previously editor of *Time* magazine and chairman of CNN, author of acclaimed biographies of Steve Jobs and Leonardo da Vinci and now a history professor at Tulane University, is an insider’s insider. His book glitters with the names of the scientific great and good. Eric Lander, until recently head of the Broad and Joe Biden’s choice for chief scientific adviser, often takes the stage. So does George Church, a brilliant eccentric at Harvard who hopes to revive mammoths and was Dr Zhang’s PhD supervisor.

There are guest appearances by (among many others) Francis Collins, who has astutely survived from one presidential ad-

ministration to another as head of the National Institutes of Health; David Baltimore, a Nobel laureate who in 1975 helped organise the first scientific meeting to look at the ethics of genetic engineering; and Anthony Fauci, adviser on infectious diseases to seven presidents. The book offers a sympathetic assessment of a luminary who has fallen from grace—James Watson, co-discoverer of the structure of DNA and founding head of the Human Genome Project, who is no longer received in polite society after making some disgraceful remarks about race and intelligence.

Aside from Dr Doudna, however, the real star of the story is RNA. This is the neglected third member of life’s molecular trinity—the other two being DNA and proteins. Indeed, RNA probably predates those other two molecules and, crucially for current events, it forms the genetic material of many of the viruses that afflict human beings, including the one that causes covid-19. It is also the molecule which guides the CRISPR-editing complex to the right part of the genome to edit.

Mr Isaacson traces Dr Doudna’s career from its beginnings as a PhD student of Jack Szostak, another pillar of the scientific establishment and one of the proponents of the idea that the origin of RNA and the origin of life are intimately bound up. He follows the byways of her early studies on RNA enzymes, known as ribozymes, and her first introduction to CRISPR in its natural role as a bacterial defence against viruses. Later comes her fortuitous meeting with Dr Charpentier at a scientific conference in Puerto Rico. Fortune favours the prepared mind, and hers was well prepared to profit from what Dr Charpentier told her about her own work on CRISPR. But the meeting itself was serendipity.

Genes out of the bottle

In telling her tale, Mr Isaacson captures the scientific process well, including the role of chance. The hard graft at the bench, the flashes of inspiration, the importance of conferences as cauldrons of creativity, the rivalry, sometimes friendly, sometimes less so, and the sense of common purpose are all conveyed in his narrative. “The Code Breaker” describes a dance to the music of time with these things as its steps, which began with Charles Darwin and Gregor Mendel and shows no sign of ending.

What CRISPR and its successors will mean for humanity over the next few decades is anybody’s guess. At minimum, better health and more abundant food. At maximum, perhaps, a world where machines now made of metal and plastic are instead made of flesh and bone, pets and garden plants can be designed to order, mammoths once again thunder over the tundra, and human reproduction itself ceases to be a matter of luck. ■

Cyber-security

Zero hour

This Is How They Tell Me The World Ends.

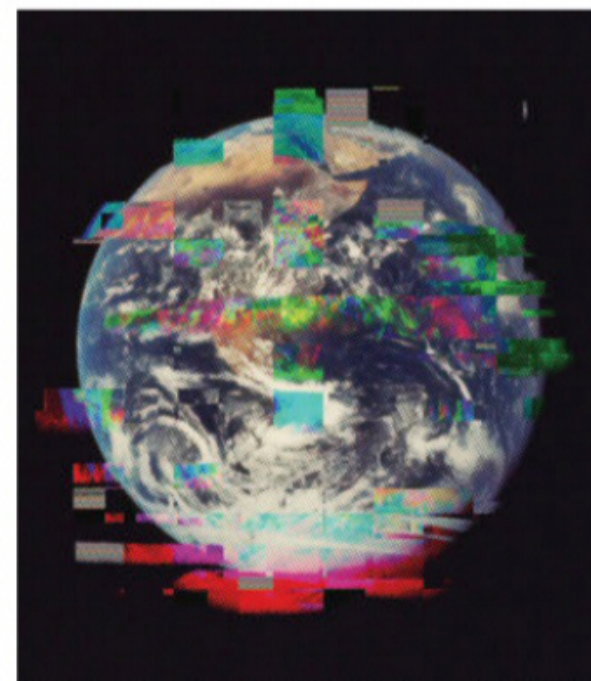
By Nicole Perlroth. *Bloomsbury*; 528 pages; \$21 and £14.99

IF YOU DISCOVER that a favourite vending-machine dispenses free chocolate when its buttons are pressed just so, what should you do? The virtuous option is to tell the manufacturer, so it can fix it. The temptation is to gorge. More lucrative still might be to sell the trick to others—including those with larger appetites and fewer scruples. But when the weaknesses of a system can be bought and sold, the results can be calamitous, as “This Is How They Tell Me The World Ends” shows.

Nicole Perlroth, a cyber-security correspondent for the *New York Times*, has produced an engaging and troubling account of “zero-day exploits”. An exploit is a piece of code that takes advantage of a vulnerability in software, typically to gain access or do harm. A zero-day exploit is rarer: it targets a hitherto undiscovered—and therefore undefended—blind spot.

Twenty years ago, exploits for Windows software yielded “pennies on the dollar”, a former hacker recalls. But as software became ubiquitous—running utilities, nuclear plants and warplanes—it grew more alluring. Zero-days became the “blood diamonds of the security trade”, says Ms Perlroth, fetching six or seven figures depending on their target and potency.

Such price signals worked as you would expect. Young men—in this story, there are few women—who once unearthed bugs for fun found a rich seam in governments eager to acquire and stockpile zero-days for ▶▶



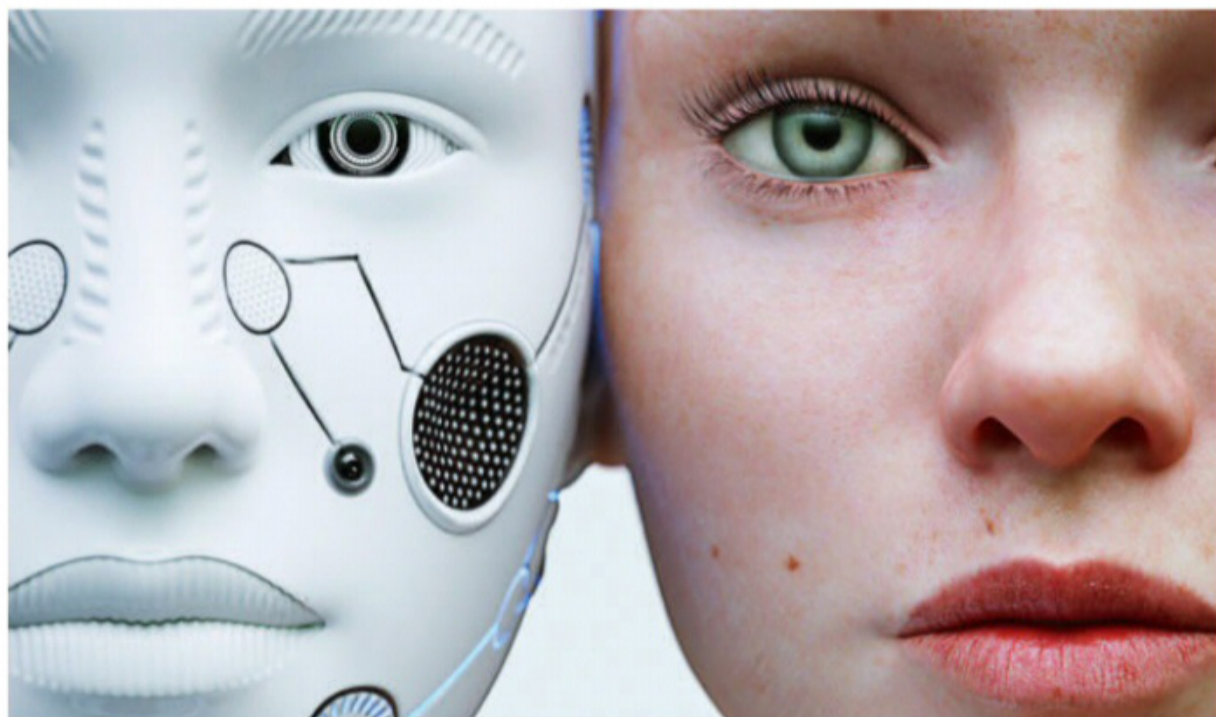
use against their rivals. A high-minded hacker could choose to sell the fruits of his labour to defenders rather than attackers, as software companies began offering ever-larger “bug bounties”. Google even matched bounties that hackers donated to charity; one German whizz thus lavished funds on kindergartens in Togo, schools in Ethiopia and solar plants in Tanzania.

The trouble is that spiritual rewards tend to pale beside pecuniary ones. “If we wanted to volunteer, we’d help the homeless,” sneers Chaouki Bekrar, the French founder of Vupen, one of many brokers that bought exploits from hackers and sold them, at spiralling prices, to intelligence agencies. Many such brokers were veterans of America’s National Security Agency (NSA), who realised they could make far more money selling exploits to their old employers than churning them out in-house for a government wage.

Some of those former spooks insist that they will sell zero-days only to supposedly reputable clients, such as American spy agencies and police forces. But Ms Perlroth paints a picture of a global market in which deep-pocketed autocrats can snap up exploits to use against foes and dissidents with little oversight. When French regulators revoked Vupen’s export licence, it simply upped sticks—to Washington, DC.

This secretive market is difficult to penetrate, but Ms Perlroth has dug deeper than most and chronicles her efforts wittily. Her focus is on America, the world’s pioneering and pre-eminent cyber-power, which, she persuasively argues, has tilted too far towards cyber-offence. She describes how the NSA sucked talent away from the defence-minded Department of Homeland Security: “It had always been more fun to be a pirate than to join the Coast Guard.” She is right that American spies, like most others, hoarded zero-days and backdoors in software for longer than is advisable, rather than disclosing them to technology companies, in the mistaken belief that rivals could not worm through the same holes. (Spoiler: they did, as Ben Buchanan described in “The Hacker and the State”, published last year.)

Yet Ms Perlroth lays too much blame at America’s door. Its willingness to pay top dollar for zero-days inflated their prices, but that does not mean it “spawned and sponsored” today’s market. The author herself vividly documents a flourishing business in Europe and Latin America, buoyed by customers from Singapore to Tajikistan. China and Russia buy hacking tools, and use them, not because America showed them how, but because they can. The trade in digital lock-picks has thrived not because America stimulated parts of it in the 1990s and 2000s, but because what is behind the locks has become pivotal to economies and societies everywhere. ■



Kazuo Ishiguro’s new novel

More than human

A Nobel prizewinner’s new book is a rich meditation on love and morality

Klara and the Sun. By Kazuo Ishiguro.
Knopf; 320 pages; \$28. Faber; £20

IN “THE BURIED GIANT”, published in 2015, an elderly couple make a perilous journey through a war-ravaged post-Arthurian Britain, a land mysteriously afflicted by widespread amnesia. Sir Kazuo Ishiguro’s slippery allegory about the aftermath of conflict, and the value of forgetting as well as remembering, confounded some critics. It was seen as a puzzling left-turn into fantasy—a tag the author rejected, prompting accusations that not only had he raided a downmarket genre, he had done so ungraciously.

These arguments fell away when Sir Kazuo, now 66, won the Nobel prize for literature in 2017 (he was knighted two years later). But they may resurface now that he has turned to science fiction—or rather turned back to it, following his boarding-school dystopia “Never Let Me Go” (2005), which contemplated human cloning. Set in an overheated, rigidly stratified America, “Klara and the Sun”, his first post-Nobel novel, is a coming-of-age tale in which sophisticated solar-powered androids—entirely human in appearance and known as AFs, or Artificial Friends—are purchased by wealthy parents as company for their offspring. These children are taught remotely via smartphones and are genetically modified, or “lifted”, in a potentially fatal procedure intended to guarantee future entry into an elite university.

One of the book’s pleasures is that it trusts the reader to infer such details. What

makes the subtly sinister setting doubly strange is that it is refracted through the partial understanding of the narrator, an especially sensitive AF named Klara, who recounts her bittersweet experience serving a mysteriously ill teenager, Josie. In a distinctly unrobotic bout of magical thinking, she begs the sun—the source of her energy—to cure Josie, vowing in return to combat air pollution. Keeping her bargain requires a furtive and quixotic quest and help from Josie’s loyal friend, Rick. Unlike Josie, Rick has not been “lifted”, one of many points of slow-burn conflict.

Sir Kazuo’s characteristically unassuming style draws the reader into a richly layered plot. His speculative scenario of technological innovation is also a domestic satire on aspirational parenting. Philosophical questions of faith and mortality mix with storylines involving boy trouble and mother-daughter strife. Josie’s sickness is a metaphor for the pressures of a hot-housed adolescence, yet the story holds attention on its own terms, too.

The effect ultimately resembles a cross between “Never Let Me Go” and “The Remains of the Day” (1989), with Klara in the place of Stevens, the butler whose first-person narration provided a between-the-lines portrait of morality among the English upper crust in the interwar years. As a rebuke to the hyper-engineered society that created her, Klara’s paradoxically humane conduct lends the book a melancholy beauty. Her devotion to a form of true love may be artificial, but, tragically, it is more than her flesh-and-blood counterparts can offer one another. ■

Artistic licence on screen

History plays

A new breed of dramas uses the past as a playground rather than a corset

TWO TELEVISION shows about Catherine II of Russia recently had their premiere. The first, “Catherine the Great”, a collaboration between Sky in Britain and HBO in America, was released in October 2019. Set in the aftermath of the empress’s overthrow of Peter III, her husband, in 1762 the series was an earnest costume drama starring a *grande dame* of British acting, Helen Mirren. It focused on Catherine’s consolidation of power and her relationship with Grigory Potemkin, with the occasional speech about the Enlightenment and the solemn nature of statecraft.

The other show, “The Great”, was first released on Hulu, a streaming service, last year. A riotous comedy adapted by Tony McNamara from his own play, “The Great” begins with a young Catherine (Elle Fanning) leaving Prussia to marry Peter (Nicholas Hoult). Her hopes for a refined romance are dashed when she meets her foolish, barbaric spouse, whose main priorities are smashing things and shagging the women at court. Aided by her sharp-tongued maid and a weaselly courtier, Catherine plots a coup.

Notionally based on the same material, the two productions diverge drastically in content and tone. The difference captures a trend in historical dramas; more than that, it indicates an evolution in attitudes towards history itself in the world of entertainment, and perhaps beyond.

Beginning with a formal recap of the historical record, “Catherine the Great” treats its subject with reverence. By contrast, characters in “The Great” swear and discuss sex obsessively. The emperor is a borderline psychopath and uninterested in governing. The facts are bent wildly. Peter is on the throne when Catherine arrives, whereas in reality they were married for 17 years before he was crowned. In the show he is the son of Peter the Great, a paternity that lends him a minor Oedipus complex; the actual Peter III was the German-born grandson of his illustrious namesake. Yet this fast-and-very-loose approach—advertised in the drama’s winking introduction as “an occasionally true story”—further an irreverent trend that has developed over several years.

In 2015 “Hamilton”, a hip-hop musical about the Founding Fathers, showed that telling a story from the past in a fresh way could reap rewards. “The Death of Stalin” (2017) satirised the power struggle after the

despot’s demise; the actors spoke in British and American accents rather than affecting Russian ones. “The Favourite” (2018), written by Mr McNamara and Deborah Davis, depicted a love-triangle involving Queen Anne and two female courtiers in early 18th-century Britain. (Historians doubt the women were quite so intimate.) “Dickinson” (2019), created by Alena Smith, revisited the life of Emily Dickinson, a poet, in the run-up to America’s civil war. Its characters use modern slang; the soundtrack includes rap and pop.

In “The Great”, Catherine evinces the real empress’s intellectual curiosity and belief that she was born to rule. The factionalism and power-broking have a true-life nastiness. But unlike, say, “Hamilton”, which explained the constitutional convention of 1787 in rhyme, here history is less a subject than a scaffold, on which the story builds freely. Each of the writers “got asked to pick our favourite eight points from history”, says Gretel Vella, a member of the team. They would try to include these nuggets, but if it “didn’t work with where the characters in the story were going, then we kicked it out”.

That method has something in common with “Bridgerton”, a breaches-and-bonking drama about the marriage market of Regency England. In Netflix’s smash-hit, Queen Charlotte, the real-life consort of George III, appears as a minor character. In this telling she is mixed-race and uses her



Taking liberties in “The Great”

position to elevate people of colour to peerages. Julia Quinn, the author of the novels on which the show is based, says this tweak allows 21st-century audiences to “all have a little piece of the fairy-tale”. In “The Great”, too, the past is a playground, not a corset.

Beneath the high jinks is a very 21st-century sense that accurate knowledge of bygone lives is impossible and interpretations always subjective. If what survives for posterity is an incomplete and contested record, all writers must fill in gaps to craft a story. Today’s screenwriters acknowledge their inventions by inserting anachronisms that emphasise their modern perspective. The methods go beyond jarring profanities. By using a distorting fish-eye lens, Yorgos Lanthimos, director of “The Favourite”, drew attention to the film’s warped view of the court.

Them and us

As much as the eras in which they are set, the real subject, or target, of these productions is the costume drama of yore, with its pretence of verisimilitude and the claim to authoritative knowledge of the past that it implied. Think of the authentic Tudor gowns in “Elizabeth R”, starring Glenda Jackson as Elizabeth I. Maligned as it recently was for its own embellishments, even “The Crown” strives to mimic the texture of mid-20th-century life. “There is a culture in the UK of pretty stodgy classical costume drama,” says Ed Guiney, producer of “The Favourite”. The genre has typically had “a style that was very polite,” Mr McNamara adds. “That lends itself to the idea of being rethought and played with.”

Apart from the bawdiness and the zippy dialogue, one reason “The Great” and its like have proved compelling is that, like Shakespeare’s history plays, they cleverly use old tales to reflect on contemporary society. “Dickinson”, for example, devotes a lot of attention to fame and political polarisation. The poet and her times are meant as “a metaphor for looking at us”, says Ms Smith, the show’s creator. Mr McNamara considers “The Great” to be “more of a contemporary show than a period one”, in that it is “about a young woman trying to forge her own life, as much now as then”.

It may help that the scourge of covid-19 has seemed to shrink the gap between today’s world and that of previous centuries. “We’re now living in a time of death and plague and pestilence and war and things you associate with the past,” Mr Guiney says. Ultimately, he thinks, the analogy is encouraging. “There’s something kind of comforting and at the same time enlightening about going back to times in history where maybe people felt as vulnerable as we do now, and looking at how they navigated it and got through it. Because they did get through it.” ■

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Category

No.	Project size	Estimated Project Costs	Category	EOI Ref no.
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2	Medium size projects	Between KES 500Million-2Billion (4.5Million -18 Million USD)	Open to all consortia including international	EOI/MP/21
3	Large size projects	Over KES 2 Billion (18 Million USD)	Open to all consortia including international	EOI/LP/21

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CPF Financial Services will not reimburse respondents for the costs incurred for preparing a response, nor does issuance of this EOI obligate CPF Financial Services to award a subcontract or purchase order. If a Vendor is found to have made false or misleading claims or statements, obtains confidential information, or receives improper assistance, CPF Financial Services reserves the right to reject an EOI submitted by or on behalf of such a vendor.

Clarification of Submissions

CPF Financial Services may require a respondent to submit additional information.

Factors for Consideration

Responders are expected to write an explanation about how they can address each of these areas of interest by CPF financial Services, which will be used to determine if vendors shall be pre-qualified.

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- The vendor can prove they have the necessary financial resources to perform the work.
- Illustrative CVs of individuals on staff, or available to the vendor, who can perform the scope of work.
- Three past performance descriptions illustrating relevant experience delivering the required services
- Key equipment

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Vendors must complete their responses, in English, following the specifications outlined in the EOI application form below. The response format consists of all the sections:

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- A certified true copy of CR12
- Certified copy of the bank statement for the period September 1, 2020, to December 31, 2020.
- Copies of evidence of ownership of the listed key equipment
- Copy of certificate of registration with National Construction Authority i.e. must be NCAI for all the categories or equivalent of the same for foreign owned companies
- Complete all the relevant sections of the prequalification application form
- Registration with the relevant Ministries as a contractor for the various works where applicable.
- Any other document as requested in the prequalification document

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A complete set of pre-qualification documents may be downloaded from our website free of charge. (www.cpf.or.ke-information-center-tenders). Prequalification documents must be deposited in the Tender Box at Mezzanine Floor of CPF House (Lift lobby) to be received on or before 31st March 2021 at 11.00 a.m. local time. The duly completed prequalification documents which cannot fit into the Tender Box shall be received only between 8:00am - 11:00 a.m. on the same prequalification deadline day in the Procurement office. All Completed prequalification documents shall be enclosed in plain sealed envelopes, clearly marked with the category of project value being applied for, and be registered and addressed to:

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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*	2020†	% change on year ago latest	2020†	%		% of GDP, 2020†	% of GDP, 2020†	10-yr gov't bonds latest,%	change on year ago, bp	per \$ Mar 3rd	% change on year ago				
United States	-2.4	Q4	4.1	-3.5	1.4	Jan	1.2	6.3	Jan	-2.5		-14.9	1.5	45.0	-		
China	6.5	Q4	10.8	2.3	-0.3	Jan	2.5	5.2	Dec‡§	1.7		-5.8	3.1	53.0	6.46	8.1	
Japan	-1.2	Q4	12.7	-4.8	-0.6	Jan	nil	2.9	Jan	3.3		-10.5	nil	-8.0	107	0.6	
Britain	-7.8	Q4	4.0	-9.9	0.7	Jan	1.0	5.1	Nov††	-2.8		-14.3	0.8	32.0	0.72	8.3	
Canada	-3.2	Q4	9.6	-5.3	1.0	Jan	0.8	9.4	Jan	-2.1		-13.5	1.4	46.0	1.26	5.6	
Euro area	-5.0	Q4	-2.4	-7.1	0.9	Feb	0.3	8.3	Dec	2.9		-8.5	-0.3	34.0	0.83	7.2	
Austria	-4.0	Q3	54.6	-7.4	0.9	Jan	1.4	5.8	Dec	2.1		-8.6	-0.1	33.0	0.83	7.2	
Belgium	-5.1	Q4	-0.6	-6.3	0.5	Feb	0.4	5.8	Dec	-0.9		-9.4	-0.1	15.0	0.83	7.2	
France	-4.9	Q4	-5.7	-8.3	0.4	Feb	0.5	8.9	Dec	-2.3		-10.9	-0.1	19.0	0.83	7.2	
Germany	-3.6	Q4	1.4	-5.3	1.3	Feb	0.4	4.6	Dec	6.8		-4.8	-0.3	34.0	0.83	7.2	
Greece	-9.6	Q3	9.5	-9.9	-2.0	Jan	-1.3	16.2	Nov	-6.6		-9.2	1.0	-28.0	0.83	7.2	
Italy	-6.6	Q4	-7.5	-8.9	0.6	Feb	-0.1	9.0	Dec	3.2		-11.3	0.8	-25.0	0.83	7.2	
Netherlands	-2.9	Q4	-0.5	-4.4	1.6	Jan	1.1	3.6	Jan	8.4		-6.1	-0.4	13.0	0.83	7.2	
Spain	-9.1	Q4	1.6	-11.0	nil	Feb	-0.3	16.2	Dec	0.7		-12.3	0.3	4.0	0.83	7.2	
Czech Republic	-4.7	Q4	2.4	-5.7	2.2	Jan	3.2	3.2	Dec‡	3.6		-6.5	1.7	47.0	21.7	4.7	
Denmark	-2.5	Q4	2.5	-4.0	0.6	Jan	0.4	4.4	Dec	8.5		-3.6	-0.1	46.0	6.16	8.6	
Norway	-0.6	Q4	2.6	-1.3	2.5	Jan	1.3	5.0	Nov††	1.3		-4.2	1.4	38.0	8.48	8.7	
Poland	-2.8	Q4	-2.8	-2.8	2.7	Jan	3.4	6.5	Jan§	3.6		-7.9	1.6	-11.0	3.76	2.1	
Russia	-3.4	Q3	na	-3.1	5.2	Jan	3.4	5.8	Jan§	2.0		-3.8	6.9	59.0	73.9	-11.5	
Sweden	-2.1	Q4	-1.0	-3.0	1.6	Jan	0.5	9.3	Jan§	4.8		-3.5	0.4	69.0	8.40	12.0	
Switzerland	-1.6	Q4	1.3	-3.0	-0.5	Feb	-0.7	3.5	Jan	8.5		-3.7	-0.3	52.0	0.92	4.3	
Turkey	5.9	Q4	na	0.4	15.6	Feb	12.3	12.9	Nov§	-5.5		-3.7	13.1	118	7.44	-18.4	
Australia	-1.1	Q4	13.1	-2.9	0.9	Q4	0.8	6.4	Jan	1.6		-7.4	1.6	86.0	1.28	18.0	
Hong Kong	-3.0	Q4	0.7	-5.8	1.9	Jan	0.3	7.0	Jan††	6.2		-7.6	1.3	33.0	7.76	0.1	
India	0.4	Q4	42.7	-7.0	4.1	Jan	6.6	6.9	Feb	1.2		-9.3	6.2	-10.0	72.7	0.8	
Indonesia	-2.2	Q4	na	-2.2	1.4	Feb	2.0	7.1	Q3§	-1.6		-7.2	6.5	-30.0	14,245	0.3	
Malaysia	-3.4	Q4	na	-5.3	-0.2	Jan	-1.1	4.8	Dec§	4.8		-7.4	3.1	26.0	4.05	4.0	
Pakistan	0.5	2020**	na	-2.8	8.7	Feb	9.5	5.8	2018	0.1		-8.1	10.2	†††	-80.0	157	-1.9
Philippines	-8.3	Q4	24.4	-9.4	4.2	Jan	2.6	8.7	Q4§	3.4		-7.8	4.0	-41.0	48.5	4.5	
Singapore	-2.4	Q4	15.9	-5.8	0.2	Jan	-0.2	3.2	Q4	18.2		-13.9	1.4	-6.0	1.33	3.8	
South Korea	-1.2	Q4	5.0	-1.0	1.1	Feb	0.5	5.7	Jan§	3.8		-5.7	1.9	58.0	1,120	6.7	
Taiwan	5.1	Q4	5.8	3.1	-0.2	Jan	-0.2	3.8	Jan	14.8		-0.7	0.4	-13.0	27.8	8.1	
Thailand	-4.2	Q4	5.4	-6.1	-0.3	Jan	-0.8	1.5	Dec§	3.7		-6.4	1.7	79.0	30.3	4.1	
Argentina	-10.2	Q3	61.7	-9.7	38.5	Jan‡	42.0	11.7	Q3§	0.6		-8.6	na	na	90.2	-30.9	
Brazil	-1.1	Q4	13.3	-4.4	4.6	Jan	3.2	13.9	Dec‡††	-0.7		-15.8	8.7	212	5.75	-22.4	
Chile	-9.1	Q3	22.6	-6.2	3.1	Jan	3.0	10.2	Jan‡††	1.4		-7.9	2.9	-66.0	730	10.2	
Colombia	-3.5	Q4	26.5	-6.8	1.6	Jan	2.5	17.3	Jan§	-3.4		-8.8	5.7	nil	3,675	-6.6	
Mexico	-4.3	Q4	13.7	-8.3	3.5	Jan	3.4	4.5	Jan	2.6		-2.8	5.8	-71.0	20.9	-8.0	
Peru	-1.7	Q4	37.9	-12.0	2.4	Feb	1.8	13.1	Jan§	0.5		-9.0	4.4	56.0	3.68	-6.5	
Egypt	0.7	Q3	na	3.6	4.4	Jan	5.1	7.2	Q4§	-3.6		-7.9	na	na	15.7	-0.1	
Israel	-1.3	Q4	6.3	-2.4	-0.4	Jan	-0.6	4.5	Jan	4.0		-11.6	1.1	59.0	3.31	3.9	
Saudi Arabia	-4.1	2020	na	-4.1	5.7	Jan	3.4	8.5	Q3	-3.7		-11.0	na	na	3.75	nil	
South Africa	-6.0	Q3	66.1	-7.1	3.2	Jan	3.2	32.5	Q4§	1.1		-14.5	9.0	12.0	15.0	1.9	

Source: Haver Analytics. *% change on previous quarter, annual rate. †The Economist Intelligence Unit estimate/forecast. ‡Not seasonally adjusted. §New series. **Year ending June. ††Latest 3 months. †††3-month moving average. §§5-year yield. ††††Dollar-denominated bonds.

Markets

In local currency	Index Mar 3rd	% change on:	
		one week	Dec 31st 2020
United States S&P 500	3,819.7	-2.7	1.7
United States NAScomp	12,997.8	-4.4	0.8
China Shanghai Comp	3,576.9	0.4	3.0
China Shenzhen Comp	2,363.1	0.7	1.4
Japan Nikkei 225	29,559.1	-0.4	7.7
Japan Topix	1,904.5	0.1	5.5
Britain FTSE 100	6,675.5	0.2	3.3
Canada S&P TSX	18,320.7	-0.9	5.1
Euro area EURO STOXX 50	3,712.8	0.2	4.5
France CAC 40	5,830.1	0.6	5.0
Germany DAX*	14,080.0	0.7	2.6
Italy FTSE/MIB	23,046.8	-0.2	3.7
Netherlands AEX	663.4	-0.2	6.2
Spain IBEX 35	8,329.3	0.7	3.2
Poland WIG	57,897.0	0.5	1.5
Russia RTS, \$ terms	1,453.6	0.5	4.8
Switzerland SMI	10,771.9	0.4	0.6
Turkey BIST	1,531.1	3.2	3.7
Australia All Ord.	7,067.9	0.3	3.2
Hong Kong Hang Seng	29,880.4	0.5	9.7
India BSE	51,444.7	1.3	7.7
Indonesia IDX	6,376.8	2.0	6.7
Malaysia KLSE	1,588.5	2.0	-2.4

	index Mar 3rd	one week	Dec 31st 2020
Pakistan KSE	46,160.8	1.8	5.5
Singapore STI	3,000.4	2.6	5.5
South Korea KOSPI	3,083.0	2.9	7.3
Taiwan TWI	16,211.7	nil	10.0
Thailand SET	1,543.4	3.5	6.5
Argentina MERV	47,325.1	-4.6	-7.6
Brazil BVSP	111,183.9	-3.9	-6.6
Mexico IPC	46,377.5	2.7	5.2
Egypt EGX 30	11,393.3	-0.4	5.1
Israel TA-125	1,631.9	1.0	4.1
Saudi Arabia Tadawul	9,310.3	2.1	7.1
South Africa JSE AS	68,326.8	3.2	15.0
World, dev'd MSCI	2,741.7	-2.2	1.9
Emerging markets MSCI	1,378.0	0.1	6.7

US corporate bonds, spread over Treasuries

	latest	Dec 31st 2020
Basis points		
Investment grade	125	136
High-yield	378	429

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

Commodities

The Economist commodity-price index 2015=100	% change on			
	Feb 23rd	Mar 2nd*	month	year
Dollar Index				
All Items	193.9	168.5	9.6	54.0
Food	129.4	128.5	2.5	32.0
Industrials				
All	254.2	205.8	14.2	70.5
Non-food agriculturals	363.9	146.5	9.9	52.4
Metals	221.6	223.4	15.1	74.6
Sterling Index				
All items	209.9	184.3	7.1	41.5
Euro Index				
All items	176.9	154.9	9.3	42.7
Gold				
\$ per oz	1,805.4	1,727.1	-6.1	5.4
Brent				
\$ per barrel	65.5	62.9	9.3	20.4

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

For more countries and additional data, visit [Economist.com/indicators](https://www.economist.com/indicators)

Six of one

New data show that leading covid-19 vaccines have similarly high efficacy

A FEW MONTHS ago the biggest question about covid-19 vaccines was whether any of them would work. Today the problem in some countries is having too many to choose from. In Europe some people are spurning AstraZeneca's jab, preferring to wait for Pfizer's or Moderna's instead.

Such preferences stem from the results of clinical trials. Moderna and Pfizer, which make the same type of vaccine, announced an efficacy of 94-95%, whereas Johnson & Johnson and AstraZeneca reported 63-66%. Emmanuel Macron, France's president, has maligned AstraZeneca's jab as "quasi-ineffective" in older patients.

However, the gap in reported efficacy may say more about the trials than about the vaccines themselves. Some studies counted people with mild symptoms as positive cases; others did not. Those with lower reported efficacy used participants in countries where partly immune-resistant variants of SARS-CoV-2 are common. One tested only a single-dose regimen.

Fortunately, apples-to-apples comparisons are now possible, based on millions of people who got different vaccines in the same country at the same time. And recent data from Britain, which has given either Pfizer's or AstraZeneca's jabs to 20m people, paint a different picture from the trial results. Three studies show that single doses of the two jabs are similarly effective.

The latest paper, a preprint for the *Lancet* published on March 3rd, found that one dose of either jab is 80% protective against hospitalisation in people aged at least 80, starting 14 days after vaccination. Another study, in Scotland, included younger age groups and also found the two jabs had similar potency against hospitalisation.

For a virus seeking new hosts, this is bad news—which will only get worse. Few people in Britain have received second doses. However, Israel has almost finished a two-dose mass-vaccination programme using the Pfizer vaccine. According to the latest data from Israel, two doses are about 90% protective against any form of covid-19, including asymptomatic infection.

Pfizer's jab is pricey and must be stored in freezers. In contrast, AstraZeneca's is cheap and needs only normal refrigeration. If the AstraZeneca vaccine also matches Pfizer's efficacy, which now appears likely, it could play a leading role in ending the pandemic—so long as people do not reject it based on ill-founded swipes from the likes of Mr Macron. ■

→ Trials of covid-19 vaccines are too different to have comparable results

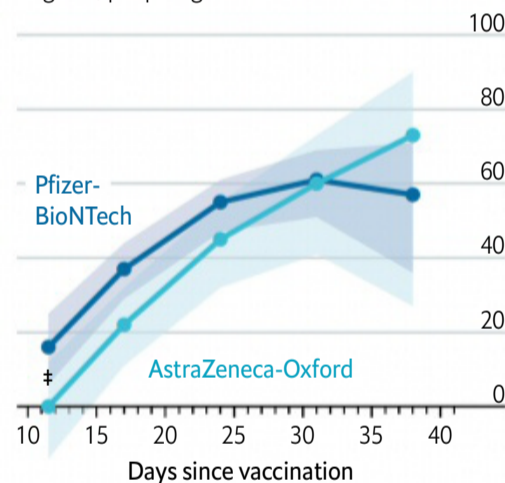
Vaccine	Measures of efficacy	Efficacy*, %	Key differences
Pfizer-BioNTech Doses ●●	Symptomatic covid-19 from seven days after the 2nd dose	95	Trial mostly in the US [†] , before resistant variants spread
Moderna ●●	Symptomatic covid-19 from 14 days after the 2nd dose	94	Trial in the US, before resistant variants spread
Johnson & Johnson ●	Severe covid-19 from 28 days after dose	85	One dose; some trial locations with resistant variants (Brazil, South Africa)
	Moderate/severe covid-19 from 28 days after dose	66	
AstraZeneca-Oxford ●●	Symptomatic covid-19 from 14 days after the 2nd dose	82	Some trial locations with resistant variants (Brazil, South Africa)
		63	

Doses 12+ weeks apart
Doses 4-12 weeks apart

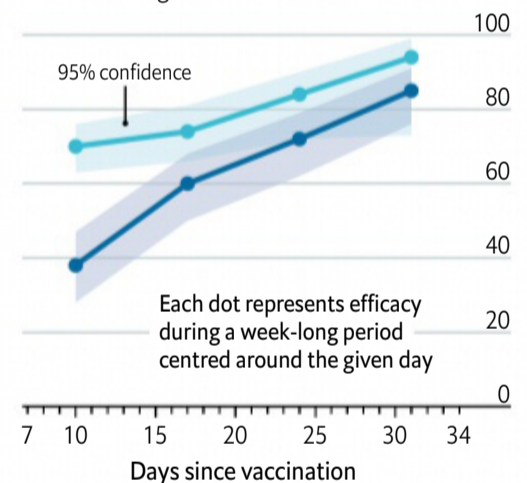
→ Mass-vaccination data suggest two types of vaccine have similar efficacy

Efficacy of a single dose, %

Against symptomatic disease England, people aged over 70



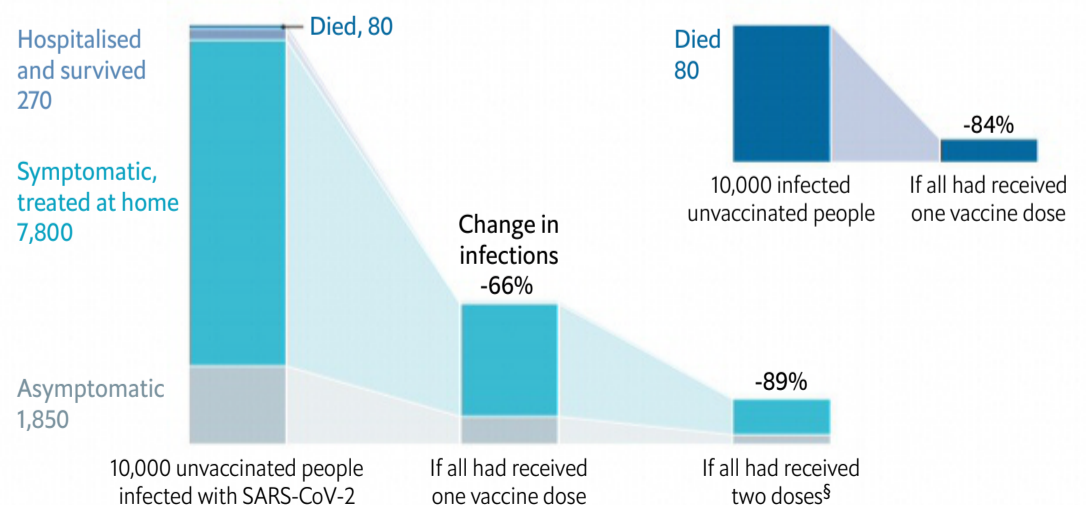
Against hospitalisation Scotland, all ages



→ Vaccines reduce infections, as well as risk of hospitalisation and death

Impact of Pfizer's vaccine on outcomes of exposure to SARS-CoV-2

Estimate based on data from Britain and Israel



*Reduction in frequency relative to placebo group †130 of 152 sites ‡Calculated from three days §No data on deaths Sources: "BNT162b2 mRNA covid-19 vaccine in a nationwide mass vaccination setting", by N. Dagan et al., 2021; studies run by Public Health England and Public Health Scotland; company press releases; *The Economist*



Beauty and defiance

Cicely Tyson, actress, died on January 28th, aged 96

SLOWLY, WITH infinite effort, the elderly black woman got out of the car. Helped by a friendly arm, she laboured up the steps to the terrace. But there, squaring her shoulders, lifting her chin, she shrugged her helpers off. She knew how to walk, and she could walk from here. Her aim was to get to the water fountain by the sheriff's office, the one that said "White Only". Step by dragging step, leaning on her cane, she pressed on. The white officers by the door let her pass; they could hardly obstruct an old woman. At the fountain she turned on the water, took a smallish sip, let it flow round her mouth to savour it. Then, with a cursory glance at the officers, she went slowly back.

To play this lead role in "The Autobiography of Miss Jane Pittman", in 1974, Cicely Tyson spent months preparing. The film required her to age from 19 to 110, when the fountain incident occurred. She herself was somewhere midway, 49, though her elfin body and taut skin might have made her half that. To delve inside the being of this ancient woman, once a slave, she put on blurring contact lenses and studied residents in nursing homes, noticing how their hands shook and their memories came and went. What she did not need to study was Miss Pittman's defiance.

Of that she already had plenty. She showed it most memorably on the day in 1963 when she went into Shalimar's barber shop in Harlem and asked to have her sleek bob cut away. For a while she had practised hairdressing herself, wielding her hot comb and pressing irons to straighten out those unkempt curls, as white people saw them. Now she would wear her hair natural. It happened to suit the latest part she was playing; but more than that, it showed her real self, and she felt beautiful. She kept that half-inch Afro for her TV role in "East Side/West Side", the first main role for a black actress in a series, astonishing Americans because her character had a serious career, as a secretary, and was comfortable in her skin. She then retained that lean, proud look for years. Many

activists marched, but her civil-rights statement was her face on stage and screen. Each time she chalked up a first—the first black woman to win an Emmy as a lead actress, for "Jane Pittman", and the first to receive an honorary Oscar, in 2018—she considered it not just a chance to be dazzling in ruffles, silk or lace, but a victory for humankind.

Defiance came naturally, as a black woman in a world where black misery was largely ignored and black beauty dismissed. Consigned to a typing pool when she left school, she walked out, declaring that God did not intend her to bang on a typewriter for the rest of her life. In search of a modelling agency, a path that saw her face in *Vogue* as well as *Ebony* and *Jet*, she sent her photos all over New York, and did not care when her mother threw her out for it. Hired in a small way in the late 1950s for feature films and off-Broadway, she soon put her foot down. There were roles she approved of, and roles she would rather starve than take.

Those included all the parts, and they were few enough, customarily assigned to black actors. While the men were con-men, hustlers or drug addicts, the women were plump maids or prostitutes, Jezebels or Aunt Jemimas. Characters like these had no dimension, no complexities or professions or family life, as white characters did. They were cartoons, the insulting half-wit faces on tins of chewing tobacco or laundry bleach, when they should have been teachers and lawyers, doctors and politicians, mothers and fathers. They were never given their full, true humanity.

She especially longed to see black sisters portrayed as they really were: the strength of their race, the ones who held their families together when the men went off, for whatever reason. (She knew all about that, saving Miles Davis time after time when the jazzman broke up their relationship with the stench of his philandering and the horrors of his cocaine.) The role she treasured most came in "Sounder" in 1972, where she played the wife of a Louisiana sharecropper who, when her husband was imprisoned for stealing food, had to run the farm and raise the children alone. It won her a best-actress Oscar nomination. As Rebecca, wearing cornrows as she hoed the dry soil and pinned up washing, she thought of her own mother, her fierce mentor, who had also brought up her children largely single-handed. They were poor, moving from tenement to tenement in Harlem, but her mother always managed to whip up potatoes and salt pork for their meals, and to sew the wonderful organza dresses her daughters wore in church. From her she had inherited, as well as her "blessed assurance" of God's guidance, her stiff, straight back.

One day, however, she had seen her mother in a line of black women waiting to be hired as maids. White people in cars drove slowly past, looking them over. America's original sin of slavery seemed as sharp as ever. Even decades later racism still ran deep in the film and TV industries, despite the progress on the surface. In 1977 she appeared as the hero's mother in "Roots", a TV series that told the story of an African boy, Kunta Kinte, sold into slavery in the South. It made a huge splash for a time. But there were still few parts for black actors unless these were "written black", shoe-horned into some white cliché of what her people were. And they were still not considered automatically as leads, capable of carrying a film, or as actors of classic parts. She would have loved, herself, to play Ophelia. The role seemed closed to her. But where did anyone say Ophelia was white?

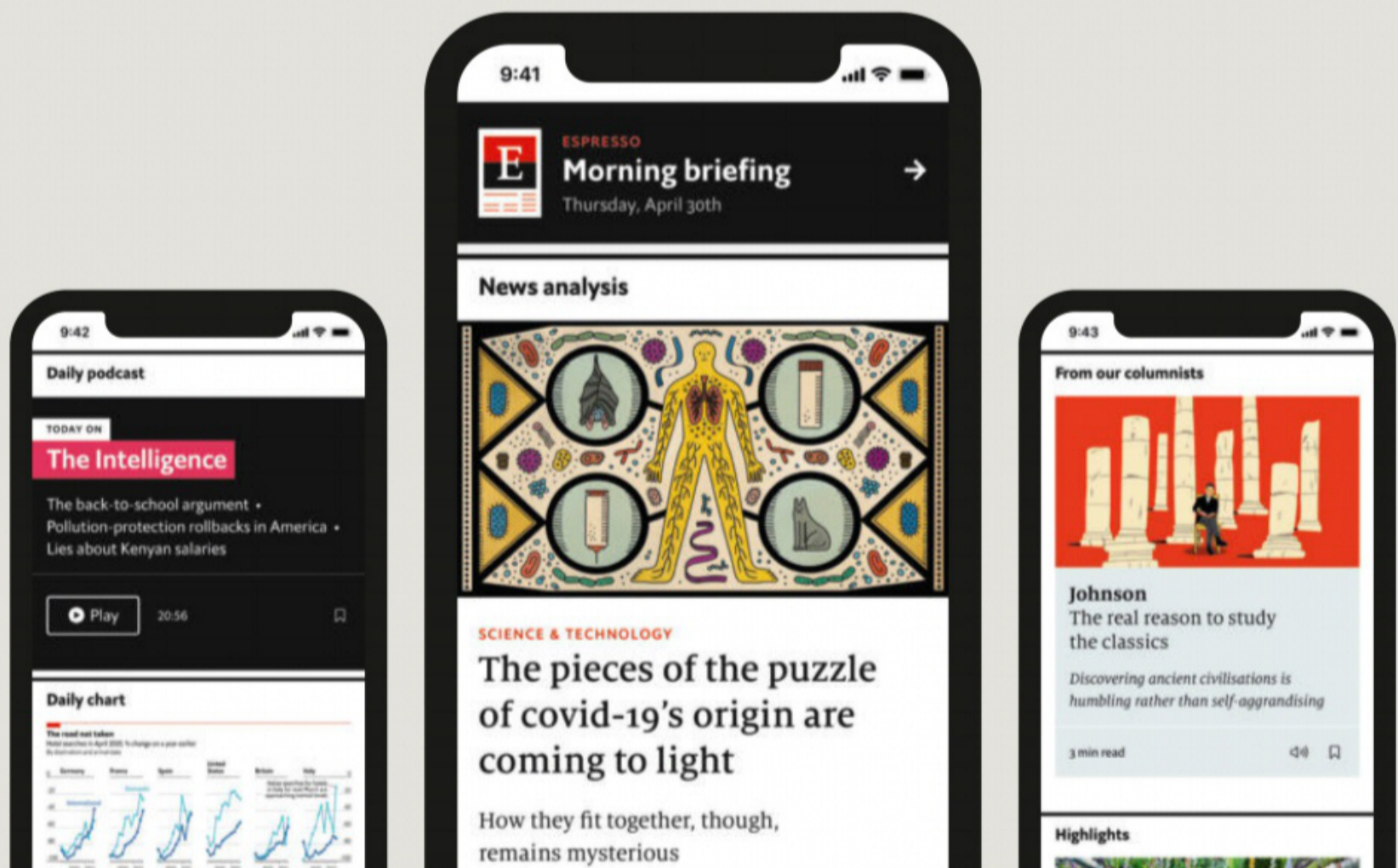
In 2013, fulfilling a long-standing dream, she played an originally white role, Mrs Carrie Watts, in "The Trip to Bountiful" on Broadway. It won her a Tony award. The story was of an old woman who insisted on seeing her childhood home before she died. As usual she steeped herself in the character, even going to "Mrs Carrie's" part of Texas to scratch up the earth and smell it. Being ancient herself now, it was not hard to get the moves right. And in any case, for all her care with nuances, her characters had one trait they shared. Whatever their age, they stood tall, squared their shoulders, pressed onward. They kept their chins high. ■



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