The Economist

The coronavirus's worrying mutations

Britain's place in the world

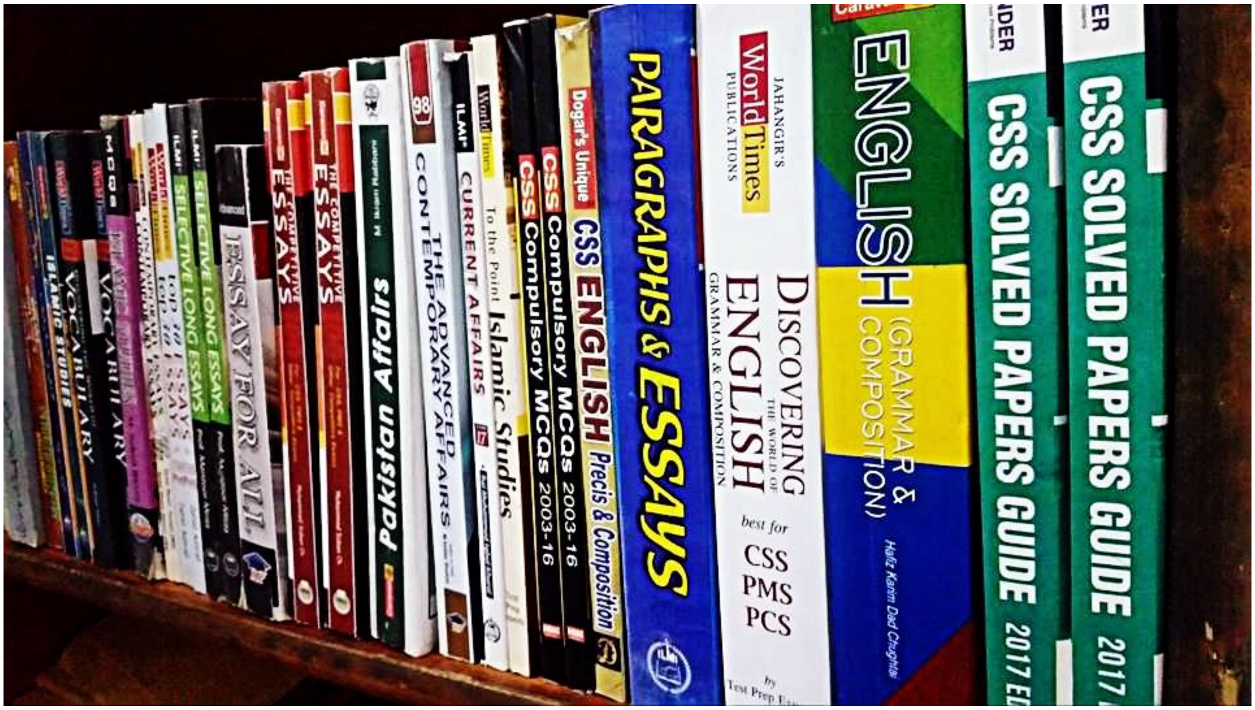
Infrastruggles: building back better

How prediction markets see 2021

JANUARY 2ND–8TH 2021

The future of e-commerce

(with Chinese characteristics)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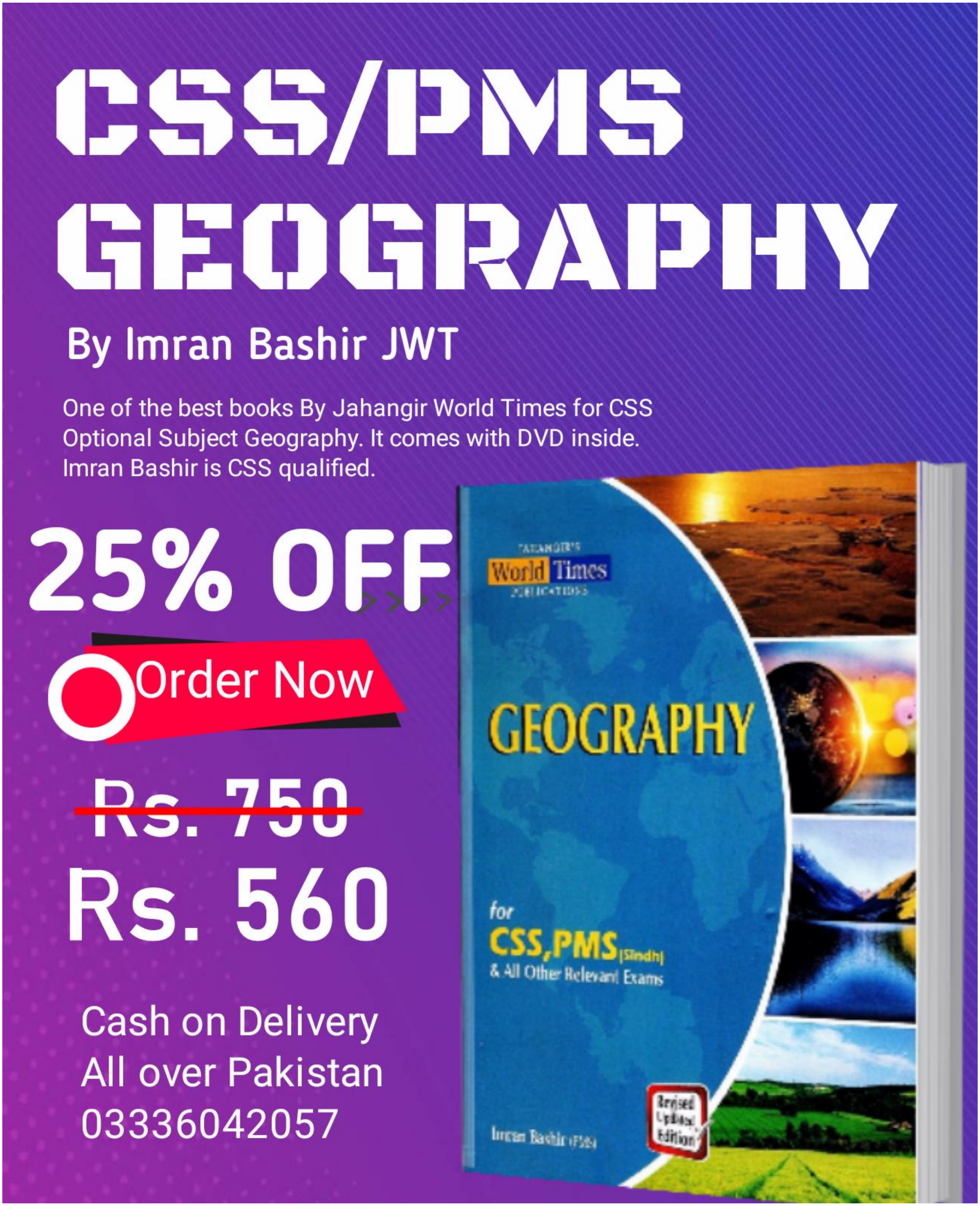
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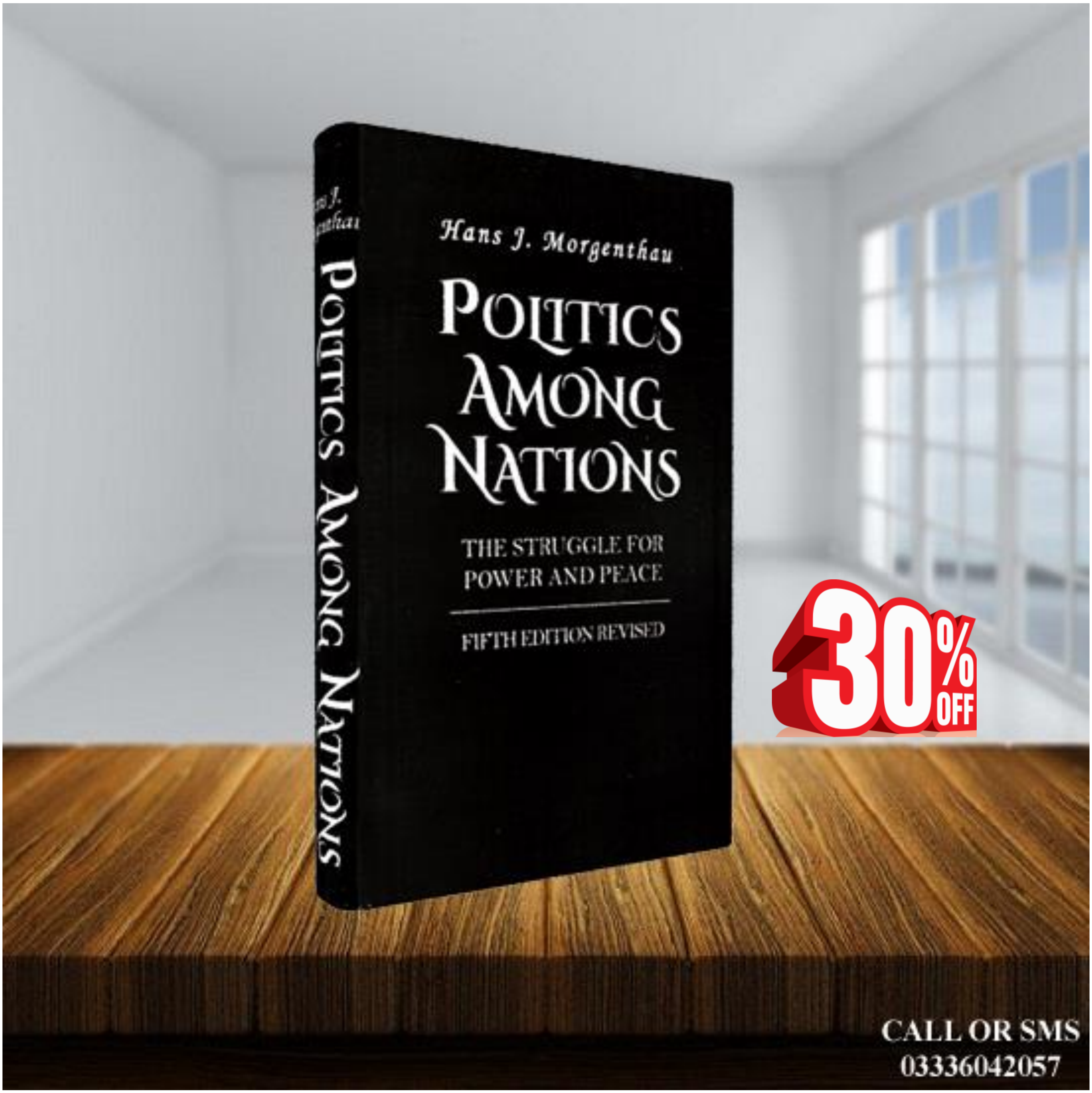

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Governments in **Britain** and across the **European Union** rushed to approve a post-Brexit trade agreement before December 31st, the date on which Britain's transition period ends. The deal, which was announced on Christmas Eve, covers goods, but says little about financial services. Some disruption for business is expected. The EU's member states back the pact, though the measures will come into force only provisionally until the European Parliament can give its blessing.

Scientists were worried by two new and more contagious variants of **covid-19** that are spreading around the world. Nearly all the countries in the EU began vaccinating citizens, a week after the European Medicines Agency approved the Pfizer-BioNTech vaccine. The Netherlands said it would not start until January 8th, claiming it wanted more time to implement its programme "carefully". Spain's health minister said a registry would be kept of people who refused to get vaccinated.

British regulators authorised a **vaccine** developed by Oxford University and AstraZeneca for use in the UK. It is the third available inoculation for covid-19 that has been fully tested and it can be rolled out quickly in bulk, notably to low- and middle-income countries.

State investigators in Russia laid more dubious fraud charges against **Alexei Navalny**, the country's leading opposition politician. This came after Mr Navalny posted a tape of his phone call with an agent of the FSB security police, whom he tricked into admitting that the FSB had tried to poison him with a nerve agent in August. Vladimir Putin said that if the police had wanted to poison Mr Navalny, he would be dead.

In a U-turn, Donald Trump signed a $900bn **stimulus bill** into law. He had threatened to veto the legislation because, he said, the $600-per-person it provides in direct payments is not enough. Mr Trump wants payments of $2,000, which the House of Representatives duly noted and approved in a supplementary bill; the Senate will now consider the measure.

The Department of Justice filed a lawsuit against **Walmart** for an alleged lack of oversight in fulfilling prescriptions for opioids, which it says helped fuel the opioid crisis. In a strongly worded rebuttal, the retailer said the suit was riddled with factual mistakes and "cherry-picked documents" that were trying to shift blame away from the Drug Enforcement Administration.

Argentina became the first big Latin American country to legalise **abortion**, after a crucial vote in the Senate drew more support than had been expected. Women will now be able to get an abortion for any reason up to 14 weeks into a pregnancy.

A court in Shanghai sentenced Zhang Zhan, a former lawyer, to four years in prison for "picking quarrels and causing trouble". She had reported on the outbreak of covid-19 in **China** in ways that embarrassed the Communist Party. Meanwhile, a study from the Chinese Centre for Disease Control and Prevention, an independent agency, suggested that the number of people infected by covid-19 in **Wuhan** may have been ten times higher than officially reported.

Ten people from **Hong Kong** were sentenced to up to three years in prison by a mainland Chinese court on charges relating to their attempt to flee from the territory by boat after the imposition of a draconian national-security law. Two others, both under 18, were sent back to Hong Kong.

China's financial regulators piled the pressure on **Jack Ma**, ordering his Ant Group to "rectify" its sprawling financial-services empire and go back to being a simple payments provider. This came after the government announced an antitrust probe into Alibaba, also founded by Mr Ma and affiliated with Ant.

Bangladesh moved a second group of Rohingya Muslim refugees from the mainland to the island of Bhasan Char. There are now more than 3,000 refugees on the remote island.

Turkey's central bank lifted its main interest rate by two percentage points, to 17%. The bank has a new governor, who must grapple with inflation, a weak lira, and Recep Tayyip Erdogan, Turkey's president, a vocal opponent of conventional monetary policy.

An election in the **Central African Republic** was marred by turmoil. Violence forced 14% of polling stations to close. Armed groups threatened to march on the capital, Bangui.

Loujain al-Hathloul, a **Saudi** activist, was sentenced to more than five years in prison, supposedly for trying to harm national security. Ms Hathloul had campaigned for women to be allowed to drive cars. She was detained in 2018, shortly before the ban on female drivers was, in fact, lifted.

Israel's parliament failed to pass a budget and was dissolved, triggering an election on March 23rd, the fourth in two years. Binyamin Netanyahu, the prime minister, faces a challenge from several former allies. Meanwhile, Israel became the first country to enter a third nationwide **lockdown** because of covid-19. But it has already vaccinated 6% of its population, well ahead of most countries. Mr Netanyahu is hoping a successful vaccination drive will give his campaign a shot in the arm.

The future of global e-commerce

Retailers everywhere should look to China

OVER THE past ten months most people in the rich world have participated in the biggest shopping revolution in the West since malls and supermarkets conquered suburbia 50 years ago. The pandemic has led to a surge in online spending, speeding up the shift from physical stores by half a decade or so. Forget the chimney; Christmas gifts in 2020 came flying through the letterbox or were dumped on the doorstep. Workers at a handful of firms, including Amazon and Walmart, have made superhuman efforts to fulfil online orders, and their investors have made supernormal profits as Wall Street has bid up their shares on euphoria that Western retailing is at the cutting edge.

Yet as we explain this week (see Business section) it is in China, not the West, where the future of e-commerce is being staked out. Its market is far bigger and more creative, with tech firms blending e-commerce, social media and razzmatazz to become online-shopping emporia for 850m digital consumers. And China is also at the frontier of regulation, with the news on December 24th that trustbusters were investigating Alibaba, co-founded by Jack Ma, China's most celebrated tycoon, and until a few weeks ago its most valuable listed firm. For a century the world's consumer businesses have looked to America to spot new trends, from scannable barcodes on Wrigley's gum in the 1970s to keeping up with the Kardashians' consumption habits in the 2010s. Now they should be looking to the East.

China's lead in e-commerce is not entirely new. By size, its market overtook America's in 2013—with little physical store space, its consumers and retailers leapfrogged ahead to the digital world. When Alibaba listed in 2014 it was the world's largest-ever initial public offering. Today the country's e-retailing market is worth $2trn, more than America's and Europe's combined. But beyond its sheer size it now stands out from the past, and from the industry in the West, in several crucial ways.

For a start it is more dynamic. In the past few years new competitors, including Meituan and Pinduoduo, have come of age with effervescent business models. One sign of fierce competition is that Alibaba's share of the market capitalisation of the Chinese e-commerce industry has dropped from 81% when it listed to 55% today. Competition has also led e-commerce and other tech firms to demolish the boundaries between different types of services that are still common in the West. Point and click are passé: online-shopping platforms in China now blend digital payments, group deals, social media, gaming, instant messaging, short-form videos and live-streaming celebrities.

The obvious, multi-trillion-dollar question is whether the Chinese model of e-commerce will go global. As has been the case for decades, Silicon Valley's giants still tend to underestimate China. There are few direct links between the American and Chinese e-commerce industries, partly owing to protectionism on both sides (Yahoo sold much of its stake in Alibaba, far too early, in 2012). And Western firms have long been organised in cosy, predictable silos. So Visa specialises in payments, Amazon in e-commerce, Facebook in social media, Google in search, and so on. The main source of uncertainty in e-commerce has been just how many big traditional retailers will go bust—over 30 folded in America in 2020—and whether a few might manage the shift online, as Walmart and Target have.

Yet however safe and siloed Western e-retailing may appear to be, it is now unlikely that it will become the world's dominant mode of shopping. Already, outside rich countries, the Chinese approach is gaining steam. Many leading e-commerce firms in South-East Asia (Grab and Sea), India (Jio), and Latin America (Mercado Libre) are influenced by the Chinese strategy of offering a "super-app" with a cornucopia of services from noodle delivery to financial services. The giant consumer-goods firms that straddle the Western and Chinese markets may transmit Chinese ideas and business tactics, too. Multinationals such as Unilever, L'Oréal and Adidas make more revenue in Asia than in America and their bosses turn to there, not to California or Paris, to see the latest in digital marketing, branding and logistics.

Already, Chinese characteristics are emerging in the retail heartlands of the West, partly as a result of the pandemic. The silos are breaking down as firms diversify. Facebook is now promoting shopping services on its social networks, and engaging in "social commerce", including in live-streaming and the use of WhatsApp, for messaging between merchants and shoppers. In December Walmart hosted its first live shopping event within TikTok, a Chinese-owned video app in which it hopes to buy a stake. In France in the past quarter the sixth-most-downloaded e-commerce app was Vova, linked to Pinduoduo's founder. And new entrants may finally make progress in America—the share price of Shopify, a platform for Amazon exiles and small firms, has soared so that it is now valued at more than $140bn.

This shift to a more Chinese-style global industry promises to be excellent news for consumers. Prices would be lower, as China has seen fierce discounting by competing firms. Choice and innovation would probably grow. Even so, Chinese e-commerce has flaws. In a Wild West climate, fraud is more common. And there are those antitrust concerns. It is tempting to see the crackdown on Mr Ma as just another display of brutal Communist Party power (see Free exchange). It may partly be that, but China's antitrust regulators are also keen to boost competition. That means enforcing interoperability, so that, for example, payments services on one e-commerce platform can be used seamlessly on a rival one. And it means preventing e-commerce firms from penalising merchants who sell goods in more than one place online. So far American and European trustbusters have been ineffectual at controlling big tech, despite a flurry of lawsuits and draft laws at the end of 2020. They, too, should study China, for a sense of where the industry is heading and how to respond.

There is a pattern to how the West thinks about Chinese innovation. From electronics to solar panels, Chinese manufacturing advances were either ignored or dismissed as copying, then downplayed and then grudgingly acknowledged around the world. Now it is the Chinese consumer's tastes and habits that are going global. Watch and learn. ■

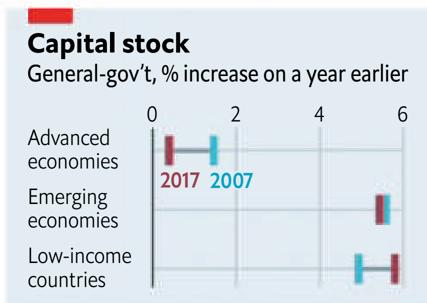
Investing in infrastructure

Infrastruggles

Every country wants to build more bridges, roads and renewable-power grids. It won't be easy

In 1916 Cincinnati decided to construct a magnificent new subway system. After decades of cock-ups it was abandoned in 1948, and today there are two miles of tunnels beneath the city that have never been used. That cautionary tale is still relevant. Politicians everywhere are calling for more infrastructure spending (see Finance section). Yet few industries have a worse record of coming through on time and on budget. If the incipient boom is to produce better results, governments and firms must learn to adopt best practice from around the world.

Most countries have enacted short-term stimulus plans to deal with the pandemic. On December 27th President Donald Trump signed a $900bn spending bill (see United States section). But there is also appetite to binge on infrastructure. Joe Biden wants to spend $2trn on roads, power grids and railways, and hopes to win bipartisan support for his plans. The European Union has just approved a €1.8trn ($2.2trn) budget, a slug of which is for digital and energy investments.



The new infrastructure infatuation is understandable. Public and private investment has stagnated at 3-4% of GDP worldwide. That is too little to maintain ageing assets in developed countries—a third of American bridges are creaky—or to provide enough clean water and electricity in the emerging world. Low interest rates mean financing is cheap, and many economists think that the payback from infrastructure is attractive. Meanwhile, climate change and the digitisation of the economy are creating vast demand for renewable-energy systems and connectivity, including 5G networks.

In practice, however, infrastructure's record is as potholed as a Mumbai motorway. Cost-overruns often exceed 25%. Two-thirds of foreign bribery cases involve infrastructure deals. China spends more than anyone else, but perhaps half of its investments have destroyed economic value. India had a boom in the 2000s which ended in a mire of debt. Even Germany struggles to get it right. All this reflects some deep underlying problems. Most projects have a time horizon beyond that of politicians and voters. Often they are one of a kind: China has just Three Gorges to dam, not six. And the full economic benefits created by a road, say, are not captured by the organisation paying for it.

Yet bitter experience does at least suggest two universal lessons. First, governments should select projects systematically by creating a single list and picking those with the highest payback. This assessment should factor in externalities, including the impact on carbon emissions, and delays, which are a big source of cost overruns. And it should be carried out by bodies that are independent from those that build and run assets. Often the projects selected will not be the glittering new temples that politicians like their names on, but humble repairs and maintenance.

The second lesson is to harness the private sector. Not only is it a source of capital—global infrastructure funds have over $200bn waiting to be deployed—but projects with private investors also tend to be managed better. That means developing standardised contracts and independent regulators that protect taxpayers but also give investors reasonable certainty of an adequate return.

Both lessons might seem obvious. A few places, such as Chile and Norway, get infrastructure right. But over half of the countries surveyed by the IMF do not maintain a national pipeline of projects. And in most the record is staggeringly erratic. America is splurging on 5G (see Business section) but has squalid airports and too little renewable energy. Europe has shiny airports and wind farms but is in the stone age on 5G. Infrastructure is one of the last local industries left where easy gains are still to be had by copying others around the world. If you benchmark public investment in over 100 countries, adopting best practice could make spending 33% more efficient. The prize is huge. Just don't expect a subway in Cincinnati. ■

Covid-19

The tunnel gets darker

Mutations are making the covid-19 virus more infectious

The winter solstice may have passed, but in the land of covid-19 the nights are still growing longer. In recent weeks two variants of the coronavirus have spread with ferocious speed in Britain and South Africa. They have mutations that make them a lot more contagious. Although, so far, they do not seem to be any deadlier, for every ten people that older variants would infect in Britain the new one infects 15. Early data suggest that the South African variant burns just as fiercely.

Just now the world is rightly focused on approving, making and administering vaccines. Alas, it also needs to face up to the fact that before jabs come to the rescue, the new variants will spread, creating deep difficulties for policymakers.

Evolutionary biologists have shrugged at the appearance of the mutations: this is how viruses behave, for natural selection favours variants that are more transmissible and less deadly (see Science section). Some viruses that cause common colds may have started out as vicious as SARS-CoV-2 and moderated in their old age. Policymakers cannot afford to be so relaxed. A more transmissible covid-19 virus that is just as dangerous, as this variant is, means that hospitals may be overwhelmed. In England the majority of the population has been in near-full lockdown for weeks. Yet covid-19 patients at hospitals have now exceeded ▸▸

the peak in April and the health service is struggling to cope.

Much of the rest of the world, including Europe and America, will soon follow. More than 50 countries rushed to ban travellers from Britain as soon as its scientists told the world about the new variant, in mid-December. Many have also banned arrivals from South Africa. But such measures are likely to buy only a little time. In early November, before travel bans, the British variant already accounted for nearly 30% of cases in London, one of the world's most connected cities. Given how early variants spread from ski resorts in the Alps last winter and from Spain in the summer, it is naive to believe that cases are not already seeded all over Europe and beyond. Once it arrives, the new British variant is likely to displace local strains within a few weeks.

So far, only sporadic cases of it have been found in 20 or so countries, including in America in a man who had not travelled. But that is because, unlike Britain and South Africa, most do little genomic sequencing to look for mutations. France has examined the virus fewer times in the entire pandemic than Wales does in a week. Most countries do not look at all. Other more contagious variants may thus be spreading undetected.

The good news is that these mutations are unlikely to reinfect people who have had the disease or to evade today's covid-19 vaccines. Natural selection will, eventually, begin to change that, as more and more people are inoculated, but vaccines can be tweaked to remain effective. With the Pfizer-BioNTech vaccine, the process takes just six weeks.

Between now and then

However, even in the mostly rich countries that have hoarded vaccine supplies there will not be enough to stop the virus from spreading, at least until summer. This week's emergency approval of the AstraZeneca-Oxford jab will help (see Britain section), but there will still be delays. Poorer and middle-income countries will remain less well protected for a lot longer.

Countries in Europe and beyond will be forced to deal with this fast-changing reality by reassessing the trade-offs between the benefits from the harsh lockdowns needed to stop a more contagious virus and their long-term costs to schooling, health and livelihoods. There is still light at the end of the tunnel. But the road through it has become a lot more treacherous. ■

Digital government

Online onslaught

Few reforms would benefit Japan as much as putting government services online

It is a ritual almost as frequent and as fleeting as observing the cherry blossoms each year. A new Japanese government pledges to move more public services online. Almost as soon as the promise is made, it falls to the ground like a sad pink petal. In 2001 the government announced it would digitise all its procedures by 2003—yet almost 20 years later, just 7.5% of all administrative procedures can be completed online (see Asia section). Only 7.3% of Japanese applied for any sort of government service online, well behind not only South Korea and Iceland, but also Mexico and Slovakia. Japan is an e-government failure.

That is a great pity, and not just for hapless Japanese citizens wandering from window to window in bewildering government offices. Japan's population is shrinking and ageing. With its workforce atrophying, Japan relies even more than other economies on gains in productivity to maintain prosperity. The Daiwa Institute of Research, a think-tank in Tokyo, reckons that putting government online could permanently boost GDP per person by 1%. The failure to do so is a missed opportunity.

The lapse is all the more remarkable given Japan's wealth and technological sophistication. Indeed, that seems to be part of the problem. Over the years big local technology firms have vied for plum contracts to develop IT systems for different, fiercely autonomous, government departments. Most ended up designing bespoke software for each job. The result is a profusion of incompatible systems.

Happily, the government of Suga Yoshihide, who became prime minister in September 2020, seems to be making more than the typical ritual stab at resolving the problem. It is creating a new government agency intended to drag the old ones into the digital world. This new office will be in charge of procurement of IT systems for the government as a whole, giving it real clout. It will be headed by a tech executive, not a bureaucrat.

As a laggard in the rich world in the adoption of digital public services, Japan does at least have the advantage of being able to learn from the experience of other countries. It could look to Estonia for advice on imposing data standards across government departments. Estonia also operates a model digital-ID system (Japan's is used by less than 20% of the population, and the pandemic has highlighted its shortcomings). It could follow South Korea's example in making more of its public data, processes and services "open by default", and being transparent about its use of data when devising policies and designing services. And to boost take-up it could learn from Denmark, where applications for 95% of state pensions and 100% of maternity benefits are now handled digitally.

These successes were achieved in part by pressing ahead despite the predictable misgivings of hidebound bureaucrats and technonervous pensioners. Japan has tended in the past to placate such people by building parallel digital systems and making use of them voluntary. It will have to get tougher with its citizens and civil servants as well as its IT contractors if take-up of digital services is to increase. In fact, officials may find that if they make digital government work more smoothly, much of the resistance to it melts away, as the advantages and cost savings arising from doing paperwork online become more obvious.

The potential gains in productivity, if Japan's administrators get their act together, would be enormous. The older the population becomes, the greater the benefit, to them and to the government, of doing away with queues and forms. The savings of time, money and effort will only grow. And unlike the transient beauty of the cherry blossom, the blessings of more efficient government would be lasting. ■

Foreign policy after Brexit

Britain's place in the world

"Global Britain" is a fine idea, but it requires hard choices and re-engagement with Europe

THE TRANSITION is over and Britain is fully out of the European Union. On December 24th the sides agreed on a trade deal. It spares them the even greater upheaval of no deal at all (see Britain section). It is minimal, though, along the lines first signalled months ago. It largely overlooks services and marks the start of endless haggling. And, on British insistence, foreign policy and defence are ignored. Looking across the seas with an estranged continent at its back, a lonesome Britain thus faces a bracing question: what role should it now play in the world?

It is a question the country has grappled with off and on for centuries, and in recent decades British thinking has often been clouded by nostalgia for lost empire and great-power status. Membership of the European club provided an answer of sorts. Britain, as Tony Blair put it, could be a "bridge" between America and Europe, with influence in both Washington and Brussels. Now it must think afresh.

One possibility would be for Britons to accept their country's diminished status and focus on things at home—becoming a big Denmark, a decent north European place without great-power pretensions. Sure enough, in September 38% of Britons told Ipsos-MORI's pollsters that Britain should "stop pretending it is an important power in the world"; only 28% disagreed. Yet Britons should not take the benefits of influence for granted. It is to their advantage to try to sway the world in ways that suit British interests, whether on trade, climate change or democracy (including, like Denmark, through the power of example).

The Conservative government talks of "Global Britain", suggesting ambitions far beyond Europe. Yet more than four years after the referendum the idea is still little more than a slogan. Witness the lack of urgency over an "Integrated Review" of foreign policy, security, defence and development due to report in autumn 2020. It is now expected early in 2021.

That is a pity. As our Briefing explains, Global Britain has a lot going for it. Membership of NATO, the G7, the G20, the Commonwealth, a permanent seat on the UN Security Council—all bring influence. Britain has nuclear weapons and a capable army (after America, it expects to be the biggest defence spender in NATO). It also has an abundance of soft power, for example through its hefty spending on foreign aid and through its able scientists, prominent in developing vaccines and identifying treatments for covid-19. In 2021 Britain is chairing the G7 and hosting the COP26 summit on climate change, both opportunities to shine.

Outside the EU, Britain can also be a nimbler power. It is able to move more boldly than the consensus-bound 27 member states on, say, sanctions on despotic Belarus, or more swiftly on approving a vaccine against covid-19. It has defied sceptics by rolling over trade deals with countries from Japan to Turkey. It can use its convening power for good causes, such as raising nearly $9bn for Gavi, the global vaccine alliance. It can work with groups of like-minded countries to press interests—teaming up with Canada to promote media freedom and inviting Australia, India and South Korea to the G7 summit to underline democracy. Without the endless rounds of Euro-meetings, Britain's ministers and diplomats will have more time for action beyond Europe, including a "tilt to the Indo-Pacific", a region with growing importance for everything from trade to security.

However, if Global Britain is to live up to these aspirations Boris Johnson and his successors will have to face up to some daunting problems. Over time, Britain's sway in the world will depend on its success at home—much as the perceived prowess of Thatcherism and Blairism helped Britain "punch above its weight". That has just become harder, and not only because Britain's management of covid-19 has harmed its reputation. One reason is economic: Britain's recent performance has been poor and Brexit will be a further drag on growth. Another is political: dismay at Brexit is prompting renewed calls for Scottish independence and a united Ireland. Britain will not be taken seriously abroad if it is falling apart at home.

Britain also needs to develop the political culture to make hard choices and stand by them. These arise because it has to withstand the temptation of trying to do too much. It is easy to draw up a long to-do list, far trickier to decide what not to do.

The danger of overstretch is clear. Sending an aircraft-carrier to Asia may look like an impressive projection of power, but it makes little sense when the likely threats to Britain are closer to home. France does a better job of concentrating its diplomatic resources where it can have the most impact, such as the Sahel. The Foreign Office, newly merged with the Department for International Development, could reallocate some of its combined firepower to make sure it is better represented on the ground where it counts. The team for COP26, supposedly a priority, looks puny next to the heavyweight power France deployed in the run-up to the Paris agreement at COP21 or that the incoming Biden administration is already assembling.

Some signs suggest the government can make tough calls. An example is its painful recent decision to cut foreign aid from 0.7% of GDP to 0.5%. Another is the planned boost to defence spending, with a focus on strengthening areas—cyber-capabilities and naval power—with global relevance. On China, the argument between those who stress investment and those who prioritise security and Britain's relationship with America is going the way of the Sinosceptics, judging by a hardening rhetoric on defence, the decision to ban Huawei, a Chinese telecoms giant, from Britain's 5G networks, as well as a robust response to China's crackdown in Hong Kong. That makes sense, too.

That Europe question—again

The glaring gap is Europe. Theresa May, a former prime minister, wanted an "ambitious partnership" with the EU on foreign and security policy. Mr Johnson prefers to work ad hoc through NATO, bilateral ties and the "E3" with France and Germany—all very well, but limited. History suggests that Britain will eventually be pulled back towards Europe. Shared interests and the need to pool resources argue for a partnership. Strange as it may seem to Brexiteers, the sooner the ex-EU member gets over its blindness over Europe, the better the prospects for Global Britain. ■

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The OECD is looking for a visionary and innovative Director, with proven experience in working with and in developing countries as well as with a sound knowledge of the Development Centre's areas of work. As a key member of the Organisation's Senior Management team, s/he will provide strategic management and orientation and will advance the Centre's work programme. S/he will support the Governing Board of the Centre (GB) to carry out its mandate to help its members in sharing their experience of economic and social development policies and to help decision makers find policy solutions to improve living conditions in developing and emerging economies.

The ideal candidate will provide intellectual leadership and will demonstrate innovative strategic thinking, strong communication skills and a track record of managing international teams.

This position requires fluency in one of the two OECD official languages (English and French) and a good working knowledge of, or willingness to learn, the other.

Full details of the position are available at **www.oecd.org/careers/vacancies** (ref. 14028). Applications from OECD or DEV member country nationals should be submitted online by **cob 17 January 2021.**

ALSF
African Legal Support Facility • Facilité africaine de soutien juridique

The African Legal Support Facility

Director/CEO

The Management Board of the African Legal Support Facility (ALSF) intends to appoint a new Director and CEO in view of the imminent completion by the current Director of the statutory terms as provided under the ALSF Treaty. The new Director will build on the considerable achievements of ALSF to date and champion its ambition to remove asymmetric technical capacities and level the field of legal expertise among parties to litigation and negotiations.

ALSF is an international organization established by Treaty on December 22, 2008. Its membership is open to (a) all African Development Bank (AfDB) member states; (b) other states; (c) AfDB; and (d) other international organizations or institutions. The Facility currently has 60 members, comprising 53 countries and 7 international organizations. ALSF's main objectives include: (i) assisting AfDB's Regional Member Countries (RMCs) to address litigation brought against them by vulture funds (and other such entities); (ii) creating an avenue for AfDB's RMCs to access technical advice when negotiating complex commercial transactions (especially in the area of infrastructure and natural resources); and (iii) investing in and organizing the training of legal counsel from RMCs to equip them with the legal expertise necessary to better represent their countries. The ALSF also develops and proposes innovative tools for capacity building and knowledge management.

Since its inception in 2010, the Facility has supported African governments in negotiations of commercial agreements of a cumulative value of over US $60 billion and more than 8,000MW of energy projects. Currently it is assisting African States on more than 110 projects, with over 70% of the projects related to advisory services for either direct assistance in contract negotiation or the building of legal foundations needed to properly negotiate contracts.

The Director will require proven leadership and management skills, as well as experience in high level resource mobilization and fund raising amongst governments, supranational organizations, bilateral and multilateral bodies, amongst others. The ideal candidate will bring a demonstrated track record of extensive and progressive experience in international commercial law.

ALSF has retained Russell Reynolds Associates to assist with this appointment. For further information on the position and additional details on qualifications, requirements, terms and conditions of service and how to apply, please visit: **www.rraresponses.com**

The closing date for applications is 22nd February 2021.

The African Legal Support Facility is an equal opportunity employer and female candidates are strongly encouraged to apply.

Russell Reynolds
ASSOCIATES

The tale of Eastern Airlines

Bartleby summarised a new book by David Bodanis on fairness in business (December 12th). The column narrated the story of Eastern Airlines by describing it as a corporation built by Eddie Rickenbacker, "who had granted mechanics a 40-hour week, profit-related pay and a pension", but "when Frank Lorenzo took over the company in the 1980s, he cut wages, alienated the staff and pursued a policy of asset-stripping the company. The workers went on strike in protest and Eastern went bankrupt."

However, Rickenbacker operated during a lush golden era of air travel. The government regulated air fares, and kept them high. Competition was genteel. Then along came the Deregulation Act of 1978, a sea change in the airline industry. New discount airlines sprouted up and airlines added flights to Eastern's tourist-oriented routes to Florida. Ticket prices plummeted. Yet the unions refused to recognise these new financial realities. By 1986 Eastern Airlines was on the brink of bankruptcy. That's when Frank Borman, a former astronaut and Eastern's chief executive, asked me about a sale to my airline group. He told me he'd decided to sell to us because "the unions wouldn't make the necessary changes." When we took over, we thought the unions would understand that change had to come, but they continued to fight. In 1989, needing cash to continue operations, we sold the Eastern Shuttle to Donald Trump for $365m. That reality didn't soften union intransigence; they fought on, so the airline sadly ended up being liquidated with tens of thousands of jobs lost.

Fairness is certainly a worthy subject of a business book. But Mr Bodanis has misunderstood our Eastern acquisition. It might have been better if he had mentioned our take on fairness. Our group was the first to eliminate cigar and pipe smoking, the first airline to provide stock incentive programmes to employees, and so on.

FRANK LORENZO
Former chairman of Eastern Airlines and former CEO of Continental Airlines
New York

Sizing households

It is not true that people in the western world only started to live in nuclear families after industrialisation ("Nuclear retreat", December 5th). That is a popular historical myth. In western Europe, the average household size was fairly small long before the Industrial Revolution, below five people since the 16th century, if not earlier. In England rural families tended to be nuclear or only slightly extended. They certainly were not the big groups to which your article alludes. In Bulgaria, a country I studied in detail, the average household size was larger in the 1980s than in the 19th century, for the simple reason that the communist regime could not provide enough housing. Bulgarian peasants in the 19th century lived on small, individual farms, which were divided up once their sons married.

ULF BRUNNBAUER
Professor of south-east and east European history
University of Regensburg
Regensburg, Germany

A role for coal

After almost 18 months as chief executive of the World Coal Association, it does not surprise me to see negative headlines dismissing coal ("Make coal history", December 5th). I was alerted to your story as I was giving a speech to the Indian government and industrialist stakeholders at a forum which reinforced that coal will continue to be significant in India's energy mix; we discussed the preparations that will need to happen for its responsible usage. Similar themes were heard at meetings with ministers in South-East Asia. In fact, these sort of headlines are often disregarded by the coal-growth regions because dismissing coal is dismissing the right of developing and emerging economies to choose their own energy source to support development.

There is not one government minister or adviser in the key coal markets whom I have spoken to who wants to make the same mistakes as developed economies. Equally, they do not wish to promote an uneconomical and unsustainable vision that is not realistic. That is why so many countries continue to use coal, which is still forecast to be the single biggest source of electricity in 2040. Since 2010, 40 countries that have not used coal for power in the past have added coal to their energy portfolios.

Although *The Economist* was dismissive of the role that can be played by clean-coal technologies, the emissions reduction potential is significant. Many countries have included a role for coal and clean-coal technologies in their Paris agreement pledges. Globally, the average efficiency of coal-fuelled power plants is 37.5%. If this was raised to 47.5%, which is possible with today's technology, this would reduce global emissions by two gigatonnes, equivalent to eliminating the ASEAN region's 2017 carbon emissions from all fossil fuels. Carbon capture, use and storage is also vital to our climate efforts.

MICHELLE MANOOK
Chief executive
World Coal Association
London

Until recently, Chile produced around 40% of its electricity from burning coal. But the country is now a star in energy transition because of new renewables like wind and solar. We are committed to carbon neutrality by 2050. The guiding principles for this change have been the openness of our economy to foreign investment, free trade, intense competition in our generation market, sound public policy and a long-term commitment to sustainable economic growth. There are no public subsidies for renewables, but we are endowed with lots of sunshine in Atacama, winds from the Pacific and water from the Andes.

We hope that the share of renewables in electricity will rise from 45% to above 85% by 2030. The climate emergency gives us little time. The scope and speed needed for this energy transformation is enormous. Chile's path of a private-sector market-based approach to energy transition is an example for other countries to follow in order to make coal history.

CLAUDIO SEEBACH
Executive chairman
Chilean Electric Power Association
Santiago

Enough to drive you mad

Repairing potholes does not necessarily bring unalloyed joy to Britain's motorists ("Revolutionary roads", November 28th). Roadworks are announced with the least welcome phrase in the English language: "Three-Way Traffic Control". Temporary traffic lights are equipped with cameras and technology capable of issuing fines with relentless efficiency to any driver foolish enough to disobey them. The repairs cause even more congestion. The Kafkaesque inefficiency of remedial work is painful enough. However, policing it with great precision and careful logistics suggests a muddling of priorities.

MAURICE MILLEN
London

Million dollar bash

I liked your homage ballad to Bob Dylan ("Knock-knock-knockin' on Jody's door", December 12th). Even during these uncertain times Mr Dylan's words ring true: "Money doesn't talk, it swears".

RAJ KUMAR
Pleasanton, California

Letters are welcome and should be addressed to the Editor at
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More letters are available at:
Economist.com/letters

Amazing journey?

Outside the European Union Britain must find the right balance between ambition and realism. That calls for a clear strategy

"GOT A FEELING '21 is going to be a good year," the stepfather in "Tommy", a rock opera by The Who, tells his family. The British government is trying to give a similar impression of optimism. After its year of post-Brexit transition, and with a last-minute trade deal that staves off some of the worst effects of leaving the European Union, the new year offers the country a number of opportunities to cut a dash on the world stage. It will take the presidency of the G7 club of big rich democracies, allowing it not just to set the agenda for the group's annual summit, but also to invite Australia, India and South Korea to come along—an invitation that might be the groundwork for a "D10" of democracies. In November the most important diplomatic event of the year, the COP26 climate conference, will open in Glasgow.

Within weeks Boris Johnson, Britain's prime minister, will be visiting India, where on January 26th he will be Prime Minister Narendra Modi's guest of honour for Republic Day. His visit will be part of a much-touted "tilt to the Indo-Pacific". Britain has opened discussions on joining the Comprehensive and Progressive Agreement for Trans-Pacific Partnership, a free-trade area of 11 countries. The foreign secretary, Dominic Raab, is pushing for it also to become a "dialogue partner" of the Association of South-East Asian Nations. The Royal Navy's flagship, the spanking new aircraft-carrier *HMS Queen Elizabeth*, will soon be Asia bound.

Freed from an endless round of EU gatherings, British diplomats expect to have more time for globe trotting. Alexander Downer, a former Australian foreign minister, has pointed out that there was a period of 17 years when no British foreign secretary visited Australia; such slights are unlikely to be repeated. Over the year since Brexit various nimble moves—from offering people in Hong Kong a path to British citizenship after China's crackdown there, to sanctions on Belarus while the rest of Europe dithered, to rapid approval for a covid vaccine—have shown that Britain can stand out. "It's exciting to see the British government making creative choices in its national security," says Kori Schake of the American Enterprise Institute, an American think-tank. "That's a really important way to signal that Britain outside of the EU sees itself as a leader in national security and is willing to take the risks and the consequences of leading with its values."

For all these tokens of real potential, though, there are serious impediments to the creation, or recreation, of a "Global Britain"—a project with which many of those who brought about Brexit are enamoured. Through leaving the EU the country weakened its economic prospects; since then covid has hit it hard. The economy has longer-term problems, too. Since 2005 British firms' share of world market capitalisation has fallen from over 7% to 3%, a much greater slippage than any other large European economy. Over the same period the share of the stock of global cross-border investment attributable to British-headquartered multinationals has fallen from 10% to 6%, also a bigger drop than for any other major economy.

At the same time the world is returning to an era of great-power competition: deepening rivalry between America and China, Russia's brazen opportunism, the EU's stubborn assertiveness, at least in economic policy. "The next chapter of world affairs will be about the political, economic, regulatory, technological and military interplay between the US, China and Europe," says Sir Simon Fraser, one of Britain's former top diplomats. "The task for the UK is finding our place in this."

To do so will require a clear strategic vision and coherent implementation. Yet these are just the things which, according to a recent report by the House of Commons Foreign Affairs Committee, British foreign policy currently lacks. Unless Britain applies itself to acquiring those necessities, good years will prove hard to find.

No reason to be over-optimistic

It is easy to dismiss Britain's strengths, and many of its inhabitants delight in doing so. But though Britain is no longer the leading power it was in the first half of the 20th century (see chart) it is still a manifestly significant one. It has the world's fifth-largest economy, according to the IMF, and is one of the five nuclear-armed states with a permanent seat on the UN Security Council. It is a muscular member of NATO and its signals-intelligence service, GCHQ, makes it a potent part of the "Five Eyes" intelligence-sharing elite, together with America, Canada, Australia and New Zealand.

Its imperial past has left it one of the few countries to have a number of overseas territories, which extend its presence while also adding to its obligations. Its head of state is the head of state of 15 other countries, too, as well as leader of the 54-nation Commonwealth. The Anglican Communion is the world's third-largest Christian church. Britain is rare among rich countries in spending a hefty chunk of its national income on foreign aid and doing so well. It is the biggest voluntary contributor to the World Health Organisation and to Gavi, the global vaccine alliance.

Britain has a high profile in sport, thanks in large part to the Premier League's global following among football fans, and is one of the most popular destinations for international tourists. It has the world's most respected public broadcaster, the BBC, and some of its best universities. Though the British government, like many others, botched its response to covid-19, its scientists have excelled themselves, as they do in many fields. They have helped to develop what may prove to be the most widely used vaccine (the one from Oxford-AstraZeneca) and to identify the most effective treatment for those who get ill (the steroid dexamethasone).

But none of these advantages is new. Britain enjoyed them all when it was a member of the EU—while also benefiting from being part of the world's largest trading bloc and its most important grouping of democracies. To have any chance of getting more out of its native strengths now than it did then, it will need a foreign policy which understands both how to build on them and what that requires. Rory Stewart, who resigned from his ministerial post running the Department for International Development (DfID) when Mr Johnson became prime minister in 2019, says that the self-examination needed has so far been lacking. "We do these things, but we have no very settled, confident idea about why we're doing these things."

The delayed but now imminent report of the government's "Integrated Review" of foreign policy, security, defence and international development should provide some of the foundations required; it has been billed by Mr Johnson as the biggest rethink of Britain's international stance since the end of the cold war. But several key decisions on the direction of policy have already been taken. In June 2020 Mr Johnson (himself a former foreign secretary, if not a terribly good one) announced that DfID would henceforth be subsumed into the Foreign Office.

In theory, that will make British policy more co-ordinated, combining the diplomats' lobbying power with DfID's technical expertise. It may also go some way to reversing the decline of Britain's diplomatic representation around the world. In the 1990s, says Mr Stewart, Britain had perhaps 25 diplomats in Zambia. Over the decades that dwindled to an ambassador, one other diplomat and local employees. Bringing in DfID may make representation more beefy. But many fear that any such benefits will come at the expense of lasting damage to the capabilities that made Britain an "aid superpower". "It's not a merger, it's the demolition of DfID," Andrew Mitchell, another former head of the department, has lamented. In November new legislation reduced foreign-aid spending from 0.7% of GDP—an established benchmark—to 0.5%.

Military spending has fared better. It is set to rise by £6.5bn more than previously planned over the next four years, reversing a decade of cuts and confirming Britain's status as the leading military spender among European members of NATO, with an annual budget of some £47bn. The pattern of spending leans heavily towards the maritime; there is also spending on technology, with the creation of an agency for artificial intelligence and a new emphasis on mounting attacks in cyberspace.

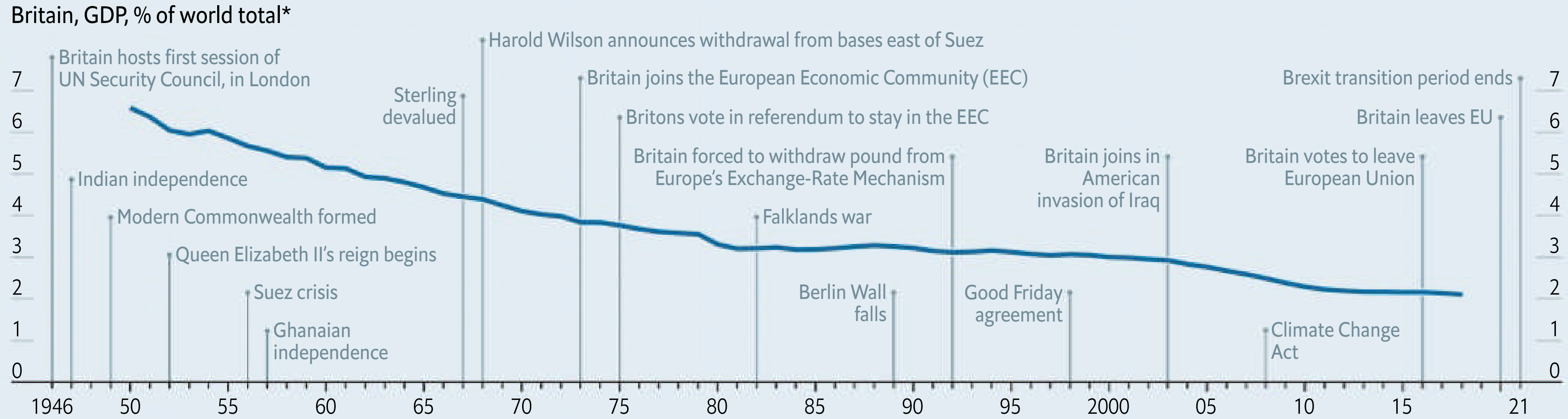
Freedom tastes of reality

Defence spending up, aid outlays down, the Foreign Office and development departments merged: the resources and institutions with which Britain's new strategy will be implemented seem set. The strategy which informs these choices, though, has yet to be clearly enunciated.

The government will want to remain as close as possible to America. Marta Dassù, a foreign-policy expert at the Aspen Institute Italia in Rome, sees the increased investment in security as "a sort of down-payment to the US, to show the incoming American administration that the UK is still very relevant". The government will take heart from the idea that the administration led by Joe Biden, the president-elect, will emphasise allies rather than "America First". Yet the degree to which Donald Trump's dramatic turn away from global leadership was accepted by the American people will not be forgotten. Nor is Mr Biden likely to favour aggressive interven-

It didn't shrink, but the world got bigger

Britain, GDP, % of world total*



Source: Angus Maddison

*At purchasing-power parity

tions like those which Britain has been willing to back in the past.

What of the world's other major powers? There was a time when Britain's Conservatives saw Chinese investment as playing a big part in Britain's economic future and went out of their way to court it. The authoritarianism of President Xi Jinping, the clampdown on Hong Kong and a toughened American stance—one that Mr Biden will not reverse—have forced a rethink. British policy towards Huawei, a Chinese telecoms giant, diverged from America's for some time; but in 2020 the company was barred from involvement in Britain's 5G plans. There are still some in Mr Johnson's party who want to see a deeper relationship with China. But the Sinosceptics seem to have the upper hand.

And then there is Europe. Britain is keen on its continuing "E3" security discussions with France and Germany (despite covid-19, the troika met five times in 2020 to discuss Iran and other matters). But it insisted that foreign policy, external security and defence co-operation be excluded from the negotiations which led to the deal reached on December 24th. Britain "can't actually tackle Europe in an entirely rational way at the moment," says François Heisbourg of the Foundation for Strategic Research, a French think-tank. "Although it's an integrated review, it's integrating everything except Europe."

Mr Johnson's government has avoided almost any mention of the EU in its foreign-policy discussions; but relations with the rest of Europe will play a crucial role in the success of any such policy, both directly and indirectly. Directly because Britain is still, physically and militarily, part of Europe. The adventurism of Russia under Vladimir Putin means that global Britain's military commitments will remain concentrated in its own European region, handled through NATO and in concert with its former EU partners.

What is more, many of Britain's global goals will be shared by the EU, and best pursued in partnership. Sometimes, though, the two parties' goals will clash. Ms Dassù warns that Britain will find itself competing with the EU in its relationship with the Biden administration, which "will look to Germans first and the UK second."

The deepest influence may well be the effect that leaving the EU will have on Britons themselves. If the divorce with the EU leads to ever greater internal tensions, Britain will remain hopelessly distracted and potentially diminished. A particular worry in strategic circles is that, were such divisions to extend as far as independence for Scotland, the future of the British nuclear-armed submarine force, which is based there, would be in doubt. Though independence will not easily be won under a British government which will not grant the people of Scotland the necessary referendum, it is not the unthinkable outcome it once was. Even without such a rupture, according to Sophia Gaston of the British Foreign Policy Group, a think-tank, Brexit has produced, or revealed, "an enormous amount of volatility" in public attitudes to foreign policy.

All alone, cousin

The prime minister, whose hero is Winston Churchill, frequently claims Britain to be "world-beating". A nostalgic devotion to such ideas is likely to be evident in the Integrated Review. Peter Ricketts, a former national security adviser, expects it to exhibit a tension "between the sort of exceptionalism that seems to be very much the leitmotif of the whole Brexit saga, and the reality that Britain will only make a difference in the world in partnership with other friends and allies." Karin von Hippel of RUSI, a British think-tank that specialises in military affairs, warns that the review risks resembling "a Christmas tree" with "a bit of everything" hanging off it. Britain could find itself overstretching and underachieving in a number of areas.

Take the tilt to the Indo-Pacific. Sceptics question how central this is to British policy, and what the country can hope to achieve. They view the idea of Britain as anything other than a secondary player in Asian security as "fanciful". There also appears to be little public enthusiasm for it. "The British people don't fundamentally buy into the argument of us having a specific role in the Indo-Pacific region at the moment," says Ms Gaston. And spending on a military presence well beyond Europe and the Atlantic may prove hard to justify. "I'm a great fan of the British military, but much of it is symbolic," says Mr Stewart. "They're going to end up with maybe 25 fighting vessels, at incredible expense. Are we actually going to go to war with China to stop them from taking Taiwan?"

In general, Britain has not looked like a very effective power over the past few years. Observers overseas have not just puzzled over its willingness to inflict harm on itself by leaving the EU. They have also marvelled at its lack of a plan for doing so and the years of political chaos that ensued. Britain's credibility as a champion of the rules-based international order plummeted when its government showed itself to be willing to break part of the withdrawal agreement it had just signed with the EU. And Mr Johnson's handling of the pandemic has hardly inspired faith in British pragmatism and competence.

That recent experience leads to doubts about whether the government is deploying sufficient resources on the projects that it most needs to succeed. Lord Ricketts, who was ambassador to France in the run-up to COP21, which produced the Paris agreement on climate change, worries that COP26 may be an example. He recalls that France's foreign minister at the time, Laurent Fabius, "spent a year travelling the world and putting it together, and we've got a part-time Alok Sharma [the business secretary] as our special envoy for climate change." He suggests Britain is "underweight" in preparing for it.

The common thread in all these doubts is whether Britain is fundamentally serious in what its leaders talk of achieving. Can it prioritise a few areas and devote sufficient attention and resources to make a real difference? And can it find a way to develop a proper policy towards Europe? Until it does so, the suspicion will remain that there is too much symbolism and too little substance in its thinking on foreign policy. Britain's accumulated assets in the game of nations will not make up for a failure to take that game seriously. ■

Fiscal stimulus

A hairy moment

WASHINGTON, DC

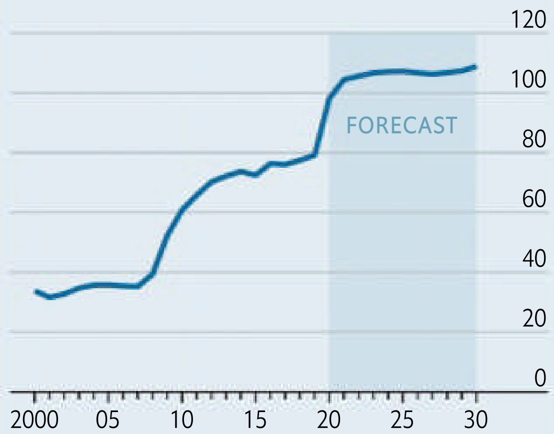
Congress injects a further $900bn of stimulus into the economy, narrowly avoiding a government shutdown

ONE IN EIGHT American adults in December reported going hungry during the previous week. This was, according to the Census Bureau's regular surveys, the worst result of the final three months of 2020. That tracked other measures of financial distress—the share of Americans estimated to be in poverty or reporting difficulties paying for housing—which have increased as the covid-19 epidemic entered a third, wintry phase and chilled the economic recovery. The burden has been felt most by the disadvantaged: in households with less than $25,000 in income, 32% of adults reported having to miss meals in the past seven days. More than 40% of black and Hispanic renters have little to no confidence in being able to pay for housing in the coming month.

All this—to say nothing of the death toll of the virus, which is now above 330,000—got worse while Congress debated for seven months whether the economy needed more support. The big fiscal stimulus passed in March, costing $2.2trn, made a real and measurable dent in hardship in the first months of virus-induced lockdowns. One-time cheques of $1,200 for most American adults and generous top-ups of $600 a week to unemployment benefits were part of a temporary experiment with a European-style safety-net. Government expenditure in 2020 increased by about 50% compared with the previous year, easily the greatest increase since 1963, when the Congressional Budget Office started counting. The result was that the savings rate among families went up, not down. Poverty was probably cut by 15%, the biggest one-off reduction recorded since measurement began.

King of debt

United States, government debt as % of GDP



Source: CBO

Many of the provisions in that first stimulus expired in the summer of 2020, as Democrats and Republicans failed to reach an agreement on a successor stimulus bill. Poverty crept back up beyond its old levels. The impasse was broken only after the presidential election was (mostly) past, and as negotiations were tied to legislation needed to keep the federal government open. At the last possible moment, days before the end of the legislative term, a compromise was reached.

Frantic negotiations led to a 5,600-page piece of legislation to spend $900bn released only a few hours before it was passed by large majorities of both chambers. It is more modest than the previous stimulus. The weekly top-up to unemployment benefits will be $300, and these payments will only go on until March. Another round of cheques, worth $600 this time, will be disbursed to most Americans. A moratorium on evictions will be extended, though it is not clear what will happen to the mountain of rent arrears or what compensation is owed to landlords.

President Donald Trump, self-proclaimed master of the art of the deal, will close out his presidency having never ▸▸

abandoned the role of bit-player to the various legislative dramas of his term—from the failed attempt to repeal Obamacare, to the tax cuts passed in 2017, to the spending bonanza triggered by covid-19. Still, his final performance should take the prize for buffoonery. The day after Steven Mnuchin, the treasury secretary and the president's chief negotiator, called the bill "fabulous" as it passed Congress, Mr Trump decided that it was really a "disgrace" and suggested he would veto it unless the cheques were supersized to $2,000 per American. This red line had not been mentioned by the White House as it was negotiating with Democrats in Congress; the excessive spending on foreign aid that Mr Trump also expressed disdain for was the same amount his budget office had called for in its request to lawmakers.

Having vented his frustration with Congress (and especially with Republicans who are only lukewarmly entertaining his efforts to overturn his election loss), Mr Trump relented and signed the legislation on December 27th, two days before the federal government would have shut down. The deal-master's tantrum was not without consequence, though. He has put Mitch McConnell in a bind: the Senate Majority leader would rather not have a vote on increasing the cheques to $2,000, as the president is still calling for, making him a target of the presidential Twitter feed.

Only a few more weeks of Mr Trump's drama remain. For Joe Biden, the president-in-waiting, the new stimulus sets the initial economic conditions for his administration. It is a short window. The enhanced unemployment benefits will expire before his first 100 days are up, and probably before widespread vaccination triggers an economic recovery. Mr Biden has expressed interest in a subsequent round of stimulus, perhaps one tethered to a green infrastructure programme, but his legislative leverage may prove limited.

In approximately three weeks' time, Republicans are likely to become overwhelmingly concerned with the federal deficit and the national debt (which ballooned during the Trump administration). This will be the main cudgel used to clobber Mr Biden's policy ambitions. Indeed, this is likely to be the final round of stimulus if Democrats fail to flip two Senate seats in Georgia, which will be decided by a run-off election on January 5th.

In the ideal version of American politics, economic-recovery legislation would be proportionate to crisis indicators, not the partisan affiliations of elected office-holders. Hunger and housing insecurity need to start subsiding before the need for additional support to households is ruled out. As the year of lost learning for many American pupils starts to register in standardised-test results, a programme of tutoring to make up lost ground may be necessary. In reality, the rapidly constructed European-style safety-net is time-limited. Covid-19 has highlighted, again, how desirable it would be to for stimulus measures to kick in automatically when the economy is weak. The seven months of will-they-won't-they brinkmanship make the current approach suboptimal. But Congress has managed to pass a stimulus, while also showing how poverty might be reduced in future. That is something to cheer. ■

The opioid epidemic

Looking the other way

The Feds sue Walmart for prescribing opioids without due care

"THE OPIOID epidemic is as bad as ever," says Caleb Alexander at the Johns Hopkins Bloomberg School of Public Health. In a year when all eyes were on the death toll from covid-19, about 80,000 Americans died from drug overdoses from June 2019 to May 2020, more than during any other 12-month period ever recorded, according to preliminary figures from the Centres for Disease Control and Prevention. Both federal and state governments have been suing companies for their part in this. On December 22nd the Department of Justice (DOJ) added a high-profile suit against Walmart.

The DOJ accuses the world's biggest retailer, which also manages some 5,000 in-store pharmacies, of fuelling the opioid epidemic by screening questionable prescriptions lackadaisically, despite repeated warnings from its own pharmacists. The suit was expected. Some counties have already sued other pharmacies. In October Walmart sued the DOJ pre-emptively, asking a federal court to clarify the responsibilities of pharmacists under the Controlled Substances Act (CSA), an unusual step that seemed to be primarily a public-relations exercise.

Push, turn, repeat

In its complaint, filed at a court in Delaware, the DOJ alleges that Walmart violated the CSA in various ways, as the operator both of pharmacies and of wholesale drug-distribution centres. Under pressure from their managers, Walmart pharmacists dispensed umpteen dodgy drug prescriptions, according to the suit. Managers denied pharmacists the authority to refuse prescriptions from suspect doctors, and told them to dispense prescriptions quickly because "shorter wait times keep patients in store". Walmart pharmacists continued to dispense prescriptions from suspected "pill mills", even when warned that other pharmacies were refusing them. And they ignored red flags, such as prescriptions for "trinities"—drug cocktails that often include an opioid and a muscle relaxant.

The complaint also alleges that, as operator of distribution centres (Walmart ceased distributing controlled substances from such centres in 2018), the company received hundreds of thousands of suspicious orders, which it failed to report to the DEA. Distributors are required to report orders unusual in size, pattern or frequency. Over an approximately four-year period, Walmart shipped an estimated 37.5m controlled-substance orders to its pharmacies, but reported only 204 suspicious orders to the DEA. During the same period, McKesson, Walmart's back-up distributor, which shipped far fewer orders, reported more than 13,000 suspicious orders from Walmart pharmacies to the DEA.

Walmart rejects the charges. The company says the suit is "wrong on the law and riddled with factual inaccuracies, mischaracterisations and cherry-picked documents taken out of context". Walmart points out that pharmacists are not doctors, so they should not second-guess prescriptions. Moreover, not dispensing a prescription also carries risks: they could harm a patient in need. State boards could investigate them or even take away their licence. And patients and doctors could sue.

The 160-page civil complaint from the DOJ reads like the so-called multidistrict litigation (MDL), says Andrew Pollis of the Case Western Reserve School of Law. More than 2,000 suits filed across the country by counties, cities and Native American tribes are co-ordinated by Dan Polster, a federal judge. The DOJ suit could be combined with the MDL, says Mr Pollis. Walmart has 60 days from the day the complaint was filed to respond. It could file a motion to dismiss the case, but the district court in Delaware is likely to reject such a motion. ■

Presidential power

All the president's pardons

NEW YORK

How many norms can Donald Trump break before he leaves office?

WHEN AMERICA'S founders included in the constitution the power to "grant reprieves and pardons for crimes against the United States", they sought to hand presidents a "benign prerogative" to show mercy to repentant law-breakers and "restore the tranquillity of the commonwealth", as Alexander Hamilton put it in Federalist 74; without such a tool, he fretted, "justice would wear a countenance too sanguinary and cruel". Opponents worried that it would tilt the nation towards "vile and arbitrary aristocracy or monarchy".

The anti-federalists, it seems, were right to be concerned. On December 22nd and 23rd President Donald Trump put his signature on nearly 50 eyebrow-raising pardons and commutations. The beneficiaries included his longtime confidant, Roger Stone; his former campaign manager, Paul Manafort; and several others prosecuted as part of Robert Mueller's investigation into Russian interference in the 2016 election. Others were Charles Kushner, Ivanka Trump's father-in-law, who spent two years in prison for witness-tampering and tax evasion; three former Republican members of Congress convicted of fraud and financial misdeeds; and military contractors responsible for killing unarmed civilians during the Iraq war.

Removing these figures from the naughty list sets the 45th president apart from his predecessors. In the eyes of Ben Sasse, a Republican senator from Nebraska, the pardons are "rotten to the core".

Article II, section 2, clause 1 of the constitution affords presidents latitude in granting clemency. The only limit noted in the text is a bar on pardons in the case of impeachments. Over the years courts have leant toward an expansive reading of the power: in 1866, the Supreme Court said pardons may be offered before an individual's conviction or even indictment, and no ruling has prohibited presidents from extending mercy to friends or family members.

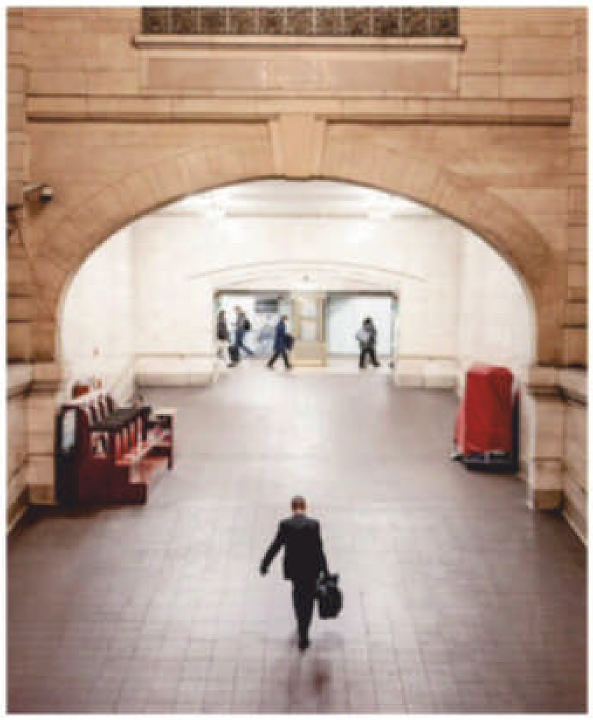
But protocols and norms have guided the process. A body within the Department of Justice—the office of the pardon attorney—assists presidents in deciding to whom they should extend mercy. The pardon attorney assesses candidates according to criteria such as "post-conviction conduct, character and reputation", "acceptance of responsibility, remorse and atonement" and "official recommendations and reports" from federal prosecutors or judges. Yet Mr Trump has taken on the task largely by himself, bypassing the office for all but a few of his pardons.

Presidents have often employed the pardon power in line with Hamilton's hopes. George Washington pardoned the Whiskey rebels (spirits producers who rioted against a tax on their goods) in 1795. Abraham Lincoln pardoned many Confederates during the civil war to encourage them to give up their drive towards secession and chart a path for the union's reconstruction. Gerald Ford's pardon of Richard Nixon after he resigned the presidency and Jimmy Carter's pardon of Vietnam draft-dodgers were in a similar mould: helping the nation heal after a period of trauma. Barack Obama commuted the sentences of more than 1,000 inmates serving time for mostly non-violent drug offences.

Mr Trump's pardons are different. In July Mr Stone received a commutation of his prison sentence for lying to Congress and obstructing the Russia investigation to protect Mr Trump; he got a full pardon on December 23rd. Mr Manafort, who at first co-operated with the Mueller investigation before lying to prosecutors, showed enough loyalty to attract Mr Trump's sympathy. George Papadopoulos, an early target of Mr Mueller's investigation, admitted his crimes and acknowledged to a judge that his lies to federal agents "could have harmed our nation". In justifying his pardons of these and other figures pursued by Mr Mueller, Mr Trump referred to the Russia investigation as a "hoax" and as the "greatest witch hunt in American history".

He offered a similarly thin rationale for coming to the rescue of four former contractors at Blackwater, a private security company founded by Erik Prince, the brother of Betsy Devos, Mr Trump's education secretary. The men had been found guilty of killing at least 14 Iraqis, including two children, in 2007. The indiscriminate shooting, grenade-throwing and sniper fire into Baghdad's crowded Nisour Square was dubbed the "My Lai massacre of Iraq" by FBI investigators. Mr Trump praised the quartet for their "long history of service to the nation", and noted support for their pardons by fringey Republican congressmen like Steve King and Louie Gohmert.

Mr Trump is hardly the only recent president to take liberties with the pardon power. George H. W. Bush pardoned six people involved in the Iran-contra scandal he had tolerated as Ronald Reagan's vice-president. Bill Clinton drew criticism across the political spectrum when he pardoned Marc Rich, a fugitive tax-evader who raised millions for the Democratic Party and whose wife contributed nearly $500,000 to Mr Clinton's presidential library. But no president comes close to Mr Trump's ratio of self-serving pardons to those issued in the interest of mercy or national welfare. ■



The Zoom tax

Start spreading the dues

NEW YORK

A tri-state wrangle over tax revenues compounds New York's difficulties

ACCORDING TO A Manhattan Institute poll, more than half of high-earning New Yorkers are working entirely from home and 44% are considering leaving the city. Ned Lamont, Connecticut's governor, has said "the old idea of the commuter going into New York City five days a week may be an idea that's behind us." It does seem unlikely that the tens of thousands who commute from Mr Lamont's state will continue to do so, or indeed the 400,000 that commute to the Big Apple from New Jersey. The region's governors have worked well together to tackle the pandemic, but the cordialness may soon end over taxes.

When people from neighbouring New Jersey and Connecticut commute to New York to work for a New York-based employer, they must pay New York tax on the related earned income. Their home states usually offer a credit to those workers. Even those who work from home must pay New York taxes, according to the state's "convenience of the employer" rule—unless the employee is working outside New York by necessity. Taxpayers and neighbouring states are looking closely at this loophole, as a deadly epidemic probably counts.

On December 22nd Connecticut and New Jersey filed briefs to the Supreme Court to consider a case which challenges a state's ability to tax non-residents' income while they are working remotely. New Hampshire filed suit against Massachusetts in October over taxing New Hampshire residents who are working remotely. "We are hopeful that the Supreme Court will hold that states do not have the constitutional authority to tax individuals who neither live nor work there," said Phil Murphy, New Jersey's governor. This could cost New York billions, says Scott Roberti of Ernst & Young, an accounting firm.

This is not the only threat to the city's finances. Firms have considered leaving the city before, but employees are now less resistant to moving, says Kathryn Wylde of Partnership for New York City, an industry group. "They've been working remotely for ten months and they've adjusted to that idea." Goldman Sachs is mulling moving its asset managers to Florida. Elliott Management plans to move its headquarters from midtown Manhattan to West Palm Beach. Blackstone, a private-equity firm, and Citadel, a hedge fund, are also opening offices in Florida, which has no state income tax.

Companies are also watching the progression of the Billionaire Mark to Market Tax Act, which would treat unrealised capital gains on billionaires' assets as taxable income. Andrew Cuomo, New York's Democratic governor, has said he would veto any soak-the-rich legislation, because it would drive out wealthy, mobile residents, though that would bring a fight with the party's progressive wing. It would not take too many moving trucks for the city to feel the loss in revenue, says Michael Hendrix, also of the Manhattan Institute. A 5% loss of New Yorkers making a mere six figures would result in an annual loss of $933m in revenue—roughly the amount allocated for the city's health department. ■

America's population

The great slowdown

CHICAGO

Policies and the pandemic are adding to long-term demographic stagnation

FOR GENERATIONS, demographers considered America a standout. Lots of immigration and relatively high fertility rates increased its population faster—and kept it more youthful—than its rich-country peers. Americans within their borders were also exceptionally mobile. Over many generations they proved much readier than Europeans, for example, to flit between cities (or states) in search of a new job or lifestyle. That dynamism helped to produce a flexible labour force and lively economy.

Now the exception is waning. Several big states have lost their demographic oomph. In mid-December the US Census published new population estimates (to be used for comparison when official census data are released in 2021). For those keen on growth, they offer mostly grim reading. California's population has stalled and may, for the first time, be declining. Illinois, which has shed over 250,000 residents in a decade, has shrunk for seven successive years. In the year to July, thus counting in little pandemic effect, New York endured more shrinkage than any state: it lost 126,000, or 0.65%, of its people.

Some states, mostly in the South, are growing fast, but not enough to lift the national rate. Overall, America's population is barely inching up by historical standards. In the year to July it grew by 0.35% (or 1.2m) to 329m. No year since 1900 has seen such a miserly gain, though the year to next July could be slower still. Even in the dark days after the first world war, as the Spanish flu raged, growth was faster. William Frey of the Brookings Institution calculates expansion in the decade to July 2020 at just 6.6%. If his sums are right, that is the lowest decadal gain since 1790 (see chart).

Evidence has also piled up to show Americans becoming much less mobile. Mr Frey notes a smaller share of them moved house in the year to March than at any time since reliable figures were first gathered in 1947. Just 9.3% of the population moved, barely half the figure in the 1980s, part of a steady decline over decades. Many factors contribute to that, including the high cost of housing that makes it difficult for younger Americans to move.

Kyle Mangum of the Federal Reserve in Philadelphia published a paper early in 2020 analysing why people move less frequently than their parents did, saying many factors—especially the absence of new, fast-growing cities and more similarity between various labour markets—mean that "this nation of pioneers has parked its wagons". He also notes how technology, such as air-conditioning, previously did much to open up territory for settlement. More recent technology, notably the internet, may instead have made it less necessary to move to find work.

Various changes reinforce each other. Less immigration, for example, has several effects. The just-concluding decade will see the smallest expansion of the foreign-born population in any decade since the 1970s. Far fewer immigrants are flowing to big cities such as Los Angeles, New York and Chicago, helping to explain why they are not growing. Lower immigration hits domestic mobility, because recent immigrants are among the readiest to move for work. It may also bring down fertility rates. The average American woman is now expected to have 1.7 children in her lifetime, the lowest level in decades. That's below France's rate (at 1.9), on par with Britain's, and only slightly ahead of Canada's (1.5).

The result is more demographic stagnation. Mr Mangum sees a long-term reversion to the mean as America becomes less of an exception among rich countries. More recent influences accentuate that. The policies of Donald Trump sharply cut inflows of migrants. Joe Biden's administration will reverse some of these but probably not all, or at least not quickly.

The pandemic has its own effects. Two academics at UC Berkeley, Joshua Goldstein and Ronald Lee, suggest deaths from covid-19, which may exceed 500,000 by April, will cut average life expectancy by more than one year. The pandemic and the economic slump are also causing a baby bust. Two researchers, Melissa Kearney at University of Maryland and Phillip Levine at Wellesley College, estimate there will be 300,000 fewer births than otherwise expected in 2021 (there were 3.7m in 2019).

Post-pandemic, some of this could be reversed. Those putting off having children may cause a brief baby boom in 2022 or 2023. Eventual reopening of borders should see immigration tick up again. Even so, slower population growth will "continue in the coming years" says Joseph Chamie, a demographer in Oregon, because America "is looking more and more like Europe, with lower fertility, more measured levels of migration".

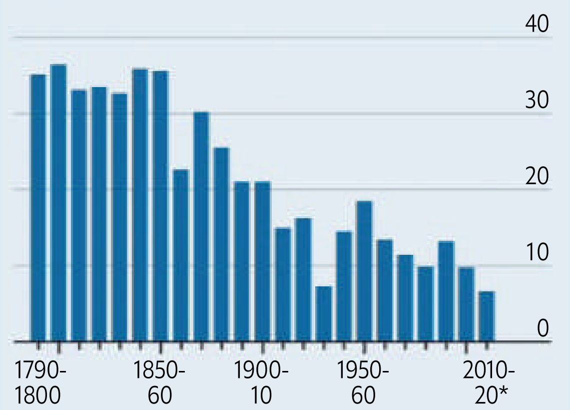
Does that matter? For individual states having fewer people undoubtedly hurts. Several Midwestern and north-eastern states, for example, will lose political clout as congressional and electoral-college seats go in reapportionment in 2021. It also matters for state finances if there are fewer taxpayers to pay for public services.

But for the country as a whole Mr Chamie doubts that bigger is always better. He rejects "a pro-growth dogma", in which it is assumed that having more consumers, workers and taxpayers makes sense. He wants a debate on what is desirable, noting the environmental costs of a bigger population. The US Census set out scenarios for the forecast population in 2060. Were the country to return to being an exceptional place, open to high levels of immigration, its population could reach 447m. As a more normal rich country, less welcoming to immigrants, it could shrink to 320m. ■

Less exceptional

United States, average population growth

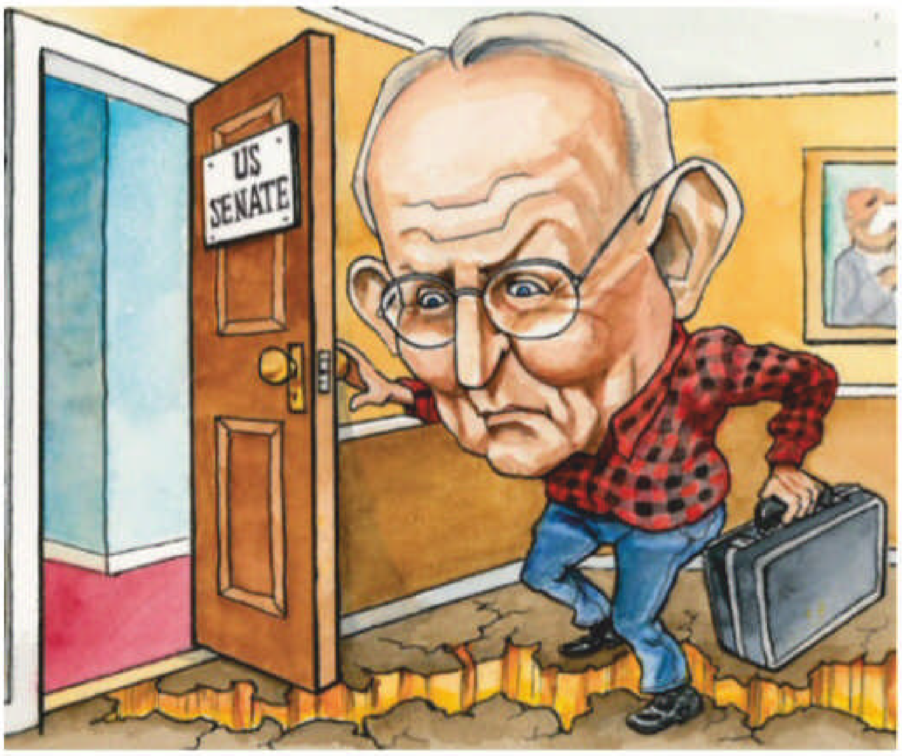
By decade, %



Source: William H. Frey, Brookings Institution *Estimate

Lexington | Play it again, Lamar

The Senate will be worse off without the veteran Tennesseean dealmaker



About the only light note of a grim Christmas season on Capitol Hill was provided, characteristically, by Lamar Alexander. At the end of a gruelling negotiation of the $900bn stimulus that President Donald Trump belatedly signed this week, the 80-year-old Tennesseean, who will retire from the Senate in January, took to a piano in the Hart building to play carols.

Bipartisan admirers of Mr Alexander, one of the last reliable dealmakers on the Hill, gathered round. Amy Klobuchar of Minnesota swayed to the performance while Susan Collins of Maine filmed it on her phone. Tim Kaine of Virginia joined his fellow former governor on the harmonica for a rendition of "Go Tell It on the Mountain". Billing themselves as "The Amateurs", the two senators once played together at a music festival on the Tennessee-Virginia border. Theirs was a rare bipartisan act in what has been by some length the most unproductive Congress ever. "I'm really going to miss both his friendship and leadership," said Mr Kaine of his departing co-performer.

The regard for Mr Alexander on the left is not for his moderation, exactly. As he underlined during an interview in his Senate office—amid a clutter of packing-cases and ancient campaign souvenirs—he is fiercely partisan on most issues. He has an A rating from the National Rifle Association and a mediocre one for bipartisanship from the Lugar Centre. He has also capitulated to Mr Trump. Despite speculation last year that he might join Mitt Romney in voting to convict the impeached president, Mr Alexander ended up voting to bar witnesses from his trial. There would be no point, he said, because the charges levelled at the president had been proved. He voted to acquit him anyway.

Yet, unlike many in his party, Mr Alexander hews to the traditional view of the Senate as above all a place to pass laws. And as a former education secretary and two-term governor, he knows how to do so, including by compromising. He has thereby maintained influence both within his party and across the aisle, a rare balancing-act, which has made him unusually effective.

Mitch McConnell, a lifelong friend, choked back tears in praising Mr Alexander as "one of the most brilliant, most thoughtful and most effective legislators any of us have ever seen." Thus, for example, when he rallied 99 senators behind a package of measures against the opioid crisis in 2018. Or when he united Paul Ryan, Mr McConnell and Barack Obama behind a sweeping education reform in 2015—for which Mr Alexander still praises the former president: "I found him to be a very straightforward, well-informed and effective partner." It is harder to imagine a genuine moderate Republican such as Ms Collins, or one less trusted by the party leadership, such as Mr Romney, pulling off such feats. Discouragingly for those who hope Joe Biden's return-to-sanity candidacy might ease the Senate's deadlock, however, the rarity of Mr Alexander's performance also suggests how hard that will be.

The retiring senator attributes much of the dysfunction to technological change: "We live in this new internet democracy which pushes everything to the extreme." But that underplays the structural changes the Senate is undergoing. Following a path trodden by the House of Representatives, the ideological gap between its most left-leaning Republican and most moderate Democrat is growing. And most senators have little incentive to try to bridge it. Hotheads in both parties will brand compromise with the other side as surrender: the president has himself denounced most of the few bipartisan bills he has signed. Oscillating control of the Senate—as illustrated by the all-American drama of Georgia's looming run-offs—has given a method to that madness. With control of the chamber at stake, the opposition party is rarely willing to help the governing one succeed. The bipartisan stimulus deals, forged amid calamity, shows what it takes to buck this trend. "The political rewards for working in the middle are diminished," Mr Alexander acknowledged.

The extent to which he has carried on regardless is impressive. Beyond his abilities, it probably owes something to the political tradition of his eastern Tennessee stronghold. A redoubt of "mountain Republicanism", a strain of Appalachian populism, its voters have long been relaxed about the government-expanding compromises Mr Alexander has sometimes made. Yet not even he could survive the past four years unscathed.

By his own admission, he has not come close to tackling any big national issue—such as immigration or health-care policy—under Mr Trump. The president's relentless warring has made the necessary compromises impossible. This has in turn made Mr Alexander's balancing-act between the parties untenable. He is too independent-minded to be trusted by the Trump party. Meanwhile, notwithstanding their old regard for Mr Alexander, Democrats are now likelier to raise his strained apologism for the president than his dealmaking.

Marring Lamar

He gave Lexington a taste of that contortion, by responding angrily to a question about his party's commitment to electoral democracy. Though he acknowledged that almost two-thirds of Republican House members and state attorneys-general had bent to the president's demand and signed a motion to invalidate the results in the four battleground states that gave Mr Biden victory, Mr Alexander considered the question not merely provocative but offensive. He suggested, implausibly, that the failure of the Democratic candidate, Stacey Abrams, to concede a gubernatorial race in Georgia two years ago was no less a threat to American democracy.

Your columnist did not enjoy that exchange; but found it revealing. A survivor from a better age, Mr Alexander has found a space to operate between the two parties that few could. Yet not even he can negotiate the current madness. The result is a lesson for Mr Biden. And an unworthy end to a fine career. ■

US-Mexico relations

Insecure

MEXICO CITY

A new law might hobble the US-Mexican fight against drug cartels

MEXICO CAN be relieved to finish the Trump era in one piece. Swingeing tariffs and border closures, ever threatened, never came. Nor did the bill for a wall on America's southern border which Donald Trump promised to build at Mexico's expense. The president's attack on the North American Free Trade Agreement, which includes Canada, catalysed advocates of trade and integration. One could almost conclude that Mr Trump will leave relations between the two countries sturdier than he found them.

But the Trump show always has a twist. On October 15th Salvador Cienfuegos, Mexico's defence minister from 2012 to 2018, was arrested in California on drug-trafficking charges, which he denies. Mexico was furious to learn that the United States had investigated him in secret for years.

On November 18th, in a shocking reversal, the United States dropped the charges against Mr Cienfuegos, who returned swiftly to Mexico. Court documents cite "sensitive and important foreign policy considerations", implying that Mexico threatened to halt cross-border security co-operation if Mr Cienfuegos did not go free. Prosecutors in the United States cannot recall any other occasion where a foreign government has appeared to snatch its own citizen from the jaws of America's criminal-justice system so brazenly.

The episode, described by one American official as "a total shitshow", has complicated the Mexican-American relationship just as it had at last seemed to be getting simpler. The lack of trust shown by the United States has awoken anti-*yanqui* sentiment among left-wing supporters of Andrés Manuel López Obrador, Mexico's populist president. The backlash was sharp: by December 15th Mexican legislators had rushed through a law that wraps red tape round foreign agents on Mexican soil, complicating American anti-narcotics work. It serves as a warning to Joe Biden that no love-in awaits when he assumes the presidency later this month.

In fact, Mr López Obrador, known as AMLO, seems sad to see Mr Trump go. He has spent two years schmoozing his counterpart. As president-elect, Mr López Obrador, a keen writer, sent a letter to Mr Trump observing that they had both risen to "displace the political establishment". Although relations under Mr Trump were always one tweet away from a crisis, Mexico kept calm. AMLO sent troops to patrol the border, publicly praised Mr Trump and waited six weeks to congratulate Mr Biden.

For all that, AMLO could not abide the arrest of Mr Cienfuegos. "Do you think Canada, France or Great Britain would be OK if the Americans detained their defence secretary without telling them?" wonders a Mexican official. But sovereignty is not the only concern. A foreign trial of Mr Cienfuegos might have unearthed various scandals. A stain on Mexico's army would cast doubt on the wisdom of AMLO's strategy to put it in charge of new infrastructure.

The case against Mr Cienfuegos was ini- ▸▸

tiated not by Mr Trump but by prosecutors in New York's Eastern District (EDNY). In a letter to a federal judge, they explained that the investigation was built around a wiretap of Mr Cienfuego's Blackberry, in which he allegedly conspired with leaders of H-2, a lesser-known Mexican cartel.

The prosecutors who would have tried the case—had charges not been dropped—have become familiar with Mexico's underworld over the past decade, applying tricks they honed against the Italian mob. In 2019 they secured the conviction of Joaquín "El Chapo" Guzmán, a drug lord who was extradited after twice escaping from his Mexican prison cell. The same year they charged Genaro García Luna, Mexico's security minister in 2006-12, with accepting bribes from El Chapo's Sinaloa cartel (AMLO has also asked the United States to extradite Mr García Luna back to Mexico, where charges await). The district has no plans to stop chasing big fish abroad; the cases are as prestigious as they are consequential.

But such cases rely on precisely the kind of evidence that will be tougher to gather under Mexico's new national-security law. It requires foreign agents to share all information gleaned from activities on Mexican soil with the authorities there. All Mexican officials who speak to agents must file written reports. And agents themselves have no immunity if Mexico deems them to have overstepped their bounds.

Cases painstakingly built against past kingpins would have been severely hampered had this law existed at the time, says one of the EDNY prosecutors in the El Chapo case: to share intelligence on a cartel from a confidential source is to risk that source's life. Mexican officials scoff at the notion that the United States deems their government trustworthy enough to receive weapons, but not information.

The security relationship is at a critical juncture. American agents will have to choose between violating Mexico's trust by ignoring the law and conducting feebler investigations from American soil. Cartels are trafficking ever deadlier drugs, such as fentanyl, to American consumers. Mexico is on track to notch up a record murder rate for the fourth year running. The United States has allocated $3.1bn since 2007 to improve Mexican law enforcement, but AMLO has stopped spending those funds and wants them redirected to "development" of Mexico's poorest states.

Though erratic and obsessed with migration and trade, Mr Trump was incurious about Mexico. Benign neglect suited AMLO. A Biden administration will act methodically and show more interest. Mexican officials fear future tiffs over labour rules, human rights and the environment. Even if Mr Biden is able to put crime-fighting collaboration on a stable footing, the post-Trump era will not be easy. ■

Canadian cuisine

No source for soy

VANCOUVER

A beloved condiment runs out

THERE IS ONE bottle of China Lily soy sauce left in Vilma Portillo's kitchen and she is measuring it out—drop by drop. "We know we have to ration it so we're only using very small amounts, like one drop at a time," says Ms Portillo. "We're about two fingers into our last bottle." The last time there was a China Lily soy-sauce drought in northern British Columbia, in 2018, Ms Portillo's husband, Cody Malbeuf, stopped eating rice for three months. He vowed never again to be caught short.

The sauce, made by Lee's Food Products, a company in Ontario, has been a household staple in northern British Columbia for six decades. Mr Malbeuf is so besotted with the brand that he remembers the first time he saw a bottle of it when he was 11 years old at his aunt's dinner table. He can measure how stressful his day has been by how much he douses his food in the sauce.

The shortage of China Lily turned into panic for Mr Malbeuf and others in late November when no bottles could be found on shelves in Prince George and nearby towns. Before Christmas, online advertisements prompted offers of ten times the normal asking price of C$3 ($2.35) to C$4.

One man auctioned off a supply of China Lily to his aunt, who planned to redistribute them as Christmas presents. On eBay, a pair of bottles can be found for C$50. When one of the grocery stores managed to bring in a shipment, Mr Malbeuf saw a photo of his beloved condiment on social media and demanded that his wife leave work to rush to the shop with him. Customers in the long queue were limited to one precious bottle each.

China Lily is viewed with particular affection among the province's indigenous households. It is used liberally in indigenous fried bread, known as bannock, and with salmon. Shirley Nehass of the Tahltan Nation says she grew up with China Lily because it was the only kind of soy sauce anyone had ever seen.

To Ms Nehass, China Lily was the seasoning for every dish. Lise Luppens, who worked as a dietician in northern British Columbia, notes that many indigenous people include China Lily as a "traditional food" among dishes such as chow mein and curried bologna.

The sauce's taste is distinctive, if not authentic. China Lily is noticeably sweet, thanks to the addition of sugar and caramel flavouring. Brian Chang, the owner of an Asian grocery store, says that although he carries 15 other types of soy sauce from Thailand, the Philippines, China and Japan, these are less popular than China Lily. "A lot of people up north like things sweet," says Mr Chang. "Other soy sauces are not sweet and when they try other soy sauce it doesn't taste the way they expect it to."

In late November a rumour circulated that Lee's Foods had shut down. That is untrue, says Colleen Levitt, who works at the company. She points out that demand is higher because people crave comfort food during a pandemic. "We're making it as fast as we can," she adds.

Mr Chang's last shipment arrived two weeks ago and was sold out in a day of panic-buying. Since then, he has fielded about six calls a day from anxious customers eager for their next fix. He expects more black-market peddling of the sweet and salty sauce. Christopher Wong, president of Lee's Foods, and the founder's grandson, is grateful for his niche in British Columbia's food chain. "Loyalty on that scale is unheard of in this day and age," he says. ■

Vaccination in Argentina

Sputnik's orbit

BUENOS AIRES

Argentina rolls out a Russian vaccine with fanfare and haste

At their dinner table in Mendoza, Antonio and Marta, husband and wife, disagreed over the Russian vaccine Sputnik V. "If it's available, and free, why not?" asked Antonio, a sprightly businessman in his early 70s. "Not for me," retorted Marta, a decade younger. "No way I think the Russians have the safe answer to this virus."

On December 29th Argentina's government unleashed Sputnik V across the country, issuing some 300,000 doses to all 23 provinces and the city of Buenos Aires. Elsewhere in Latin America, Mexico, Chile, and Costa Rica had been vaccinating on a small scale before the holiday with the Pfizer-BioNTech vaccine. But Argentina, to quote a presidential adviser, "is leading the charge to inoculate all".

Still, the cavalry has been met with doubts. Alberto Fernández, Argentina's 61-year-old president, broke his promise to be the country's first recipient, live on television, after Russia's president, Vladimir Putin, who is 68, said he would put off his jab because of his age. Then Mr Fernández's government sidestepped the normal procedures of its medical regulatory agency, ANMAT, in authorising Sputnik V.

On the eve of the vaccine's launch, ANMAT specialists leaked internal memos to the Argentine media, expressing concerns about "adverse effects" of Sputnik V on older patients in trials in Russia. Warnings of "symptoms like influenza" got front-page headlines, though these are common with many vaccines.

Unsurprisingly, Sputnik V has become a political football. Alfredo Cornejo, leader of the Radical party, alleged corruption, suggesting that officials' demands for bribes had scuppered deals with other producers in Europe and the United States.

Geopolitics played a role, too. The decision was "ideological", says the presidential adviser, pointing to the role of Cristina Fernández de Kirchner, a former president who now serves as a powerful vice-president. Ms Fernández, who wants Russia and China to counterbalance American influence in the region, opened a back-channel to Mr Putin in November. (She also supported his annexation of Crimea in 2014.)

As the government delivered Sputnik V to health-care staff and the very old, broadcasting films of vaccinations, doctors expressed quiet dismay about the politics. "But the very idea of a vaccine being available could calm things down," said a doctor in the capital, noting a spike in covid-19.

Sputnik V has a chequered history in Russia, where it bypassed the usual safety and efficacy trials for authorising the drug before use. New randomised trials are now belatedly under way in Brazil, the United Arab Emirates and India, so the vaccine may yet be redeemed. But Argentina's decision to evade regulators and make political hay out of vaccinations has eroded confidence in the jab.

This could cost lives. Antonio has since agreed with his wife that Sputnik V is not for him: "I've too many doubts about this now." Other countries tempted to play politics with vaccines should pay heed. Drug approval is best left to the experts. ■

Chilean wine

Label your libation with loving lustre

SANTIAGO

Chilean wines are prospering in China, thanks to savvy packaging

In thirty years Chile's wine industry has gone from backwater to global powerhouse. Its vineyards are blessed with few pests, warm summers and low costs. That has helped it become the world's largest non-European wine exporter by volume. Now it is taking China by storm; only Australia and France send more wine there.

The absence of tariffs helps. Since Chile signed a trade deal with China in 2006, the value of its wine exports to that country has rocketed from $5m to $250m in 2019. Another factor is Chile's ability to make wine that is specially branded and packaged for the Chinese market, known in the trade as "private-label" wine. This requires not only good plonk, but also impeccable labelling and bottling: the drink is often given as a gift, so it has to look impressive. Chilean wine sent to China fetches an average of $33.11 a case, a price that includes all costs up to loading it onto a ship, compared with $27.42 for wine sent to the United States.

Old wine in new bottles

"The key to success in China is to understand the market and...cultural context," says Nathalie Malbrán, who oversees Asia for Viña Futaleufú, a winery that specialises in private labelling. Founded in 2012, it now leads Chile's wine exports to China, ahead of dominant brands Concha y Toro and Montes. China's size and diversity mean there is no common pattern for bottles and labels. "It is essential to be flexible," says Ms Malbrán.

This business model has fostered a flourishing label-design sector in Chile to cater for China's changing requirements. It is a huge challenge, says Carlos Scheuch of Colorama, a label-maker, not least because the labels must withstand rough weather and extreme temperatures on the month-long journey across the Pacific to China, then overland to the retailers.

"The label designs are spectacular," he says. They involve different textures, unusual shapes and advanced printing techniques such as embossing, silk-screen printing and coloured metallic foils. Gold and silver are favoured colours. Whereas chateaux often appear on French bottles, Chilean private-label ones favour landscapes, animals, birds and images that emphasise their Chilean character. Designs are rarely repeated, so printers have adjusted to one-off print-runs. "Eighty per cent are printed only once and never again," says Mr Scheuch.

The wine's name is noticed as much as the design. The ideal is to retain some meaning when transliterated or written phonetically in Chinese, says Jaime Muñoz, who founded Antawara Wines in 2006 to enter the Chinese market. The transliteration may be Chinese for an auspicious number or a hopeful omen, he says.

Viña Futaleufú, for instance, trades in Asia under the simpler name Anun Wines. The two Chinese characters for Anun (*an* and *neng*), which means "putting down roots" in Mapudungun, the language of Chile's Mapuche people, can be interpreted as "safe" and "capable". Anun also markets a brand called Ahu, a ceremonial platform for the *moai* stone carvings on Rapa Nui (Easter Island), a Chilean territory. A gold *moai* head stands out on the black label.

Six out of Chile's top ten wine exporters to China use private labels, says Ms Malbrán. This is paying off. In 2016 China became Chile's main wine destination by value, though in 2020 it slipped behind Brazil and Britain by volume after covid-19 left stocks languishing in Chinese warehouses. Chile's industry insiders reckon that time, and vaccines, will restore the Asian giant to its perch. ■

Digitising government in Japan

Update required

TOKYO

Suga Yoshihide is dragging the bureaucracy into the digital era

HIRAI TAKUYA keeps a tablet computer propped on his desk and an Apple Watch on his wrist. It is an unusual look for a Japanese politician. As Japan's new minister of digital reform, his task is to make the stubbornly analogue Japanese government work a bit more like him.

Japan has some of the world's best digital infrastructure, with top-notch mobile and broadband networks. Yet interacting with government agencies often involves slogging through labyrinthine offices and leafing through paperwork. In a survey of 30 countries in the OECD, a club mostly of rich countries, Japan ranked last in terms of providing digital services: only 7.3% of citizens requested anything from the government online in 2018, a fraction of Iceland's 80%, and behind even countries considered relative technological backwaters, such as Slovakia and Mexico.

Suga Yoshihide, Japan's prime minister since September, has vowed to "advance digitisation in government". He is not the first to make such a promise: an e-government strategy announced in 2001 set the goal of putting all of Japan's administrative procedures online by 2003. Yet as of 2019 just 7.5% of the nearly 56,000 processes handled by the national government can be completed online. Mr Suga, however, is putting more weight behind the drive to digitise than any of his predecessors. A new "digital agency" is being set up to oversee reforms. The creation of such a body not only signals the commitment of the prime minister, argues Nomura Atsuko of the Japan Research Institute, a think-tank in Tokyo, it also protects the project from the political winds.

Covid-19 exposed Japan's "half-baked digitalisation", Mr Hirai says. Whereas South Korea got cash relief to 97% of households in two weeks, Japan's payments took months and in many cases required in-person visits or handwritten forms. Even applications for subsidies to buy equipment for teleworking had to be completed largely by hand. Such failures shook bureaucrats out of a long slumber. "These are things people need to do, that they know they need to do, but kicked the can down the road," Mr Hirai says. "All of a sudden they're willing to do it." The ruling Liberal Democratic Party recently purchased 400 tablet computers for MPs to encourage them to go paperless, Mr Hirai smiles.

The new agency, which will be launched soon, is meant to act as a "control tower" for the government's IT policies. "The national government has its own digital architecture, each ministry has its own unique digital architecture, and then each local government has its own unique ar- ▸▸

→ Also in this section

chitecture, so there's no interoperability within the government," laments Sato Motohiko of the Japan Association of New Economy, an e-business lobby group. The agency will consolidate control over IT procurement previously devolved to different arms of government. Mr Hirai aims to shift the bureaucracy to cloud-based systems to make it easier to share data. The Daiwa Institute of Research, a think-tank, reckons that digitisation of government services could boost GDP per person by more than 1%—a hefty improvement.

The first step involves ending archaic habits. Kono Taro, Japan's minister for administrative reform, catalogued some 15,000 circumstances in which a *hanko*, or personal seal, was required to carry out a bureaucratic procedure; now, he says, only 83 remain. Fax machines, still a staple of the Japanese office, have come under fire. So too has the custom of sending email attachments as zip files with a password in a separate message, which does little to enhance security but causes untold inconvenience. After that come harder tasks. "We need to take the second step: from digitising data to utilising data," says a former senior official. That, in turn, will involve breaking down the barriers between ministries, says Robert Ward of the International Institute for Strategic Studies, a think-tank in London.

According to Goldman Sachs, an investment bank, goods consisting of intellectual property, such as software, account for less than 3% of the Japanese government's fixed assets, compared with 8% for America's. Wider adoption of the national ID card, known as "My Number", would make it easier to put services online, but many Japanese have resisted because of privacy concerns. Going digital also threatens to alienate the elderly. Mr Hirai envisions turning bureaucrats who now sit behind windows at counters receiving forms into "digital-support" workers to help ageing residents learn to apply for services on smartphones.

Finally, for the digital agency to make a difference, Mr Hirai will have to find the talent to staff it. The government lacks engineers and IT specialists. Competition is already fierce in the private sector. Mr Hirai hopes to make the agency feel more Silicon Valley than Tokyo ministry. His slogan is "Government as a startup". He points to Taiwan's popular digital minister, Audrey Tang, as a model. "Jeans will be fine," he says, a radical departure from the suit and tie that are *de rigueur* in Japanese government offices. Engineers will be paid at competitive rates and allowed to work remotely. A tech leader from the private sector will be tapped to head the agency. "The challenge of changing a national system is attractive," Mr Hirai says. That may be so—but it will not be easy. ■

The Durand Line

A big beautiful wall

KABUL

Pakistan has fenced itself off from Afghanistan

THE TRIBESMEN outside the Pakistani embassy in Kabul huddle into their woollen shawls and wait. A few years ago, grumble Abdul Haq Barakzai and his friends, a trip to Pakistan for medical treatment was as straightforward as slipping a border guard a few hundred rupees. As well as the main crossing at Torkham, a rich choice of tracks led across the mountainous frontier. No paperwork was needed to cross. Now he must stand in line with a bundle of doctors' notes to obtain a visa.

The 2,600km boundary between Afghanistan and Pakistan was marked out in 1893 by Sir Mortimer Durand as the limit of British India (see map). The arbitrary frontier has long been ignored by tribesmen, traders and guerrillas on either side. Ihsanullah Shinwari, a businessman in the Pakistani city of Peshawar, describes how he and his friends used to nip across to eat fried fish in the Afghan city of Jalalabad: "It wasn't like going to a different country."

This porousness has loomed large in world affairs. After the Soviet invasion of Afghanistan in 1979, America funnelled weapons over the border to rebels. When America invaded Afghanistan, in turn, in 2001, the Taliban flitted back and forth from havens in Pakistan. And for decades a large share of the world's supply of heroin was spirited across to Pakistan.

All that began to change in 2016, when a thin metal line of chain-link fencing and razor wire, punctuated by forts, slowly unspooled along the border through the Hindu Kush mountains and the deserts of Balochistan. Dozens of unofficial crossing points have been closed and cross-border travel is being channelled to 16 formal posts. Despite winding through some of the most rugged and inhospitable landscapes on Earth, the fence will be complete in weeks, says Pakistan's government.

America, among others, has for years advocated building a fence, in the hope of stemming the insurgency in Afghanistan. But in the end Pakistan moved ahead because of terrorists mounting attacks on its side of the border before seeking refuge in Afghanistan, not the other way round. Pakistani soldiers are bullish about the effect so far. They credit the fence with reducing attacks by Tehreek-e-Taliban Pakistan (TTP), a home-grown militant group.

Western observers are more doubtful, saying a fence alone cannot bring security, particularly in such terrain. "A fence is useless if you can't observe it. You and I could walk up with a pair of wire-cutters and go through, and then it's not a fence," carps a Western military official. The scale and profitability of smuggling across the border mean that smugglers will not meekly shut up shop. Sceptics also point out that the Afghan Taliban have been able to cross the frontier easily not because there used to be no fence, but because Pakistan's armed forces let them.

Afghanistan's government, meanwhile, does not accept the Durand line and claims parts of north-west Pakistan, so it is unhappy with the fence. But Moeed Yusuf, Pakistan's national security adviser, says the fence will improve relations and even boost trade in the long run. The movement of fighters both ways has caused recriminations on both sides, he says: "This element of mistrust must be removed. The only way to do it from our view is ultimately to fence the border."

In practice, the biggest repercussions of the fence may be for the Pushtun tribes that straddle the frontier. They now need passports and visas to visit relatives. Mr Yusuf says Pakistan is handing out visas readily. Long-term multiple-entry permits will be common, he says: the border will be more like one in Europe than anything designed by President Donald Trump.

Mr Barakzai and his fellow applicants say they have yet to see any sign of that. They complain of long waits and sticky-fingered officials. As crossing becomes more laborious, some dispersed families are choosing to consolidate on one side or another. "It's just getting harder and harder," Mr Barakzai moans. ■

The rat trade in South-East Asia

Hamper scamper

TAKEO

Jobless Cambodians are catching rats to feed Vietnamese city dwellers

SLUNG OVER Pen Keo's shoulder is a big wicker basket containing wire-mesh traps, which he lays, one by one, on a rice field where rats are known to scamper. There are so many traps there already, it is difficult to find space for his. In Takéo, a rural province in southern Cambodia, rat-catching serves two purposes. The creatures would otherwise ravage crops, and can also be sold for tidy sums in neighbouring Vietnam. There rats nourished on a free-range diet of rice stalks and roots are a delicacy.

For a growing number of Cambodians, rat-catching is a full-time job. The covid-19 pandemic has hurt the formal economy. Unemployment is on the rise. The Asian Development Bank thinks that Cambodia, with a working-age population of 9m or so, lost around 500,000 jobs in 2020. Many who worked in the city have gone home to the countryside, but work there is scarce, too. Between January and April farmers' wages dropped by a third, according to Angkor Research and Consulting and Future Forum, a think-tank. Mr Pen Keo says he no longer earns enough from tilling his fields because rice is too cheap. Like many hard-up Cambodians, he has exchanged his plough for rat-traps.

Yet chasing tail, too, is no longer as profitable as it was. On a good day Mr Pen Keo catches 15kg, or about 130 of the pests. But whereas he used to get 6,000 riel ($1.48) for every kilo he caught, now he makes two-thirds of that. The slump in prices is being felt further along the supply chain as well. Ton, a rat-broker from Bourei Cholsar, the same district as Mr Pen Keo, now earns 50,000 riel a day, half what he used to get. Mr Pen complains of too much competition. Since April the number of rat-catchers in his village of 500 has doubled to 100, he says. The headman of the group of villages to which Bourei Cholsar belongs reckons that a third of locals now trap rodents.

Even as the supply of Cambodian rats has shot up, demand from Vietnam has tailed off. Officially, the border has been closed since March, making it harder to take the rats to market. Brokers have to pay off Vietnamese border guards and smuggle their catch across a river, risking fines and imprisonment. Another Cambodian catcher, Chhoeun Kha, suspects the pandemic has made Vietnamese less enthusiastic about eating rats, for fear they harbour diseases. It is not an absurd concern. A study conducted a couple of years ago in southern Vietnam found that 56% of field rats served in restaurants tested positive for a raft of coronaviruses.

Mr Chhoeun Kha would be heartened by the scene at Chuot Dong ("Field Rat"), a working-class restaurant on the outskirts of Ho Chi Minh City, in southern Vietnam. It does a roaring trade in field rats, which are butchered on the spot, marinated in garlic, chilies, lemongrass, and fish sauce, and then fried or delicately grilled. Giao and his colleagues eat there two or three times a week. For him, eating field rat is as normal as slurping up a bowl of noodles. "Whenever I see a fat rat on a grill," says Xuan, a colleague, "I cannot hold my saliva." But do they ever worry that the rodents will make them ill? "Sewer rats and house mice eat everything in the city, which is poisonous," says Giao. But field rats? They are perfectly safe, he insists.

Muslims in Sri Lanka

Unwanted, dead or alive

COLOMBO

The government is forcibly cremating Muslims who die of covid-19

OUTSIDE A HOSPITAL in southern Sri Lanka on December 22nd, a handful of Muslim men bowed their heads against the rain, chanting prayers as an unpolished coffin was loaded into an ambulance. They were given just minutes to pay their respects to the deceased, who, doctors said, had tested positive for covid-19. But that was not the most distressing part of it. Against the wishes of his family, his body was being rushed not to a cemetery, but to a crematorium.

Muslims make up nearly one in ten Sri Lankans. Their religiously ordained practice of burying the dead has rarely caused problems, even though the island's two biggest religions, Buddhism (the faith of some 70% of Sri Lankans) and Hinduism (13%) practise cremation. With the pandemic approaching last spring, the government issued guidelines that permitted burial of those infected provided the grave was at least six feet deep and the water table low enough not to get contaminated. However, when the disease claimed its first Muslim victim on March 31st, hospital workers defied the victim's family and had him cremated.

Soon afterwards, the health ministry issued new rules making it compulsory to cremate everyone who had died of covid-19—for the greater good. Burials attract crowds, it argued. Pro-government media also cited "experts" who claimed the virus could leech from bodies into the soil and contaminate groundwater. A government doctor warned that "unwanted persons" might gain access to a corpse and use it as a biological weapon.

The new rules prompted an outcry, not just from pious Muslims but from scientists, human-rights groups, diplomats and even the United Nations. Yet the authorities are unsympathetic. In December the courts dismissed a batch of petitions from Muslim families without explanation. The government has offered nothing more than a review of the policy by an unnamed "expert panel".

In the meantime, the forced cremations have continued. On December 9th a state-run children's hospital in Colombo, the capital, cremated Mohamed Shaykh, a 20-day-old baby, over the objections of his parents and despite questionable evidence that he had covid-19. The Shaykhs have declined to collect their son's ashes. Other Muslim families, too, have refused to sign ▸▸

cremation orders, to claim bodies from hospitals or to pay bills for cremation. One Muslim group has bought a refrigerated lorry to hold bodies until the government's review is completed. On December 28th officials are said to have forcibly removed five corpses from the lorry for cremation. More than a dozen are thought to remain.

Hilmy Ahamed of the Muslim Council of Sri Lanka claims that more than 80 Muslim victims of covid-19 have now been forcibly cremated. Muslim offers to bury the bodies in specially sealed concrete graves have been ignored, he notes. He blames anti-Muslim prejudice on the government's part. Such abrupt dismissal of Muslim concerns, he argues, is pushing young Muslims towards militancy.

Ironically, it was co-ordinated suicide bombings by Islamist extremists in 2019 that have heightened other Sri Lankans' suspicion of Muslims. The trauma of the bombings helped propel the double election victory of the Buddhist nationalist Rajapaksa family, with two brothers, Gotabaya and Mahinda, serving as president and prime minister respectively.

In a statement to Parliament a year ago, Gotabaya Rajapaksa promised to make sure Sri Lanka had only "one law for all the people". This has since become a slogan, widely repeated on social media. On December 29th a large crowd led by chauvinist Buddhist monks marched to the office of the president in Colombo and presented a petition arguing that allowing Muslim victims of covid-19 to be buried would violate the president's clearly stated policy. There cannot be religious laws for some, one prelate shouted: "After running the government so well for one year, will you ruin it all for a dead body?" ■

Banyan Dazed and Confucius

An ancient philosophy becomes a political punchbag

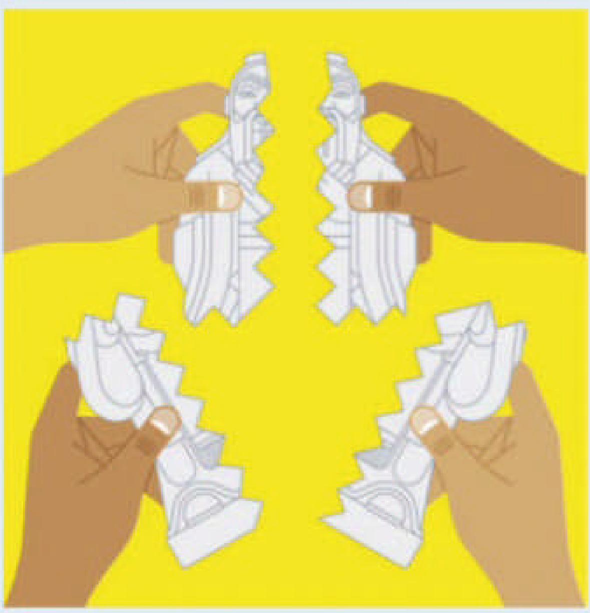
"CONFUCIAN LAND" is a cultural exhibition in the South Korean city of Andong. It first asks visitors to reflect on the horrors of contemporary society, including war, consumerism and sexual licence. It then invites them to travel through a "tunnel of time" to 16th-century Korea, when Confucianism was the official philosophy of the royal court. The Korea of yore is portrayed as a harmonious Utopia, save for the occasional battle against Japanese invaders. Virtuous conduct, imply the displays charting the daily life of a Confucian scholar in a humble village, underpinned perfect social cohesion.

Some observers, including both Koreans and foreigners, are inclined to attribute all the successes of contemporary South Korea to the lingering influence of Confucianism. Rapid economic development, the academic prowess of Korean students, even the largely successful curbing of covid-19—it is all thanks to the ancient Chinese system of thought imported to Korea two thousand years ago. Others go to the opposite extreme, blaming Confucianism for all manner of latter-day blights, including authoritarianism, sexism, stifling workplace hierarchies and entrenched corruption in industrial conglomerates.

To attribute all that is good or bad to Confucianism more than a century after it ceased to be Korea's official state ideology is, at best, absurdly reductive. Yet it is invoked in part because it remains so visible. Kwon Seok-hwan shows visitors around the school in Andong founded by Yi Hwang, the 16th-century Confucian scholar who graces the 1,000-won bill. He insists that Yi Hwang continues to be a role model, for his renunciation of worldly concerns in the pursuit of knowledge. Long-suffering pupils across the country are taught classical poetry and calligraphy, all with a Confucian bent. Confucian ceremonies to revere ancestors remain common practice among many Korean families.

Inevitably, Confucian tradition has taken on a political tint. "It's often used as a label whenever people want to praise or criticise society," says Kim Do-il of the Institute of Confucian Philosophy and Culture at Sungkyunkwan University (the successor to a Confucian academy set up in the 14th century). What people say about Confucianism often provides a clue to their contemporary political convictions.

One notable example is Park Chung-hee, a military dictator in the 1960s and 1970s, who redefined the Confucian virtues of filial piety and loyalty in a way that legitimised his authoritarianism, says Ro Young-chan of George Mason University. Park wanted citizens to identify with the state. In effect, he sought to create the "obedient Asians" of racist stereotypes, a trope that has resurfaced during the pandemic to explain more conscientious mask-wearing and social distancing in South Korea than in America or Europe.



Park is not the only one to have used Confucianism. Feminists invoke the term to grumble about women's outsize domestic duties, or the expectation that they will pour drinks for male friends. Twenty-somethings cite it when lamenting parental meddling in their personal affairs. Conservatives say that deference to elders and humility towards strangers are national traits based on Confucian values, which are sadly being eroded by modern ideas. One told your correspondent that Confucius wanted to live in Korea because its inhabitants were so polite—a claim that is hard to verify 2,500 years after the sage's demise.

But even if the invocation of Confucianism says more about the invoker's disdain for social convention or nostalgia for a non-existent past than about the tradition itself, that still reflects its enduring influence. Mr Ro of George Mason University argues that Confucianism forms part of South Korea's social subconscious, which leads people to assume (and chafe against) certain social norms even if they rarely think about their origins. "If you ask a random stranger in the street, they won't say they're Confucian," he says. "But they'll still be aware of certain expectations about how to behave—as a sibling, a child, an employee—which are connected to those ideas."

Mr Kim agrees that Confucian values are a living influence on Korean society. But they are increasingly in conflict with newer ideas about individual freedom, personal autonomy, sexual equality and the like. As elsewhere, sublimating disputes about how liberal a society should be into blanket reverence or disdain for "traditional values" does not make the underlying argument any easier to resolve.

Economic development

The fruits of growth

ZIYUN

Extreme poverty is history in China, officials say

Early in December China announced that it had eradicated extreme poverty within its territory. This achievement is breathtaking in scale. By the World Bank's estimate, some 800m people in China have escaped penury in the past four decades. It is a triumph for the ages, too, as state media have noted. Never before in the country's history has destitution come anywhere close to being eliminated.

One of the final places declared poverty-free is Ziyun, a county in the south-western province of Guizhou. "Speaking frankly, it's a lie," says Liang Yong, a gruff villager. The official investigation of Ziyun's economy was, he says, perfunctory. Provincial leaders popped into his village, rendered their verdict that it had left poverty behind and then sped off. "It's a show. In our hearts we all know the truth," he grumbles.

But a hard-headed observer would side with the government. Things are undoubtedly difficult for Mr Liang. Pork is pricey these days, so he eats meat just a couple of times a week. After paying his two children's school fees, he has little money left. To ward off the winter, he sits close to a coal-fired stove. He is poorer than many others in China, especially in its cities. He does not like to see victory over poverty being celebrated when he cannot afford proper medical care for his father, recently diagnosed with lung cancer. But the ability to scrape enough together for meat, education and heating marks Mr Liang as someone who has in fact left extreme poverty—a condition in which basic needs go unmet.

Sceptics understandably ask whether China fiddled its numbers in order to win what it calls the "battle against poverty". There are of course still isolated cases of abject deprivation. China, however, set itself a fairly high bar. It has regularly raised the official poverty line, which, accounting for living costs, is about $2.30 a day at prices prevailing in 2011. (By comparison, the World Bank defines as extremely poor those who make less than $1.90 a day, as roughly a tenth of human beings do. Poverty lines in rich countries are much higher: the equivalent line in America is about $72 a day for a four-member household at 2020 prices.) In 1978, shortly after Mao's death, nearly 98% of those in the countryside lived in extreme poverty, by China's current standards. By 2016 that was down to less than 5% (see chart on next page).

The government's biggest contribution was to pull back from central planning and let people make money. It decollectivised agriculture, giving farmers an incentive to produce more. It allowed people to move around the country to find work. It gave more freedom to entrepreneurs. It helped by building roads, investing in education and courting foreign investors. Its goal was to boost the economy; alleviating poverty was a welcome side-effect.

The government's approach changed in 2015 when Xi Jinping, its leader, vowed to eradicate the last vestiges of extreme poverty by the end of 2020. Officials jumped to it. They tried to encourage personal initiative by rewarding poor people who found ways of bettering their lot (see picture). ▸▸

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They spent public money widely. In 2015 central-government funding earmarked for poverty alleviation was an average of 500 yuan ($77) per extremely poor person. In 2020 the allocation per head was more than 26,000 yuan (see chart).

The imprint of the anti-poverty campaign is visible everywhere in Ziyun. The walls of government offices are covered in murals. One depicts a plant, labelled as the "roots of poverty", being yanked from the soil. Slogans dot the main roads—some admirably simple ("Let farmers make more money"), others lofty ("To help people out of poverty, first help them become wise").

One of the biggest challenges has been the terrain where the poor live. The 832 counties—about 30% of the country's total—that were designated as poverty-stricken when Mr Xi began his anti-poverty campaign were all mainly rural. Most were mountainous or on inhospitable land. Officials used two basic approaches to help these counties. Both are visible in Ziyun.

The first was to introduce industry—mostly modern agriculture. In Luomai, a village in Ziyun, the government created a 25-hectare zone for growing and processing *shiitake* mushrooms. About 70 locals work there. In the past their only options were either to migrate elsewhere or to eke out a meagre existence farming maize. But the *shiitake* are a cash crop, letting them earn about 80 yuan a day, a decent wage.

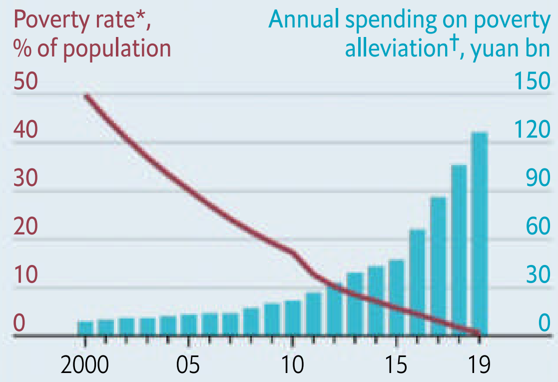
There is an irony in this. In the 1980s China broke up communal farms, letting people strike out on their own. Now the government wants them to pool their resources again. Officials often describe it as turning farmers into "shareholders". Residents get stakes in new rural enterprises, which, all going well, will pay dividends. Big outside companies are often placed in charge of the projects. The Luomai *shiitake* farm is run by China Southern Power Grid, a state-owned firm. But there is a risk that as the anti-poverty campaign fades away, some projects will fizzle.

The second approach to helping hard-up villages was more radical: moving inhabitants to better-connected areas. Between 2016 and 2020 officials relocated about 10m people. China has long moved people around on a huge scale to allow development—for instance clearing out homes to build dams. But in this case resettlement was itself the development project. The government concluded that it was too costly to provide necessary services, from roads to health care, to the most remote villages. It reckoned that moving residents closer to towns would work better.

A collection of tidy yellow apartment blocks sits in the centre of Ziyun county. It is a settlement for former inhabitants of a poor village some distance away. A frequent problem after moving people into such housing is finding work for them. In this case, the government called on local officials to arrange jobs for at least one member of each household. At the gate to the new compound in Ziyun, women hunch over sewing machines in small workshops. A middle-aged resident says she could not handle that work, so officials gave her a job in a sanitation crew. She is pleased with her new surroundings. There is a good school just across the street, which is far better for her child.

Helping the poor

China



*Living on less than $2.30 per day, at 2011 purchasing-power parity †By central government

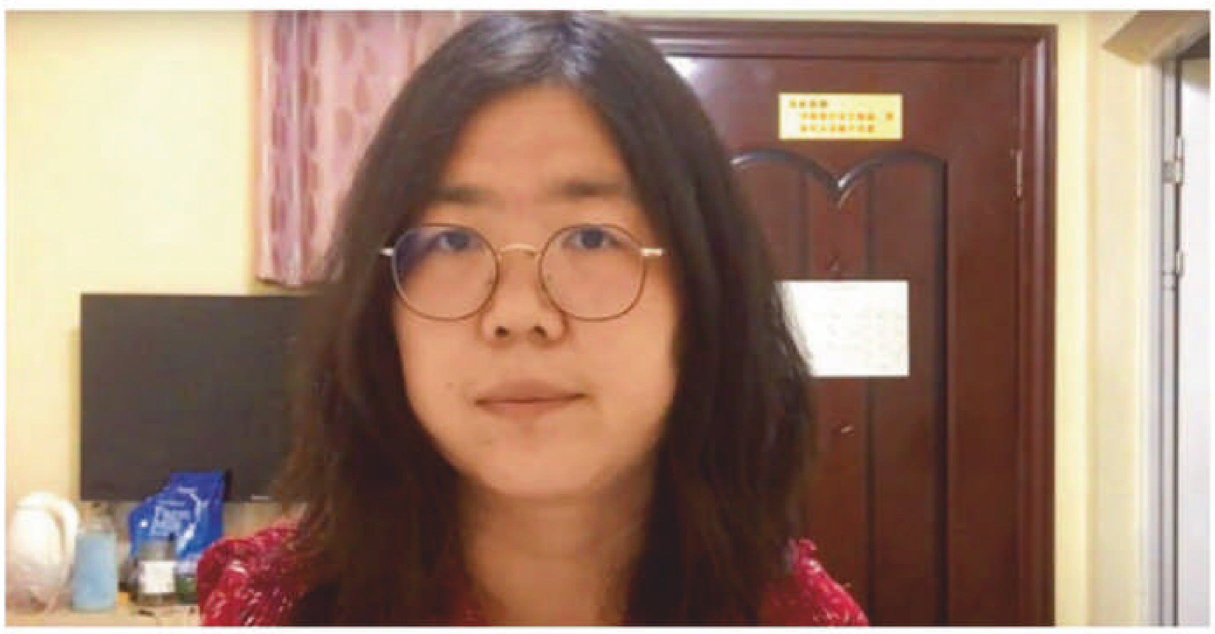
Sources: Wind; World Bank; national statistics

A bigger challenge is relative deprivation, a problem abundantly evident to anyone who has travelled between the glitzy coastal cities and the drabber towns of the hinterland. People may have incomes well above the official poverty line, but they can still feel poor. A recent study by Chinese economists concluded that the "subjective poverty line" in rural areas was about 23 yuan per day, nearly twice the amount below which a person would be officially classified as poor. That conforms with a standard used by many economists, namely setting the relative poverty line at half the median income level. It suggests that about a third of rural Chinese still see themselves as poor.

If poverty is calculated this way it becomes almost impossible to eliminate, since the poverty line steadily rises as the country gets richer. But one virtue of using a relative definition is that it better matches the way people feel. China does not count any poverty in its cities because welfare safeguards supposedly help those without money. But workers who have moved from the countryside lack the right documentation for ready access to urban welfare. And for any city-dweller, support is meagre. In relative terms about a fifth of China's urban residents can be classified as poor, according to a recent paper for the National Bureau of Economic Research by Chen Shaohua and Martin Ravallion.

To reduce relative poverty, China needs different tactics from the ones used in its campaign against extreme poverty. It would have to redistribute incomes, for example by imposing heavier taxes on the rich and making it easier for migrants to obtain public services in cities—policies for which it has shown little eagerness.

On the streets of Guiyang, the booming capital of Guizhou, hardship is still a common sight. Men walk with straw baskets strapped to their backs, looking for work as load-carriers. Zhou Weifu, a porter in his 50s, scoffs at the suggestion that poverty is over. "What kind of work is this? I can barely make any money," he says. China has every right to be proud of its victory over dire poverty. But officials would be wise to keep their celebrations muted. ■



Jailed for virus vlogging

In a video posted in February to YouTube, Zhang Zhan (pictured) insisted that people in China had the right to speak freely and monitor officials. She was reflecting on efforts by officials to silence those, like her, who had dared to report independently on the epidemic of covid-19 then engulfing the city of Wuhan. A court in Shanghai plainly disagrees. On December 28th it sentenced Ms Zhang, who has been on a prolonged hunger strike, to four years in prison for "picking quarrels and causing trouble".

Chaguan | Folk dances and labour camps

How China uses mass tourism to stifle Xinjiang's religious and cultural traditions

The Afaq Khoja mausoleum in Kashgar is one of the holiest places in Xinjiang, a region in the far west of China. The site is politically charged, too. Several 19th-century uprisings against Chinese rule began with rebels making a pilgrimage to the shrine, and its tomb of Afaq Khoja, a divisive figure revered by some locals as a Sufi Muslim saint, and scorned by others as a traitor. It is beautiful, with stately domes and minarets rendered as exquisite as a jewel box by tiles of green, blue, yellow and brown. To one side lies an ancient cemetery fringed with poplar trees. Its mud and brick tombs were capped with snow when Chaguan visited. As remote as it is lovely, the shrine lies closer to Baghdad than to Beijing.

Not all Muslim sites are as protected. In recent years China has worked to stamp out any hint of religious fervour in Xinjiang. Perhaps a million of the region's ethnic-Uyghurs have been accused of radical Islamic thinking and sent to re-education camps. Domes and minarets, deemed an "Arabic" import, have been removed from many buildings. An analysis of satellite images published in September 2020 by the Australian Strategic Policy Institute, a research group, estimates that over 8,000 mosques have been destroyed. That is one-third of all those recorded in Xinjiang by a census in 2004. Xinjiang's government insists that it has never "forcibly demolished" religious sites, and has merely improved old mosques that were unsafe in earthquakes or heavy rain, or "poorly laid-out". The claim is not hard to disprove. In the oasis city of Hotan, Chaguan saw the bare ground where the small Gulluk Kowruk mosque stood, and visited the corner of Wenhua and Taibei Roads, from which a larger mosque has simply vanished.

Officials have not demolished the Afaq Khoja shrine. Instead they are trying to neutralise its power as a place so sacred that pilgrims would collect dust from its grounds. Their tool: mass tourism by China's ethnic-Han majority. Their method is to link the site to Xiang Fei, or the "Fragrant Concubine". She was a Kashgar woman who, according to Chinese legend, enraptured the 18th-century Qianlong emperor with her mysterious natural scent, after being captured and delivered to his harem. Her story appeared in print in 1892 and inspired poems, operas and a television drama in the 1990s. Early accounts call Xiang Fei the wife (or daughter) of a descendant of Afaq Khoja. Drawing on Chinese traditions venerating chaste widows, they describe her resistance to the emperor, whom she planned to stab with tiny daggers hidden in her sleeves, and her death by execution. Anxious to promote ethnic unity, Communist-era writers insist that she loved the emperor and died of illness. For decades a sign has marked her supposed tomb at the Afaq Khoja shrine. Imperial archives record a simpler tale: a Kashgar woman who became the emperor's consort and is buried near Beijing, notes Rian Thum of Loyola University in New Orleans, in his book "The Sacred Routes of Uyghur History".

Unfussed by historical details, officials opened a tourist park called Xiang Fei Garden in 2015. At its far northern end lies the mausoleum, relabelled "Fragrant Imperial Concubine's Tomb". Signs point tour groups towards Uyghur folk-dance shows and praise "soft and humble" Xiang Fei. Her purported love for China's emperor is called a symbol of "the reunification of the motherland". Pilgrims are discouraged by the gates and guards that surround public buildings in Xinjiang. Outside the shrine's perimeter, Chaguan saw an old man scooping dust into a bag, but did not ask why. It is unsafe for Uyghurs to speak to foreign reporters. The same unmarked Volkswagen followed your columnist all day.

It is not just mass tourism that is changing Kashgar. The city's old town has been largely rebuilt since 2009, with adobe-walled alleys levelled to create earthquake-proof, tourist-friendly streets lined with kebab stalls and handicrafts shops. A more recent trend has seen an influx of Han hipsters and artistic types bent on turning Uyghur traditions into profit. Oppressive security, involving cameras and police checkpoints at every turn, does not deter them.

Chaguan met a young photographer from Dali, a city in southern China, taking wedding pictures of a Han couple in Uyghur robes. The couple wanted a "special ethnic look", his helper explained. Nearby, on Baishiairike Alley, a café called Zebra Commune was opened in 2019 by a couple from the south-western city of Chengdu. A post on Dianping, a review website, enthuses: "I'm so pleased a shop is finally doing southern Xinjiang culture right." In a video blog the co-founder, Wang Li (who prefers the name Mrs Zebra), shows off herbal teas sold in the café's carpet-bedecked halls, as well as a narrow tower she calls her little secret place. More jarringly, a posting by her husband, "Mr Zebra", admits that, when they first arrived, bicycles outside their café had tyres slashed, and excrement was left on their steps. He ascribes this to "misunderstandings" caused by "the unique nature of the space".

A colony by any other name

That is an understatement. Zebra Commune is a former mosque, its quaint tower a minaret with its crescent moon knocked off. Photographs from 2014 show a bustling place of worship, with a dozen people praying on rugs outside. The café recently closed, prompting dismay from a Kashgar official who praised the couple online for investing so much work in the business. Another ex-mosque, in Areya Road, was a bar until it closed in October, hit by a covid-induced lull in tourism. Online, Chinese travellers praise its generous measures of alcohol. A public lavatory, labelled "Tourist Toilet", fills much of the ground floor.

Asked where a prayer service might be found, a man named the city's largest mosque, the Idh Kah, then hurried off. An unscientific survey of the old town found six mosques locked shut, with dead leaves and other debris littering their courtyards. Several had lost domes, minarets and crescent moons. Strolling tourists could easily miss their former purpose. Many might not care. To smother a culture, it turns out, tour buses are as effective as bulldozers. ■

→ Also in this section

Conflict in the Horn

The widening war

ADDIS ABABA

Ethiopia says the conflict in Tigray is an exclusively internal matter. It is not

First come muffled sobs, gradually growing louder with each new voice that joins the chorus. A woman in a black shawl begins to wail, her body rocking towards the portrait of a smiling young man in the middle of the room. Abraham was 35 years old when he was shot, says an older brother who is hosting mourning relatives on the outskirts of Addis Ababa, the Ethiopian capital. Last month armed men arrived at the family home in Adwa, a town in the northern region of Tigray. By then many of the town's residents had fled, but not Abraham, who had a young child and a sick, ageing father. When the gunmen tried to steal two of the family's trucks, Abraham resisted. He was shot dead on the spot, in front of his father.

According to his family, Abraham's killers were from Eritrea, a neighbouring country whose troops have been fighting alongside Ethiopian government forces against the recently-ousted rulers of Tigray. There is little reason to doubt their claim. Although phone lines to Adwa have been cut since the fighting started in early November, they know what happened to Abraham from a family friend who met his father, as well as neighbours who escaped to Mekelle, the regional capital.

Abiy Ahmed, Ethiopia's prime minister, has consistently denied enlisting the help of soldiers from Eritrea, the gulag state next door. But Abiy's denials ring hollow in the face of a growing number of claims like those of Abraham's family, as well as by foreign diplomats and governments. In December America said reports of Eritrea's involvement were "credible" and urged it to withdraw. Belgian journalists who made a rare trip into Tigray found video footage apparently showing an Eritrean tank loaded with plunder.

Exposing Eritrea's involvement matters because both governments have gone to such lengths to deny it. Abiy told António Guterres, the secretary-general of the UN, that no Eritrean soldiers had entered Ethiopia. His government says Tigray's now-renegade ruling party, the Tigrayan People's Liberation Front (TPLF), made fake Eritrean uniforms to spread misinformation. Eritrea's foreign minister told Reuters that Eritrea was not a party to the conflict.

Others say that Eritrea's involvement is not only real but highly significant. It won independence from Ethiopia in 1993. The two countries fought a bloody border war in the late 1990s followed by two decades of low-level conflict that ended with a peace deal in 2018 (for which Abiy won the Nobel peace prize in 2019). Much of the fighting was along Tigray's border, leading to bitter enmity between Eritreans and the TPLF.

This bitterness may explain the destruction that Eritrean forces have left in their wake. They are accused of killing civilians, looting, laying waste to farmland ▸▸

and abducting some of the 100,000 Eritrean refugees who had fled their own totalitarian government and sought safety in camps in Tigray.

Using foreign troops to fight a war on his own soil besmirches Abiy's reputation and will complicate efforts to pacify Tigray. "The government will never admit it," says an Ethiopian analyst. "Because they know they could never justify it to the Tigrayans."

Awet Tewelde Weldemichael, an Eritrean academic at Queen's University in Canada, says that in recent weeks there seems to have been a phased withdrawal of Eritrean troops. If true, it might suggest Abiy has had enough of them. Or it might mean that Issaias Afwerki, Eritrea's dictator, is confident that his old foes in the TPLF have been routed. Although fighting is reported to be continuing in several parts of Tigray, the TPLF leadership—thought to be holed up somewhere in the mountains—has been mostly silent for weeks. On December 18th the Ethiopian government offered a reward worth the equivalent of $260,000 for information on their whereabouts.

It is not just Eritrea that has a stake in Ethiopia's civil war. Clashes between Sudanese forces and militias from Amhara, a region to the south of Tigray, have turned deadly in recent weeks. They are fighting over a large slice of fertile farmland that is within Sudan's borders but long occupied by Amhara farmers. Shortly after the war began in Tigray, Sudanese troops moved into positions that had previously been held by the Ethiopian army. Since then each side has accused the other of upping the ante. On December 22nd Ethiopia's deputy prime minister accused Sudanese forces of looting. Sudan's information minister countered by accusing the Ethiopian army of taking part in border attacks. Talks and a visit to Addis Ababa in December by Abdalla Hamdok, Sudan's prime minister, have failed to resolve the matter.

These tensions are unlikely to blow up into a full-scale war between the two states. But if the border conflict is not resolved, Sudan could prolong the fighting in Tigray by, for instance, turning a blind eye to arms and other supplies crossing the border. That would be a headache for Abiy, whose forces are already overstretched trying to locate the TPLF's guerrilla forces while also battling armed insurgents and quelling inter-ethnic fighting elsewhere in the country.

On December 23rd more than 200 civilians, mostly Amharas, were massacred by heavily armed ethnic militiamen in the western region of Benishangul-Gumuz. Similar incidents have been reported in western Oromia in recent weeks. Ethnic Somalis and Afars in the country's east are also trading deadly blows. Ethiopia, already a tinder box, risks igniting a wider conflagration across the Horn of Africa. ■

Repression in Uganda

An undemocratic vote

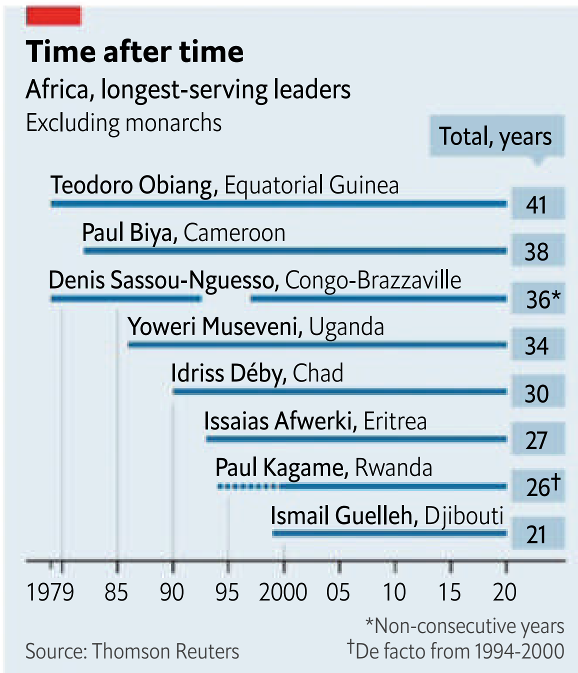
KAMPALA

The government is trying to crush the opposition ahead of elections

OPPOSITION CANDIDATES are arrested, crowds dispersed with tear-gas and bullets, campaign meetings in the capital banned. A leading human-rights lawyer is behind bars. The state kills scores of protesters and attacks journalists. And on January 14th Ugandans will vote for a president.

Authoritarian habits are ingrained in the institutions of the Ugandan state. Even so, this election will probably be the most violent since Yoweri Museveni fought his way to power in 1986. His regime is rattled by an opposition candidate, Bobi Wine, a pop star and politician who has become an avatar of youthful discontent.

Mr Museveni is one of Africa's longest-serving presidents (see chart). Yet the 76-year-old has no intention of retiring—or of being beaten in a fair race. Uganda's electoral commission has limited crowds at rallies to 200 people because of covid-19. On December 26th it banned any campaign meetings in the capital, Kampala, and in 15 districts for health reasons. This is bad for Mr Wine, as his message, like the virus, spreads fastest in crowded urban centres.



In March he sang that people should "keep a social distance". Now he addresses ▸▸

Saudi Arabia

Wheels of injustice

Jail for a campaigner to allow women to drive

IF LOUJAIN AL-HATHLOUL is guilty of trying to harm national security and advance a foreign agenda, as a Saudi court found on December 28th, then what about Muhammad bin Salman? For Ms Hathloul merely campaigned to end the ban on woman drivers in Saudi Arabia. Prince Muhammad, its de facto ruler, actually lifted the ban in 2018, not long after Ms Hathloul was detained.

The kingdom denies that Ms Hathloul was arrested just for her driving campaign, which included an attempt in 2014 to motor from the United Arab Emirates to Saudi Arabia (leading to an earlier stint in prison). Rather, her offence was trying to undermine the royal family by, among other things, speaking to international human-rights groups and foreign journalists. The original charge sheet noted, absurdly, that she mentioned her arrest in her cover letter when applying for a job at the UN and that she had also spoken to European diplomats. In the end she was sentenced to five years and eight months in prison.

The court suspended much of that sentence, and backdated the start of her jail term, so Ms Hathloul will serve only three more months. But, according to her family, she has already suffered immensely. In 2018 she was kidnapped by Emirati security forces in Abu Dhabi, where she was studying, and taken back to Saudi Arabia, where she was later arrested along with other activists. She was tortured, says her sister.

Prince Muhammad styles himself a reformer who empowers Saudi women. But he gets annoyed when his subjects demand rights. He is as prickly as he is ruthless—and also rather inept. Ms Hathloul was a prominent activist before her latest arrest; now she is even more famous, a cause célèbre in the West. Prince Muhammad's lifting of the driving ban and other reforms have largely been overshadowed by his repression.

In this case, at least, foreign outrage may have swayed the prince. The kingdom seems to have waited to sentence Ms Hathloul until after it finished hosting the G20 summit. It dropped the charges relating to her contact with European embassies. And her release will come soon after Donald Trump, an enabler of autocrats, leaves the White House. Joe Biden, the president-elect, has promised to reassess America's relationship with the cruel kingdom.

crowds of fans, who have become blasé about the disease. Uganda, with the second-youngest population in the world, has registered just 250 covid-19 deaths. Mr Wine is more worried about bullets, like the one that police fired through his windscreen in the eastern city of Jinja. On December 27th, he says, an army truck struck and killed one of his bodyguards; the army says he fell from a car. The next day another opposition candidate, Patrick Oboi Amuriat, was pepper-sprayed by a policeman.

The worst violence was back in November, when Mr Wine was briefly detained for violating covid-19 guidelines. Unruly protests broke out in several towns. Police, soldiers and plainclothes gunmen shot dead at least 54 people; more than a thousand were arrested. Mr Museveni later said that it was legitimate to fire at stone-throwing civilians, even if, on his own count, only 32 of those killed were actually "rioters". He has since put a son back in charge of Special Forces Command, a feared army unit, in a sign that the hardliners are on top.

Meanwhile journalists following Mr Wine have been tear-gassed, beaten and targeted with rubber bullets. Ali Mivule, a cameraman, says a police commander shouted "collateral damage" before firing a tear-gas canister at his leg on December 27th. Ashraf Kasirye, another cameraman on the scene, was shot in the head and rushed to hospital. He works for Ghetto TV, one of several online outlets that back Mr Wine; the communications regulator has asked Google, so far in vain, to block these channels' YouTube accounts. A team from Canada's CBC has been kicked out of the country. Foreign journalists have been stopped from entering at the airport or stymied by ever-changing accreditation rules.

Local NGOs are under threat, too. In October authorities shut down National Election Watch Uganda, a coalition of groups planning to observe the elections. The bank accounts of two of its members were frozen for "financing terrorism". On December 22nd gunmen burst into a restaurant where Nicholas Opiyo, a leading human-rights lawyer, was meeting three colleagues and one of Mr Wine's campaigners. They were handcuffed, blindfolded and driven away. Mr Opiyo is still being held, charged with money-laundering. Escalating repression may test relationships with Western governments. An American official says the "shrinking of political space" could have "negative ramifications" for future aid and security assistance.

"In previous elections we would see violence either a few days before the polling date or after," says Crispin Kaheru, an activist. "This time the violence came early." The opposition is bound to accuse Mr Museveni of fiddling the vote count. But he may not need to, since he has made it so hard for his opponents to compete at all. ■

Israeli politics

Sa'ar wars: a New Hope

JERUSALEM

Israel will hold yet another election. This time Binyamin Netanyahu faces a challenge from the right

FOR 15 YEARS Binyamin Netanyahu has been the undisputed leader of the Israeli right. In 2009 he guided his nationalist Likud party to power, becoming prime minister. He has held the office ever since. Challengers from the centre and left have tried mightily, and failed, to unseat him. They pose little threat as Israel gears up for an election on March 23rd. Now, though, Mr Netanyahu (pictured, left) faces a challenge from former allies on the right.

The election was triggered by the failure of the Knesset (Israel's parliament) to pass a budget by a deadline on December 23rd. Mr Netanyahu had ordered the finance minister, a member of Likud, to take his time preparing the budget. This was a political move—an effort to time the government's collapse for when the polls looked best for the prime minister. But enough MPs were fed up with his manoeuvring that they were able to block any more delays.

It will be Israel's fourth election in two years. The previous three ended in draws. The stalemate was broken only when Benny Gantz, the leader of the centrist Blue and White party, agreed to share power with Mr Netanyahu. Mr Gantz was to take over as prime minister in November 2021, though many Israelis doubted that Mr Netanyahu would honour the deal, which is now dead. Both leaders urged their members to vote for extending the budget deadline and preserving the coalition, largely because they fear the electoral threat posed by Gideon Sa'ar (pictured, right).

Mr Sa'ar resigned from the Knesset and left Likud in December. The former education minister had previously challenged Mr Netanyahu for the party's leadership, and lost badly. Now he has his own party, New Hope, which is drawing other Likud defectors. The urbane lawyer, a DJ in his spare time, is at home in the liberal circles of Tel Aviv. But make no mistake, he is a man of the right. He backs West Bank settlements and wants to reform a judicial system perceived by some as having a liberal bias. On ideology he hardly differs from Mr Netanyahu, whom he once served as cabinet secretary.

Mr Sa'ar rails, however, against the "cult of personality" that Likud has fostered around the prime minister. The party, he says, has become "a tool" to serve Mr Netanyahu's interests, "including those related to his criminal trial". Mr Netanyahu has been charged with bribery, fraud and breach of trust stemming from three corruption cases. Replacing him is "the order of the hour", says Mr Sa'ar, who also supports limiting the tenure of prime ministers to eight years (Mr Netanyahu has served for 11 years straight and 14 in total). New Hope has soared in the polls.

Two other parties led by erstwhile allies of the prime minister—Naftali Bennett and Avigdor Lieberman, both former defence ministers—are expected to do well. Mr Sa'ar will probably cut into their support, but together they may draw enough nationalist and religious voters, Mr Netan-

I find your lack of faith disturbing

yahu's base, to deny him the share he needs to stay in power. Israel's centrist and left-wing parties would probably join a coalition led by Mr Sa'ar if it meant getting rid of Mr Netanyahu.

The centrist and left-wing parties stand little chance on their own. Labour, the party of the state's Zionist-Socialist founders, will be lucky to win a handful of seats. Mr Gantz, meanwhile, largely discredited himself by joining Mr Netanyahu in government after promising voters he would not. The centrist ex-general claimed he had to so that the country could fight covid-19. But most voters think he was outwitted by the prime minister.

Mr Netanyahu, for his part, hopes at last to gain a majority that may grant him immunity from prosecution. His popularity has plummeted thanks to his government's shoddy handling of covid-19 and its effect on the economy; polls show him and his allies falling short of a majority. But they also show Mr Sa'ar with a difficult path to forming a government without Likud. "Under no scenario will I join a government led by [Mr Netanyahu]," says Mr Sa'ar.

Is more stalemate in the offing? On December 27th Israel became the first country in the world to enter a third nationwide lockdown to stop the spread of covid-19. But 500,000 Israelis, 6% of the population, have already received the first dose of the vaccine. Israel is moving faster than most of the world. Mr Netanyahu, who on December 19th became the first Israeli to get the jab, is hoping the vaccination drive will also give his campaign a shot in the arm. ■

Algeria

Home at last

CAIRO

A sick president returns to an ailing country

LITTLE IS KNOWN about Abdelmadjid Tebboune's bout with covid-19. For nearly two months beginning in October, Algeria's 75-year-old president, a heavy smoker, disappeared from public view after travelling to Germany for treatment. On December 13th, amid swirling rumours about his health, Mr Tebboune's men posted a proof of life: a five-minute video in which the visibly thinner president pledged to come home soon. At last, on December 29th, he did return, looking as if he had regained the weight. Mr Tebboune is "nearing complete healing", state media reported, citing a brief statement from the president.

For a man trying to turn the page on the autocratic presidency of his predecessor, Abdelaziz Bouteflika, the omens are not good. The government also concealed the poor health of Mr Bouteflika, a wheelchair-bound octogenarian who suffered at least one stroke while in office. Mass protests toppled him in 2019, but they did not dislodge the old elite. Later that year Mr Tebboune (pictured) was elected in a poll contested by only a handful of regime insiders and shunned by most Algerians. The *hirak*, the country's leaderless protest movement, boycotted the vote.

The protesters saw the election as an effort to silence them while changing little. They insist on removing the generals, businessmen and politicians who have long ruled from behind the scenes and siphoned the country's hydrocarbon wealth. Mr Tebboune, a former prime minister, was widely viewed as the choice of Ahmed Gaid Salah, the army chief. Two weeks after Mr Tebboune's election, in December 2019, the general suffered a fatal heart attack.

So Mr Tebboune tried to shore up his legitimacy with a constitutional referendum. In November Algerians approved amendments that reinstated presidential term limits and granted new powers to the executive and to parliament. But the turnout (23%) was the lowest in any poll since the country's independence from France in 1962. The changes did little to assuage the *hirak*. Protests, suspended in March as covid-19 spread, are likely to resume once the state's public-health restrictions are lifted. "When life returns to normal there will be a lot of Algerians heading back to the streets," says Samir Belarabi, an activist.

Critics of the government have good reason to doubt Mr Tebboune's promise of a "new Algeria". The constitution pays lip-service to freedom of speech, but the number of political prisoners is rising, say activists. In December prosecutors recommended a five-year prison sentence for Walid Kechida, who started a Facebook group featuring pro-*hirak* memes. Government censors have banned a growing number of websites. A new law will increase state control over online media by requiring news sites to obtain a licence and be hosted inside the country. Journalists say the government has not been this repressive since the 1990s, when dozens of them were murdered during a bloody civil war.

Yet the biggest threat faced by Mr Tebboune is the crumbling economy. A covid-induced plunge in the global demand for oil has caused Algeria's revenue from it to fall by a third. In response, the government halved its budget. It has so far not cut the subsidies that make food, housing and fuel cheap, but that may be unavoidable. Foreign reserves have fallen from nearly $200bn in 2014 to about $44bn. Algeria's dinar lost about 20% against the euro in 2020. UNESCO has declared the currency a heritage object at risk of disappearing, quipped a satirical news site.

The government's only plan appears to be to hope for oil prices to rise. Mr Tebboune has pledged not to accept an IMF programme, in keeping with the government's long-held fear of foreign interference. But an increasing number of Algerians are seeking salvation overseas. In the first nine months of 2020, 50% more of them crossed the water to Spain compared with all of 2019, according to UNHCR. Winter usually means fewer crossings. But in 2021 many more are likely to risk them. ■

Puff, puff, prez

Germany after Merkel

Tough act to follow

BERLIN

With Angela Merkel preparing to step down, German politics are growing wobbly

"WHAT A PRESIDENCY it has been!" After a gruelling all-night EU summit in mid-December, Ursula von der Leyen, the head of the European Commission, reserved her biggest smile for Angela Merkel, Germany's chancellor. The summit, at which the EU's leaders found agreement on a number of tricky issues, capped Germany's six-month presidency of the EU Council, which it will hand over to Portugal on January 1st. It may also prove to be the high-water mark of Mrs Merkel's final term in office.

One year ago Mrs Merkel was starting to cut a diminished figure. Having promised not to stand for a fifth term, she buried herself in foreign policy while the scrap to succeed her began to consume domestic politics. Her centre-right Christian Democratic Union (CDU) was below 30% in polls, riven by squabbles that forced Annegret Kramp-Karrenbauer, Mrs Merkel's presumed heir, to quit as CDU leader. The chancellor's succession plans lay in tatters.

Two things changed the mood. The first was the pandemic, which thrust Mrs Merkel onto centre-stage again. In a televised address on March 18th she grabbed Germans' attention by describing the novel coronavirus as the country's greatest challenge since 1945. More recently, as Germany battles a deadlier second wave, she has delivered impassioned pleas in parliament to lock down harder and faster (the constitution reserves such powers to the states). Germany's early success in keeping deaths down, its strong fiscal response and Mrs Merkel's calm bearing restored her fortunes. She now basks in approval ratings of over 70%, and her party's standing has rocketed (see chart on next page).

Then came the EU Council presidency. As the strains of covid-19 tested Europe's bonds, Mrs Merkel broke the German taboo against common debt and agreed to a €750bn ($916bn) EU-wide fund to aid recovery in 2021 and beyond. She later persuaded the troublesome governments of Poland and Hungary to sign on to new rule-of-law provisions in the EU's budget rules, and helped arrange a tightening of the EU's climate targets. December brought more success: having avoided a no-deal Brexit, the EU looked set, as *The Economist* went to press, to agree on the outline of an investment deal with China. That is a prize long sought by Mrs Merkel, though it irks Europe's growing band of Sinosceptics and the incoming Biden administration.

Little wonder Jens Spahn, Germany's health minister, says that voters have failed to register that the chancellor is on her way out. Yet as the EU presidency and the worst phase of the pandemic recede into the past, Mrs Merkel's star may fade faster than expected. In 2021 a series of political events will build towards the general election in September, reminding voters that the Merkel era will soon be over.

The first is the election of a new CDU leader at a virtual party congress on January 16th. The three men standing for the job see it as a stepping-stone to the chancellery. Yet the campaign has been dispiriting, and not only because covid-19 postponed the voting twice. The debates have been platitudinous, and CDU grandees appear to fear that too vigorous a contest over the party's post-Merkel future might expose hard-to-heal divisions just months before an election campaign.

None of the three has captured the imagination of the party's supporters. The ▸

→ Also in this section

periodic outbursts of Friedrich Merz, a flinty tax-cut advocate, excite the CDU's conservative base but worry moderates who know German elections are won from the middle. Armin Laschet, the bland if jovial leader of North Rhine-Westphalia, Germany's most populous state, has no obvious pitch beyond Merkellian centrism; his poll numbers have nosedived. Norbert Röttgen, a foreign-policy expert once sacked by Mrs Merkel, was originally written off. A lively campaign appealing to women and the young has put him into contention, but he remains an outsider.

Some CDU figures grumble more or less openly that Mr Spahn, who has handled the pressures of his job well, is better suited to leadership than Mr Laschet, to whom he has pledged fealty. Many also gaze longingly towards Bavaria and Markus Söder, its charismatic premier and head of the Christian Social Union (CSU), the CDU's sister party. The larger CDU would normally expect a decisive say when the two parties pick a joint candidate for the chancellorship, probably in the spring. But a string of confident performances during the covid crisis have transformed Mr Söder into one of Germany's most popular politicians. His denials of interest in the top job have failed to stop the question from being asked.

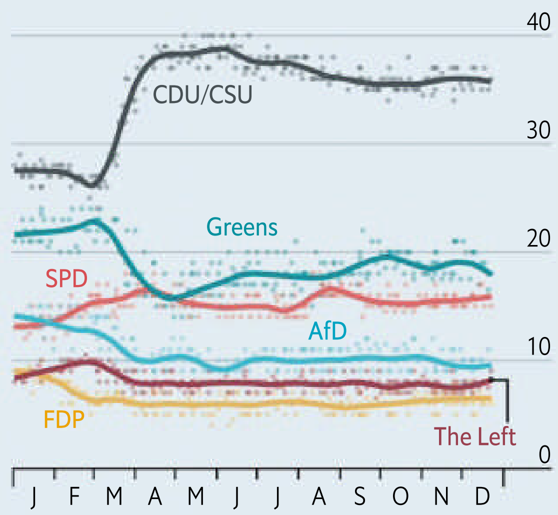
All this leaves the CDU with a problem. Of the three most popular conservative politicians in Germany, one (Mrs Merkel) is retiring; another (Mr Spahn) is holding fire; and a third (Mr Söder) claims to have no further ambitions. The three men seeking to run the CDU, meanwhile, languish an embarrassing distance behind. Whether Mr Spahn and Mr Söder can keep their ambition in check remains to be seen. But the CDU's uncomfortable position will concentrate minds among the 1,001 party delegates charged with choosing their next leader.

All sides acknowledge that the CDU/CSU's strong polling conceals a large "Merkel-bonus" that will largely expire before the election. It will be easier to see how big it is once the party picks a new leader. The ascendant Greens, who briefly overtook the CDU/CSU in 2019, hope to soak up some centrist votes, particularly if Mr Merz wins in January. So does Olaf Scholz, the mild-mannered finance minister and vice-chancellor, who will lead the Social Democrats (SPD) into the election. But his early consecration as chancellor-candidate has so far failed to lift his party's dismal ratings.

Germany's parties will also compete in five state elections in 2021. Two in Germany's east may test the CDU's firewall against co-operation with the hard right Alternative for Germany. But the most significant, in March, will be in Baden-Württemberg, a rich southern state led by the Greens in coalition with the CDU. That arrangement may prove a dry run for a national coalition, but with the CDU/CSU as senior partner. Both parties are visibly preparing for such a "black-green" coalition, but a head-spinning array of other configurations are possible in what is set to be Germany's most unpredictable election in decades. Mrs Merkel prizes stability above almost all else, but there will be less and less of it as she prepares to relinquish the country's leadership. ■

The corona effect

Germany, voting intention, 2020, %



Source: National polls

The Brexit deal

How was it for EU?

For Europe, the deal makes the best of a bad business

Feeling gutted

When the trade deal between the EU and Britain was done, there was little celebration in Brussels. Instead, the moaning began. "This is a dark day for the European fishing industry," declared Gerard van Balsfoort, chairman of the European Fisheries Alliance, a lobby group for fishermen. Indeed, conflict over matters piscatorial dominated the final stages of the negotiations, leaving economists flabbergasted that such a tiny sector could hook so much attention.

Yet there is more to life than mackerel. On the whole, the EU is content if not happy with how things turned out. From the union's perspective, it was important that Britain's departure was orderly; that it left Britain with worse trading access than the status quo; and, consequent to that, that it removed any temptation for other countries to follow the Brexiteers out. The EU has a good claim to say it managed all three.

Britain's exit followed a rigid process dictated by the EU. Although the Vote Leave campaign had pledged not to use Article 50, the official process for leaving laid out in the EU's founding treaty, the British ultimately triggered it. (EU officials privately claimed credit for goading them to do so.) Negotiations took place according to the EU's schedule. The remaining 27 member states were not divided, which back in the mists of 2016 had been a worry for diplomats. The things the EU cared most about were dealt with in both the withdrawal agreement reached last January (which sorted out citizens' rights, the Irish border and how much money Britain owed the union) and the trade agreement reached over Christmas (where a deal was struck over EU fishing rights in British waters, despite griping from Mr van Balsfoort's constituents). By contrast, big British interests, such as the rights of the country's enormous financial sector to do business in Europe, have still to be decided.

To anyone not obsessed with romantic notions of sovereignty, it is clear that the deal leaves Britain worse-off than with EU membership. European officials distributed graphics explaining what Britain would miss, ranging from the big stuff (financial passporting for banks, Britons losing the right to live and work in 27 countries) to the small (no more pet passports, no guaranteed cheap mobile-phone roaming). In public, officials made clear that the negative effects of Brexit were the inevitable consequence of leaving the bloc. In private, they spoke of the need to drive Britain's face into the mud. The EU does not want a successful rival on its borders, and the threadbare deal agreed will not help Britain become one. After the four years of political chaos during which Britain laboured to extricate itself, Euroscepticism in other EU countries has gone off the boil. The British showed that there is a path for anyone wishing to leave the union. But it is costly, arduous and leads to a backwater.

Brexit is still bad for the bloc, even with a deal. Given that its claim to being a superpower relies on its economic clout, watch- ▸▸

ing GDP equivalent to 18 of its 27 countries walk out of the door is not good. About a quarter of EU defence spending went as well. The fact that it was on amicable rather than chaotic terms only slightly sweetened the pill. Instead, Britain joins the club of the EU's awkward neighbours. The deal provides a rather wobbly foundation for a new relationship between Britain and the continent (see Britain section). As a result, the EU faces years of tweaks to its relationship with a country whose population is nearly eight times that of Switzerland, with which it has similarly frustrating ties.

Brexit is not an existential concern for the EU, as some feared it would become. The EU will enjoy a strained relationship with a neighbour too small to worry much about, but too big to ignore. Given that the EU is seven times the size of Britain, it should be able to handle it as it does the rest of its fragile frontier. But it is a problem the union, surrounded by instability on its borders from north Africa to Turkey to Russia and challenged from within by democratic backsliding in Hungary and Poland, would rather not have. When it comes to Brexit, there is no such thing as a good deal for the EU. ■

Russia's secret police

Caught with their pants down

Alexei Navalny exposes the agents who tried to kill him

STAY ABROAD or rot in jail. That was the choice Vladimir Putin offered this week to Alexei Navalny, the opposition politician currently in Germany recovering from an attempt by Russian security agents to assassinate him last August. The new threat was delivered by Russia's federal prison agency, which accused Mr Navalny of violating a probation period imposed as part of a trumped-up embezzlement conviction in 2014. It was an obvious sham: the probation period expired on December 30th, but on December 28th Mr Navalny was ordered to attend a parole hearing in Moscow at 9am the following morning, or trigger a suspended sentence of three and a half years.

The following day, Russian authorities launched a new and larger embezzlement case against Mr Navalny. He remained unfazed. "Putin desperately does not want me to return to Russia," he told *The Economist*. "I am planning to do what I always said I would do: come back."

The prospect of Mr Navalny returning ahead of parliamentary elections in 2021 has worried the Kremlin ever since September, when he emerged from a coma after collapsing during a flight over Siberia in August. He had been evacuated to Berlin, where doctors determined he had been poisoned with novichok, a Russian military nerve agent. Since then he and his allies have been busy. On December 14th Mr Navalny's team, along with Bellingcat (a digital forensics group) and the Insider (a Russian investigative outfit), published a joint investigation into the plot to kill him. It included the names and movements of a team of agents of the FSB, a state security agency, who had trailed Mr Navalny since 2017, when he said he would run for president. Using passenger lists, mobile-phone pings and other data, much of it acquired on the dark web, the investigation showed that FSB agents with ties to chemical-weapons facilities had been near Mr Navalny when he was poisoned.

Mr Putin was forced to admit that FSB agents had followed Mr Navalny, but claimed they did so because he had ties to the CIA. There was more to come. On December 21st Mr Navalny released a video of himself telephoning one of his alleged would-be assassins: Konstantin Kudryavtsev, a chemical-weapons specialist with the FSB. Mr Navalny used software that made the call appear to be coming from inside FSB headquarters, and posed as an assistant gathering information for the head of Russia's national security council. The hapless agent spent 49 minutes explaining how the operation had gone wrong. Pressed for detail, Mr Kudryavtsev explained that the poison had been applied to Mr Navalny's underpants. "On the groin area?" Mr Navalny inquired. "Well, the so-called codpiece," the agent answered.

Within hours, the video of Mr Navalny's conversation had 7m views on YouTube. Blue men's underpants became a political meme. Several Russian activists, including Vitaly Mansky, a well-known documentary director, turned up in front of FSB headquarters demonstratively holding out pairs of blue briefs. They were promptly detained for employing "visual means of propaganda and agitation".

Mr Navalny's videos have confirmed what Western governments said from the start: the FSB was behind the assassination attempt. But more important is the political impact inside the country. The videos have shredded the agency's image as an efficient secret order untouched by the country's corruption and professional degradation—a myth first cultivated by the FSB's predecessor, the Soviet KGB. That myth, notes Kirill Rogov, a political analyst, was skillfully exploited by Mr Putin, a former KGB operative, when he first presented himself to the Russian public as an antidote to the chaos of the 1990s.

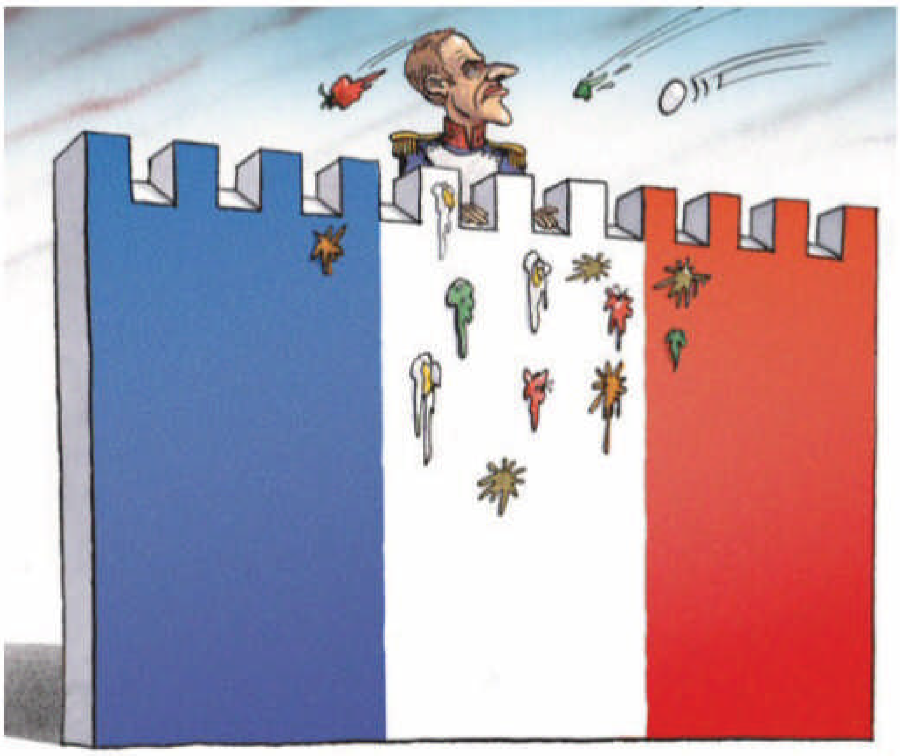
The use of invisible poisons is meant to enhance the security services' aura of mystery and omnipotence. But Mr Navalny's Gogolesque conversation with his pursuer was a humiliating destruction of the myth. Ekaterina Schulmann, a Russian political scientist, compared its symbolism to the moment in 1987 when Mathias Rust, an 18-year-old German pilot, landed a small plane near the Kremlin, making a mockery of the Soviet Union's supposedly impenetrable air-defence system.

Mr Navalny's investigation may not have convinced many Russians that Mr Putin ordered him poisoned. The Levada Centre, a pollster, says about 15% of the population believe this version. Yet 19% accept Mr Putin's ludicrous theory that the poisoning was a CIA plot. Most Russians think the poisoning never happened, or prefer not to think about it. Still, the revelations undermine Mr Putin's claim at his December press conference that "if [the FSB] really wanted to poison him, they would have finished the job." The humiliated agency may yet try to prove Mr Putin right. ■

How to debrief an agent

Charlemagne | Canning's law

The long tradition of snarking in France's general direction



THE FRENCH, wrote George Canning, a British statesman, to a ministerial colleague in 1825, "have but two rules of action: to thwart us whenever they know our object; and when they know it not, to imagine one, and to set about thwarting that." Canning's grumble, made a decade after the end of the Napoleonic wars, sounds oddly familiar two centuries later. And today it is not only the British who follow what might be called Canning's law: when in doubt, blame the French. Suspicion of France's intentions, and criticism of its actions, have been on the rise in several other countries, in sometimes understandable but often perplexing ways.

Exhibit A is, of course, Brexit. "Only preening Emmanuel Macron stands in the way of Boris Johnson's triumph," thundered the *Daily Mail* when a deal seemed improbable. Downing Street hyped up French demands, and vowed to dispatch gunboats to defend British fishing waters. Yet other EU leaders too had threatened to walk away from talks. When Britain announced a new covid-19 strain had got out of control, several EU countries shut their borders. Yet "Covidiot Macron" was uniquely pilloried. A British official accused the French of "trying to take food off our shelves for Christmas out of spite." Britain, it seemed, had fallen victim to sly Gallic posturing, designed to punish and enfeeble an old rival.

Or consider the finger-pointing directed at France after recent terrorist attacks against the country. In the wake of the beheading in October 2020 of Samuel Paty, a schoolteacher who had shown his pupils caricatures of the Prophet Muhammad, Mr Macron became a public enemy in parts of the Muslim world. His offence was to have defended the French law on freedom of expression that protects blasphemy (against any religion). As a false rumour spread that France was to give Muslim children ID numbers, a Pakistani government minister tweeted: "Macron is doing to Muslims what the Nazis did to the Jews." This absurd tweet was later retracted. Not so the comment by Turkey's leader, Recep Tayyip Erdogan, declaring the French president mentally ill.

It is hardly surprising that authoritarian regimes find Mr Macron a useful whipping boy—a bit of outrage directed at foreigners distracts people from injustice closer to home. More wounding for the French is that some parts of the American media accuse France of being peculiarly responsible for breeding terrorists. To be sure, there are legitimate and complex questions to be asked about the French model of secularism known as *laïcité*, and whether a new bill to combat Islamism confuses conservative religiosity with opposition to democratic governance. Yet France is hardly Europe's only incubator of terrorism. Just over a decade ago it was British multiculturalism that was widely blamed for Islamist radicalisation, notes Lorenzo Vidino, director of George Washington University's programme on extremism. As a share of population, Belgium, Denmark and Sweden—none of them practitioners of French secularism—sent more jihadist fighters to Syria and Iraq than France did.

Some of the criticism France draws abroad is fair. It has pursued a few half-baked ideas, such as seeking a security partnership with Vladimir Putin's Russia. Mr Macron's assertion that Islam is "in crisis" around the world was particularly ill-judged. He indulged in some counterproductive tough talk on Brexit, partly because he enjoys saying things in public that other Europeans prefer to say behind closed doors. Indeed, the French president seems to relish controversy, whether he is decrying NATO's "brain death" or sending French warships to defend Greek waters from Turkish oil and gas exploration. Such outspokenness and pesky unilateralism are familiar themes in French history, and they have often bred distrust on the part of baffled allies. "I must confess, my dear General," wrote President Dwight Eisenhower to Charles de Gaulle in 1960, with magnificent restraint,"that I cannot quite understand the basic philosophy of France today."

All of which raises two thoughts and a paradox. The first thought might be summed up as "Foucault's revenge". America's left, with its embrace of identity politics and scepticism towards universal individualist values, is deeply influenced by the post-modern French critical theorists of the 1970s. Yet France's leaders are unapologetic defenders of just such universal individualist values, which are among the country's founding principles. American liberals, who had thought Mr Macron one of them, struggle to make sense of a liberal French leader who curbs religious expression. It feels like a betrayal.

Emmanuel in Paris

A second reflection touches on why the French are considered fair game. "France has been the beneficiary, particularly among Americans, of a constructed fantasy," suggests Matthew Fraser, at the American University of Paris. This is the romantic promise of intellectual sophistication, culture and effortless chic. Captured in exaggerated form by the Netflix series "Emily in Paris", it is an ideal embodied by those Americans—Gertrude Stein, Ernest Hemingway, Josephine Baker, Richard Wright—who adopted Paris in the 20th century. Nobody likes to mock an underdog. But France, self-satisfied and secretly envied, seems as if it can take the ribbing.

And so to the paradox. France finds itself picked upon at a time when Europe has seldom been so open to embracing French ideas. French proposals that were once politely read and shelved by European friends—common EU debt issuance, taxes on tech giants, sanctions on Turkey, even "strategic autonomy" in defence—are no longer debated only in the parquet-floored salons of Paris. They are increasingly approved by the EU. For Mr Macron, whose visibility will grow in 2021 as Angela Merkel's chancellorship ends, this presents both an opportunity and a peril. The harder the French president pushes his ideas, the more progress he may make, but the more he may irritate others. Every story needs a villain, and as Canning knew, the French make a tempting one. ■

The Brexit deal (1)

Britain's Swiss role

The UK-EU trade agreement means more red tape and an eternity of negotiations

THE TRADE deal that Boris Johnson and Ursula von der Leyen, the European Commission president, struck on December 24th is better than no deal. That is about the best that can be said for it. It does not cover all of Britain's trade, nor does it provide stability. An eternity of negotiations lies ahead. Britain's relationship with the EU will look rather like that of Switzerland, which has spent years battling over details.

Last-minute concessions on both sides got the deal done. Even a week earlier, many diplomats doubted it would happen. But Mr Johnson then gave ground on fisheries, and Mrs von der Leyen backed off a demand for instant retaliation if Britain diverged unfairly from the so-called level playing field for EU labour, environmental and state-aid standards. Businesses on both sides are relieved, although doing a deal barely a week before the standstill transition period ends on December 31st is likely to maximise short-term disruption.

For goods trade, the deal means no tariffs and no quotas, a broader agreement than Canada's. Carmakers and the agrifood industry are reasonably happy, though the fishing lobby was disappointed with taking back only 25% of the EU's catch in British waters until June 30th 2026. But Mr Johnson is wrong to claim that there will be no new non-tariff barriers. Leaving the single market and customs union necessitates border, customs, rules-of-origin and veterinary checks that will raise the cost of trading, even if the rules are lightly enforced at first. And the level playing field, albeit now subject to independent arbitration, means that if Britain diverges much from EU standards, tariffs may be reimposed.

The biggest gap is services, some 80% of Britain's economy and nearly half its exports. The EU sees the free movement of people as integral to trade in services, so Britain was bound to lose unfettered access to that market. Brexiteers argue that since there is no EU single market in services, that is no great loss. It is certainly incomplete; but being cut out of it will still hurt. Professionals may find it harder to work in Europe, for their qualifications will no longer automatically be recognised. Audio-visual services, a business in which Britain leads Europe, are excluded from the deal. Digital and e-commerce providers will face new barriers. It has yet to be decided whether rulings in Britain's civil courts will be valid in the EU; if not, lawyers may lose lucrative business.

Nowhere is the deal thinner than in financial services, the source of Britain's greatest comparative advantage. Early hopes of keeping "passporting" rights that allow British-based financiers full access to EU customers evaporated with the decision to quit the single market. The Bank of England also insisted on keeping regulatory autonomy over financial services. The EU has granted equivalence for British regulatory standards only temporarily and in specific areas, such as derivatives clearing, that it sees as crucial to its own financial stability. Rishi Sunak, the chancellor, promises to negotiate a broader deal, but the EU is clear that equivalence is a unilateral decision that can be revoked at 30 days' notice. Many EU countries hope to pinch financial business from London; there is no reason to expect them to be seized by a sudden fit of generosity to a rival.

There is a similar concern over the handling of data. It had been hoped that the EU would take an early decision to approve the adequacy of British data protection, but it has not yet done so. Purists on the conti- ▶▶

nent are anyway dubious about Anglo-Saxon commitment to data privacy. The EU has in the past criticised British and American protection of personal data. British access to EU security and police databases will also be somewhat curtailed in future, making a nonsense of claims by Priti Patel, the home secretary, that the new deal somehow makes Britons "safer".

On financial services, data and much else the Brexit negotiations are by no means over. It is not just that there are loose ends in the deal to tie up. The agreement also sets up a raft of over 25 specialist committees, ministerial councils and working groups in areas ranging from organic products to sanitary and phytosanitary measures, from aviation safety to public procurement. And it provides for both sides to review the deal's implementation every five years, which may be interesting after the next British election.

Further liberalisation of trade in services will equally be a matter of apparently endless negotiation. As David Henig, a trade expert, notes this week in a paper for Best for Britain, a lobby group, new restrictions on visas for EU citizens will make life harder for many services businesses that are heavily dependent on the ability of individuals to move around freely. He adds that, if it is to make further progress with global liberalisation of trade in services, which has largely stalled, Britain will first have to work more closely with the EU, by far its biggest market.

This is the lesson from Switzerland, which rejected EU membership in the early 1990s largely because of concerns about sovereignty that echo those of most Brexiteers. The Swiss have since spent years negotiating two complex packages of measures to give them broad access to the EU's single market for goods, but not for many services, including most financial services (although Switzerland accepts free movement of people and is even a member of the Schengen passport-free zone). Over the past decade the EU and Switzerland have engaged in often grumpy negotiations to create a single governance structure for these measures rather like the one that will now be in place for Britain. Cross-retaliation has been common: 18 months ago, in a dispute over judicial oversight, the EU peremptorily withdrew its equivalence ruling for the Swiss stock exchange.

Swiss officials now devote much time and effort to poring over EU legislative proposals, Swiss diplomats to negotiating with Brussels. Yet however well they do their jobs, the imbalance with the EU puts them at a disadvantage. Britain is bigger than Switzerland, but it will be the supplicant in almost any negotiation. Brexiteers celebrating their country's great escape will find that the future is not so blissfully free of the EU as they might hope. ■

The Brexit deal (2)

No longer in Rome

What Britons lose after Brexit

A ROMAN TRAVELLING anywhere in the empire from modern-day Carlisle to Damascus was said to have his safety guaranteed by declaring: "Civis Romanus sum." The Maastricht treaty of 1992 created a similar notion of European citizenship, affording the bearer rights superior to domestic law throughout the bloc, which compel officials, bosses and judges to treat all Europeans as the equals of their compatriots.

From this grand idea spring a thousand small perks, making going on holiday or serving a client abroad effortless. Britons will have plenty of time to consider them as they finger their new dark-blue passports in the non-EU queues at European airports.

Britons who settled on the continent before Brexit will have the rights of citizenship preserved under the Brexit withdrawal agreement. For everyone else, they will drop away as Big Ben strikes 11pm on December 31st. How Britons are treated thereafter will depend on the rules agreed in Mr Johnson's new deal, the long-standing provisions of European law which apply to all "third-country nationals" from Americans to Zimbabweans, and the migration laws of individual EU states, which change with the political weather. Those holidaying on the continent for a fortnight a year may notice a little more hassle. Those who wish to go for longer—to study, or spend the summer in a second home—will find their rights and options curtailed dramatically.

Canis Europeaus sum

EU citizens face almost no restrictions on moving to another state for work or leisure, and can cross borders more or less as they please. After Brexit, Britons will be limited to up to 90 days **travel** at a time without a visa within a six-month period. Border guards may demand proof of their plans, a return ticket, and that they have enough money for their stay. (Eurostar has urged all travellers to the continent after Brexit to arrive earlier than they used to.) Britons will lose the right to use automatic passport gates, and will receive rubber stamps in their passports.

Doing business will be much trickier: no longer will Britain be able to treat the EU as its home market. Business travellers will be able to visit for up to 90 days for meet-and-greet activities, such as attending sales meetings, trade fairs or conferences. But generally speaking, delivering a service—such as auditing accounts, playing in a concert or working as a chef—will require a **work visa**, and in many regulated sectors getting registered as a local professional too. Visa policy is largely a matter for national governments, which have their own criteria of skills, language requirements and fees that vary depending on the needs of the labour market. British students, no longer entitled to equal treatment, are likely to pay much higher fees for places at European universities.

Motorists will need to carry a green card, showing their **insurance** is valid. EU laws that prohibit customers from being hit with **roaming charges** when they use their mobile telephones abroad will drop away. Whether fees return depends on the deals that operators strike with their European counterparts; big operators, such as Vodafone, will have more clout than smaller ones. Britain will drop out of the EU's **pet-passport** regime, which documents animals' vaccinations and allows holidaymakers to take dogs and cats abroad; owners will instead need to obtain an animal health certificate from their vet each time they travel. Not all is lost, however. Under Mr Johnson's plan, Britain hopes to retain a variant of the European Health Insurance Card, which grants holidaymakers **emergency health care** when on the continent.

Retiring to a place in the sun will be a trickier affair, particularly for those on tight budgets. Each country has its own rules for foreign pensioners who want to stay. They typically need a minimum income and medical insurance. British owners of **property** abroad will be more vulnerable to tax raids too: in 2015, the European Court of Justice struck down a French tax on properties owned by other European nationals as incompatible with European Union law. Such protection against official whim is the difference between being a guest in a foreign land, and being someone who can declare: "Civis Europaeus sum." ■

The Brexit deal (3)

The Irish Sea widens

BELFAST

A new border inside the UK brings Northern Ireland closer to the republic

Like many people, Viviane Gravey became more interested in gardening during lockdown. She bought dill and lettuce seeds from Real Seeds, a firm in Wales, and grew them on her balcony. But next year's crop will have to come from another source, for the firm emailed her to say that, because of the new border in the Irish Sea, it would no longer sell to Northern Ireland.

During the fraught negotiations over the UK-EU trade deal, a number of British firms stopped supplying Northern Ireland. Now that the deal is done, some may return to the market, but the new border will raise costs. Firms may pass them on to consumers or decide that the Northern Irish market is too small to bother with.

The internal border is the result of the determination of the Irish and British governments to avoid the creation of a "hard" border on the island of Ireland. Negotiations on the withdrawal agreement nearly collapsed over this issue. Boris Johnson's solution was to leave Northern Ireland in the EU's single market for goods, bound by EU regulations. EU customs rules will be enforced at Northern Irish ports.

Goods travelling from Great Britain to Northern Ireland will need new paperwork. From April 1st, for instance, when a grace period ends, animal products will need export health certificates. Aodhán Connolly, director of the NI Retail Consortium, says that a typical supermarket lorry carries 200-300 products of animal origin. The necessary certificates will cost thousands of pounds. All goods being shipped will need customs codes and some require Meursing codes, which determine how much duty is payable. Lorries will be allowed on ferries only if codes are correct.

Mr Johnson had pledged "unfettered" access to Great Britain for Northern Irish firms, and has largely delivered that. But if goods cannot travel easily from east to west, that will hamper trade in the other direction, for Northern Irish firms need empty lorries in which to transport their goods.

Still, there are likely to be some upsides for the Northern Irish economy. Stephen Kelly of Manufacturing NI says that highly regulated manufacturing sectors such as pharmaceuticals will benefit from having a foot in both the EU and UK markets. Goods produced in Northern Ireland will be able to circulate freely in the EU, and the UK has agreed that those goods can also freely enter the British market. "The more regulated your industry, the bigger the benefit," says Mr Kelly.

As the gap between Northern Ireland and Great Britain widens, that between the province and the republic is narrowing. Ireland regards itself as the defender of Northern Irish interests in the EU, and has given this commitment practical effect by announcing that it will pay for continued Northern Irish access to both EU emergency health care and the Erasmus student exchange programme. The bill for Erasmus will be €2.1m ($2.6m), but according to Simon Harris, Ireland's minister for universities, "It's not a cost; it's an investment...in our next generation."

That next generation is likely to vote in a future referendum on Irish unification. Brexit has moved Northern Ireland farther from the UK and closer to the republic. In itself, this will not reunite Ireland, but the leap is getting smaller. ■

Covid-19 vaccines

Now for the rocket boosters

The approval of AstraZeneca's vaccine will greatly accelerate the roll-out

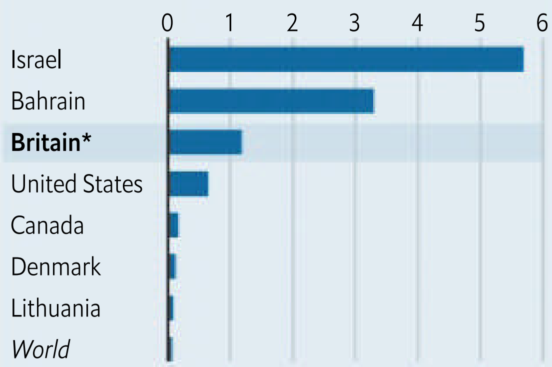
This year more than 600,000 Britons received an early Christmas present: a Pfizer covid-19 vaccine. The early start of the roll-out—enabled by the speedy work of the country's regulator, the MHRA—puts Britain near the front of the global pack. Only Bahrain and Israel have delivered more doses per person (see chart).

The government had hoped things would be faster still, only for delays at Pfizer to put a spanner in the works. January will be a different story. The firm's factories are now up to speed. And on December 30th, the MHRA gave emergency authorisation to another vaccine, from AstraZeneca and Oxford University.

The more, the merrier

Covid-19 vaccination doses administered per 100 people, to December 28th 2020

Selected countries



Source: Our World In Data *To December 24th

This one is cheaper, easier to distribute and more plentiful. The plan is for mass vaccination centres to dish out hundreds of thousands of doses a day, quickly reducing the number of deaths. Distribution will begin on January 4th.

One of the big debates was around the dosing strategy. The original trial showed two doses of the vaccine were more than 62% effective, but also offered tantalising evidence of protection as high as 90% when the first dose was halved. (As with all the covid-19 vaccines, it is completely effective at preventing death however it is given.) The question was if there was the data to support a half-dose strategy.

In the end, the MHRA went for a two-dose strategy—but with a twist. Some, including a former prime minister, Tony Blair, had argued that single doses of the AstraZeneca vaccine should be rolled out immediately, rather than holding back supply for a second dose. That would allow for speedier vaccination. Yet the concern over giving only one dose of any two-dose vaccine is that individuals do not get the full benefit of vaccination, even if it helps the population at large.

A potential solution lay hidden in the AstraZeneca data. The firm says that a longish gap between doses, of as much as three months, is fine. Having analysed the data, the MHRA agreed, deciding to give single doses to everyone, with follow-up jabs as far as three months down the line. That could double the number of people who can be vaccinated in the next few months.

The call is of international importance. Now the MHRA has authorised the AstraZeneca vaccine, other countries will probably follow suit. One watching closely is India, which started producing the vaccine in April, and has about 40m doses ready to go.

The government is tight-lipped about how many are ready in Britain. But in November AstraZeneca said it would have enough bulk substance for 20m doses, and that 4m would be in vials by the end of the year. That would be enough substance to give a first dose to every front-line health- and social-care worker, everyone in a care home, everyone who is clinically vulnerable, everyone with underlying health conditions and everyone over the age of 60.

Because fatalities are concentrated among the old and vulnerable, doing so would prevent almost all deaths. Given that the health service vaccinates 15m or so people in a normal flu season, and does so without mass vaccination centres, it ought to be doable in the next few months. Matt Hancock, the health secretary, said he was confident that enough vulnerable people will be vaccinated by spring that there would be a "route out of this pandemic". So long as neither vaccine-resistant strains nor supply problems emerge, covid-19 will soon be a much less deadly disease. ■

How it happened

When the music stopped

How Britain went from enthusiastic commitment to the EU to an acrimonious departure on unfavourable terms

THE VOTE in the House of Commons to approve Britain's membership of the European Economic Community on October 28th 1971 was greeted with widespread jubilation. The "yes" vote was larger than expected, and it passed with a majority of 112. Leading politicians went off to celebrate in different ways—some to parties, while the famously buttoned-up prime minister, Edward Heath (pictured), returned to Downing Street in a mood of elation and played the first prelude and fugue from Bach's "The Well-Tempered Clavier".

As Britain completes its departure from the EU half a century later, there is little celebration. Even determined Eurosceptics complain about the terms of the withdrawal treaty, particularly over fishing. Others are regretful if not furious: according to the latest poll, 48% of Britons now think the country should remain in the EU, while 38% think it should leave. There is nervousness, especially among the businesses that trade with Europe, about how the relationship will work. And there is residual puzzlement on both sides. How did it go so wrong?

Britain's history meant it was always ambivalent towards the European "project". For most continental countries, building European unity was a reaction to the horrors of the second world war and its aftermath. The Germans were escaping Nazism, the French defeat and collaboration, the Italians dictatorship, the eastern Europeans, when they eventually joined, Soviet domination. Britain was the only member that felt no need to escape from its past—indeed, in many ways, it preferred wallowing in the past to confronting the future. For Britain, unlike the rest of Europe, the nation state is something to be celebrated rather than transcended.

Britain's imperial history also made a difference. Its empire was larger and more recent than other European nations'. Culturally, the British feel closer to America, Canada and Australia than they do to Europe. Two-and-a-half times as many British expatriates live in the English-speaking world as on the continent, and Britain's main ethnic minorities are from Commonwealth countries. That English is the language of the world gives monoglot Britons the sense that they are at home anywhere.

Politics on both sides of the channel reflected this ambivalence; Heath's passionate Europhilia was unusual. Charles de Gaulle famously vetoed Britain's first application to join in 1963 on the grounds that Britain "is insular, she is maritime, she is linked through her exchanges, her markets, her supply lines to the most diverse and often the most distant countries". Most of Britain's leading post-war politicians shared the general's doubts. Harold Macmillan, a Conservative prime minister, worried about the emergence of a "boastful, powerful 'Empire of Charlemagne'" and applied to join in part in order to change Europe from within. Hugh Gaitskell, the Labour leader, worried that a federal Europe would mean "the end of Britain as an independent European state...the end of a thousand years of history".

Politicians' doubts led a Labour government to hold a referendum on membership in 1975, only two years after joining. But strike-ridden Britain was a mess and Europe seemed to offer a more stable and prosperous future. Over two-thirds of voters wanted to stay. The establishment, too, had come round. *The Economist* put a picture of a young member of staff wearing a tight T-shirt, emblazoned with "Europe or bust", on the cover. Margaret Thatcher, subsequently a Eurosceptic pin-up, campaigned enthusiastically for continued membership (pictured overleaf), and in the 1980s it was she who persuaded the union to take its most important step forward of that decade—the single market.

From the start, Britain was unhappy about the terms of its membership. Farming was the main point of contention. Committed to free trade in food since the abolition of the corn laws in 1846, Britain had a tiny agricultural sector compared with its neighbours and enjoyed cheap food. The EEC kept farmers in business by imposing high tariffs, making consumers pay high prices and handing out subsidies. As a result, Britain was the second-largest contributor to the European budget, until Thatcher got "our money back" in 1984.

But it was supra-nationalism that most bothered the British. From the first Britain saw itself as the champion of a Europe of nation-states that came together voluntarily to make the business of the world easier to conduct. But in the eyes of its founders, Europe was a political project whose purpose was to bind the continent so tightly that future conflict would be inconceivable. As Europe moved towards an "ever closer union", the tensions grew.

Two speeches and a treaty

In the 1980s Euroscepticism was confined to the extremes. Its leading champions were Enoch Powell, so far to the right that he had parted company with the Tories, and Tony Benn, a hard-left Labour man. Jacques Delors, president of the European Commission, did much to change that. He gave a speech to the Trades Union Congress in 1988 in which he anticipated that most future legislation would come from Europe. Thatcher responded with her Bruges speech: "We have not successfully rolled back the frontiers of the state in Britain, only to see them reimposed at a European level with a European superstate exercising a new dominance from Brussels." Euroscepticism burgeoned inside her party.

The Maastricht treaty of 1992 drove the ▸▸

union closer together, and Britain and the other member states further apart. The EU's residents became "citizens of the Union" with fundamental rights including the freedom to live wherever they wanted. The word "economic", which had first attracted Britain, was dropped. The adoption of a single currency created pressure for ever-greater pooling of sovereignty. Optimists thought that Britain could have its cake and eat it by being half in and half out. Pessimists argued that the pressure to pool sovereignty would make this position impossible to maintain.

Those speeches and that treaty served to recruit young enthusiasts, such as Daniel Hannan, who joined the older hard core of Eurosceptic Tory MPs such as Sir Bill Cash and Sir John Redwood. Outside Parliament, the movement coalesced into pressure groups such as the Bruges Group and Sir James Goldsmith's Referendum Party. The United Kingdom Independence Party (UKIP), a bunch of provincials ridiculed by metropolitan Europhiles, got nowhere in Westminster elections but made ground in European ones.

Three men and an issue

The global rise of populism after the financial crisis poured fuel on these sparks. Britain proved especially susceptible, partly because of the size of its financial sector, and partly because David Cameron's government slashed spending, hurting poor areas most. The Labour Party lurched to the left, electing Jeremy Corbyn, a hard-left Eurosceptic, as leader. UKIP grew in strength, snapping at Mr Cameron's heels, demanding a referendum. In order to weaken its position in the 2015 election, he promised one—believing, in his hubristic way, that if he actually had to hold one, he would be able to swing it. To his surprise, he won the election—having fallen into the trap the Eurosceptics had set him.

The Leave campaign's victory was forged by three men and an issue. Boris Johnson, formerly mayor of London, provided a smiling face as the front for a movement that had usually worn a snarl. Dominic Cummings, the campaign's ideologue, provided it with the brains it had previously lacked. But the Leave campaign's most powerful weapon was perhaps Mr Corbyn. His lukewarm campaigning for Remain and known distaste for the EU probably tipped the result for Leave.

The issue was immigration. Britain had supported the eastward expansion of the EU partly on the ground that a larger Europe seemed like an alternative to a deeper one. But enlargement gave low-paid Europeans a chance to better themselves by moving to Britain, thanks to Tony Blair's refusal to follow 12 other EU countries in making use of a seven-year brake on citizens of the new states exercising their right to work. The number of Polish-born residents in the UK increased from 56,000 in 2001 to 911,000 in 2016 and Romanians from 14,000 in 2004 to 310,000 in 2016.

In places into which eastern Europeans had flooded, the Leave vote was especially high. But immigration had a broader, more pervasive effect on the vote. The government's failure to reduce the foreigners' numbers, despite repeated promises to do so, contributed to the feeling that Britain had lost control of its destiny in the most important aspect of national policy—determining who lives inside your borders. To vote "out" was, in the Leave campaign's slogan, to "take back control".

Four players and a dangerous game

Even difficult marriages are hard to end. Over half a century, European legislation had become part of the warp and weft of British law and European and British business thoroughly entwined. Lawyers contracted thinking about rights to their European counterparts. Businesses happily embraced European regulations.

The nature of the referendum made leaving all the harder. Voters were offered a binary choice about a complicated set of relationships. There was nothing on the ballot paper about the single market, the customs union or how the 500km-long border between Northern Ireland and the republic of Ireland, freighted with history and fraught with tension, should be dealt with. The asymmetry between the complexity of the problem and the simplicity of the question ensured that the referendum debate was both shallow and mendacious.

Given how many issues the referendum left undecided, the terms of Britain's departure could have been settled in any number of different ways; and the close result—48:52—argued for the "soft" Brexit that most MPs favoured, with Britain remaining close to Europe. That the outcome has been a "hard" Brexit, with Britain leaving both the single market and the customs union, is a consequence of the way four interested parties chose to play their hands.

For Theresa May, a Remainer bounced into the premiership after Mr Cameron's ignominious resignation in the wake of the referendum, offering a "hard" Brexit looked like a way of keeping the right wing of her party onside. The 2017 election shrank her majority and made her their hostage. When she softened her position on Brexit, they got rid of her and replaced her with Mr Johnson, who boldly sacked a bunch of recalcitrant Remainers, bringing the parliamentary party to heel.

For Mr Corbyn, opposing the Tories' position was more important than achieving an outcome that kept Britain close to the European Union. For the Liberal Democrats, a purist determination to overturn the result looked like the best way of distinguishing their position from Labour's, so they went into the 2019 election with the slogan "Bollocks to Brexit". The clash of absolutes eliminated the middle ground.

The Europeans also contributed to the "hard" outcome. They could have compromised with Mrs May when she was desperately trying to sell her softer deal. But member states had their own particular demands—so, for instance, negotiations went to the wire over French fishermen's insistence on continued access to British waters—and the EU wanted to make it plain that those who leave the club cannot enjoy the benefits of membership.

The vote to leave thus led to one of the most turbulent periods in recent British history. Careers, such as Mrs May's, were made and destroyed with extraordinary speed. Precedents were broken. When the government prorogued Parliament to get its way it was slapped down by the Supreme Court. The Conservative Party, once the party of toffs and the middle class, was rebranded as anti-European and working-class. And a country which had been lukewarm about the continent saw the birth of a pro-European movement flying the European flag daily in Parliament Square.

The ructions are not over. The referendum has strained the United Kingdom's bonds. Scotland voted for Remain by a large majority and Northern Ireland by a smaller one. To avoid creating a hard border between Northern Ireland and the republic, a border has been established inside the United Kingdom, between Great Britain and Northern Ireland. That will have consequences. A majority of Scots now want independence, and support for Irish unification is growing. The most striking consequence of that historic day in 2016 might not be Britain's exit from a European Union that it never loved but the break-up of the nation-state whose sovereignty the Brexiteers sought to defend. ■

Human rights

No time to give up

Laws to punish human-rights abusers are growing teeth

THE BALDING figure looks frail and harmless, sitting in the dock behind a Perspex screen in the German town of Koblenz, where the rivers Rhine and Moselle unite. But appearances can deceive. Anwar Raslan, 57, once a Syrian policeman, has been charged with torturing more than 4,000 people and murdering at least 58 between 2011 and 2012, when Syria's dictator, Bashar al-Assad, set about crushing the initially peaceful demonstrations that shook his regime as the Arab spring took off.

Mr Raslan is on trial because, by his own lights, he made a mistake. Having fallen out with the regime, in 2012 he joined the exodus of Syrians who ended up in Germany, where he seemed to be settling down nicely with his family in a Berlin suburb, until one of his alleged victims, by a fluke, spotted his presence—and told a human-rights group. With the encouragement of NGOs, in particular the Berlin-based European Centre for Constitutional and Human Rights (ECCHR), Germany's judicial authorities applied the principle of universal jurisdiction, whereby human-rights violators of any nationality can be charged in any country, no matter where the crimes were committed. Mr Raslan was arrested in 2019. His trial began in Koblenz in April 2020 and may last for more than a year.

Scores of witnesses will be called before five German judges. Thousands of photographs collected by a Syrian military photographer may be shown. A gravedigger has described the condition of hundreds of bodies, often mutilated in the dungeons of the building where Mr Raslan is said to have worked, which were thrown into mass graves. A catalogue of torture is being spelt out in court, including electric shocks, the pulling out of fingernails, beatings with cables and whips, hanging upside down, dousing with cold water and rape—nothing was too cruel.

The idea of universal jurisdiction won global attention in 1998 when a murderous former president of Chile, Augusto Pinochet, mistakenly presuming diplomatic immunity, was arrested in Britain at the request of a Spanish judge—and was eventually sent home. Since then the practice has gathered pace. A new case opened on December 3rd in a court in Switzerland, where Alieu Kosiah, a Liberian former commander, is being tried for crimes such as mass murder and recruiting child soldiers, allegedly committed during a civil war more than 20 years ago in his home country.

The number of universal jurisdiction cases is rising. Máximo Langer, an Argentinine expert at the University of California, Los Angeles, counts 815 such cases from 2008 to 2017, nearly as many as in the previous two decades put together. At least 16 countries have heard cases under universal jurisdiction; 71 cases have been completed, mostly with convictions. About 40% of the defendants have been African, a quarter from the Middle East, a fifth from Europe and 8% from Asia. Other regions may follow; Argentina is keen to use this powerful tool. Some countries allow universal-jurisdiction trials *in absentia*.

Spain and Belgium led the way in pursuing cases under universal jurisdiction. The Netherlands, the Nordics and Switzerland are prominent among countries where such cases are being tried. Germany is in the vanguard. According to Patrick Kroker of the ECCHR, which has helped at least a dozen plaintiffs in the Koblenz trial, 110 cases are now being investigated under universal jurisdiction in Germany, most of them to do with Iraq and Syria (concerning both the Assad regime and the slave-owning jihadists of Islamic State). The Koblenz case is the first where a member of the Syrian regime, albeit of middle rank, is facing justice in court.

Big men and international justice

Charges include: crimes against humanity | crimes against humanity and genocide

Name	Country	Position*	Year	Court	Result
Radovan Karadzic	Bosnia	President of Serb Republic (Bosnia)	1995	ICTY†	Life in prison
Ratko Mladic	Bosnia	General	1995	ICTY†	Life in prison
Jean Kambanda	Rwanda	Prime minister	1997	ICTR‡	Life in prison
Ramush Haradinaj	Kosovo	Prime minister	1998	ICTY†	Acquitted; new charge in 2020
Slobodan Milosevic	Serbia	President	1999	ICTY†	Died during trial
Charles Taylor	Liberia	President	2003	Special court for Sierra Leone in The Hague	Life in prison
Joseph Kony	Uganda	Rebel leader (LRA)	2005	ICC§	Fugitive
Khieu Samphan	Cambodia	Head of state	2007	UN-backed special tribunal	Life in prison
Jean-Pierre Bemba	Congo	Vice-president	2008	ICC§	Convicted; main verdict overturned in 2018
Omar al-Bashir	Sudan	President	2009	ICC§	Detained in Sudan in 2019
Laurent Gbagbo	Ivory Coast	President	2011	ICC§	Acquitted but ICC§ appealing
Uhuru Kenyatta	Kenya	President	2011	ICC§	Case dropped
Seif al-Islam Qaddafi	Libya	Son of leader	2011	ICC§	In Libya, status unknown
Hissène Habré	Chad	President	2015	African special court in Senegal	Life in prison
Anwar Raslan	Syria	Policeman	2019	German court under universal jurisdiction	On trial now
Hashim Thaci	Kosovo	President	2020	Kosovo specialist chambers	On trial now

Source: *The Economist*

*Not necessarily when indicted †International Criminal Tribunal for the former Yugoslavia ‡International Criminal Tribunal for Rwanda §International Criminal Court

Human-rights campaigners do not see universal jurisdiction as a rival system to the various international courts set up in the past two decades or so, culminating in the International Criminal Court (ICC). Rather, it is complementary. It is useful because the old system has holes in it. For example, the creation of UN-backed international courts and tribunals for Syria has been stymied by powerful countries (often China and Russia) which scorn the concept of individual rights and are bent on protecting their protégés. "The ICC has been blocked over Syria," laments Fergal Gaynor, an Irish human-rights lawyer who is bidding to be the ICC's next chief prosecutor. "So an expansive universal justice system has had to step in."

The ICC, which started to operate in The Hague in 2002, remains the cornerstone of an ambitious new architecture of international justice. It is the sole permanent court where grand-scale offenders, including heads of governments and states, can face justice for serious crimes, the "core" ones being torture, crime of aggression, crimes against humanity, war crimes and genocide. Two-thirds of the world's countries—123 at last count, 33 of them African—have signed up to it. Its main message is that no leader should consider himself (rarely, so far, herself) to have impunity.

The ICC has stumbled largely because of geopolitics. It can function properly only if its signatories fulfil their obligations to arrest and send those indicted to The Hague. A clutch of important countries—the United States, China, Russia and India—have refused to sign up, citing encroachments on sovereignty. Cases can be referred to the ICC only by the UN Security Council or with the consent of the country where the crimes occurred. The council has referred only two cases, during brief moments when America, China and Russia decided not to block: Omar al-Bashir, Sudan's president, was indicted for alleged genocide in his country's western region, Darfur; and Libya's late dictator, Muammar Qaddafi, was indicted at the height of the Arab spring, when he was bombing civilians in the city of Benghazi.

Going down in Africa

The ICC has succeeded in convicting only a handful of big men, all of them African. Several African governments, at first keen on the court after the genocide in Rwanda, have concluded that it was anti-African, though all the African cases, bar Libya's and Sudan's, had been referred to the ICC by African governments themselves.

It was thanks to the mediation of a recently retired secretary-general of the UN, Kofi Annan, a Ghanaian, that in 2011 Kenya's then government was persuaded to let the ICC indict two rivals, after a bloodily disputed election. It charged Uhuru Kenyatta and William Ruto, who later became president and vice-president, with crimes against humanity, but later had to drop the charges. "The ICC was no match for Kenya's government," says Reed Brody, an American human-rights lawyer. "It controlled everything—the country, the witnesses, the evidence. No way could the people in The Hague win." The ICC was humiliated.

The failure of states to arrest Sudan's Mr Bashir as he swanned around Africa, even though they had signed up to the ICC, was another reminder of the court's lack of authority: South Africa rolled out the red carpet for him. Another low point for it was when Laurent Gbagbo, a former president of Ivory Coast, whom it had charged with crimes against humanity, was acquitted eight years later.

Supporters of the ICC cite other tribunals backed by the UN that did bring justice to the many victims of atrocities during Yugoslavia's break-up in the 1990s and during Rwanda's genocide, which saw perhaps 500,000 people murdered, mostly with machetes, in 1994. Around 90 ex-Yugoslav and 61 Rwandan culprits were sentenced to prison, many for life. A final appeal by Ratko Mladic, the general who oversaw the massacre of 7,000 Bosnian Muslim men and boys at Srebrenica in 1995, will be heard in 2021, closing a judicial process that has lasted a generation.

While the ICC has struggled, other "hybrid" courts have been more effective, embracing a medley of ad hoc judicial systems operating under a mix of home-grown and foreign judges. "The ICC will never be a solution for all human-rights violations," says Serge Brammertz, a long-serving chief prosecutor for the Yugoslav tribunal. "I believe in an *à la carte* system: the ICC has an important but not the only role."

Mix and match

That may be the best way to go. Mr Brody led a successful campaign to convict Hissène Habré, a mass-murdering former president of Chad who had fled into exile in Senegal, where he was tried and sentenced to life in 2016 by a special UN-backed African court. In that case, though justice was achieved in an ad hoc court, the legal process against Mr Habré was initiated under universal jurisdiction by Belgium, eventually cajoling a new government in Senegal, backed by the African Union, into setting up a special court. Mr Brody says that Mr Habré's Chadian victims were inspired to seek justice by the Pinochet precedent.

Another recent case illustrates the enduring effectiveness of UN-backed tribunals. Félicien Kabuga owned a Rwandan radio station that helped orchestrate the genocide, urging neighbour to slaughter neighbour. He evaded arrest for 26 years; an informant who tried to lead police to him in Kenya in 2003 was found dead in a pool of blood. He was arrested near Paris last May, where he was living under a false identity, and sent to the ICC. He may be sent on to the Tanzanian city of Arusha, where a "special mechanism" has taken over from the Rwandan tribunal (it closed in 2015) to try the last of the *génocidaires*.

In the past decade or so other human-rights bodies have also set their sights on the worst offenders. The UN's Human Rights Council (HRC), the nearest thing to a permanent global state-backed monitor, is often ridiculed because its 47-strong membership, chosen in regional groups, often on uncontested slates, always includes a clutch of egregious violators. As of January 1st it embraces the likes of Bahrain, China, Cuba, Eritrea, Russia and Somalia. The council keeps Israel permanently under special scrutiny—the sole country it constantly scolds.

Less toothless than it appears

The United States, an active and effective HRC member under Barack Obama, refused to take part under Donald Trump. Yet despite its faults the HRC is useful. Its system of Universal Periodic Review puts every country in the spotlight every four years. The commissions of inquiry it can order have often laid the groundwork for further investigations, sometimes by other bodies with more teeth. And many of its 50-plus "special rapporteurs" and "independent experts" have written trenchant exposés of torture, disappearances and extrajudicial executions—along with more arcane topics such as the mistreatment of people with albinism and leprosy.

In 2005 the UN endorsed the principle of a "responsibility to protect" in cases of genocide or mass atrocities, justifying liberal military interventions. This has largely fallen into disuse. China and Russia are likely to veto any such proposal that comes before the UN Security Council.

However, governments that care about human rights have become savvier at getting around such obstacles. Although Mr Assad's regime shows no sign of collapse, a vast body of damning evidence is being collected, which may one day be used in court against the regime's chief villains. The Commission for International Justice and Accountability (CIJA), a Dutch-based NGO involved in the Koblenz case, is said to have collected 800,000 documents incriminating Mr Assad and his torturers.

Another way of circumventing the big human-rights blockers is to work through the UN General Assembly instead of the Security Council. A resolution presented in 2016 by tiny Liechtenstein led to the creation of the International, Impartial and Independent Mechanism (IIIM) to investigate crimes in Syria since 2011. Not to be outdone, the almost as tiny Gambia pulled off a similar judicial coup, after the HRC had passed a resolution in 2018 to create an "Independent, Investigative Mechanism for Myanmar". The Gambia got the backing of the 57-country Organisation of Islamic Co-operation to take Myanmar to the UN's International Court of Justice (ICJ), the world's highest court where states may contest each other, for its mistreatment of the Rohingyas, a Muslim minority. In September the Netherlands said it would hold Syria responsible, also at the ICJ, for gross violations under the UN's Convention against Torture.

Is this panoply of tribunals, laws and reports, which name and shame countries and people, a true deterrent? "It's impossible to prove a negative," says Andrew Gilmour, former deputy head of the UN's High Commission for Human Rights. "But yes, they do mind—they hate being shamed," he says, citing the lengths to which countries such as China go to prevent scrutiny. "Anyone who says they don't care—it's nonsense," says Prince Zeid Raad al-Hussein, the UN's former high commissioner for human rights, who adds hopefully that "One day the ICC will become a powerful court."

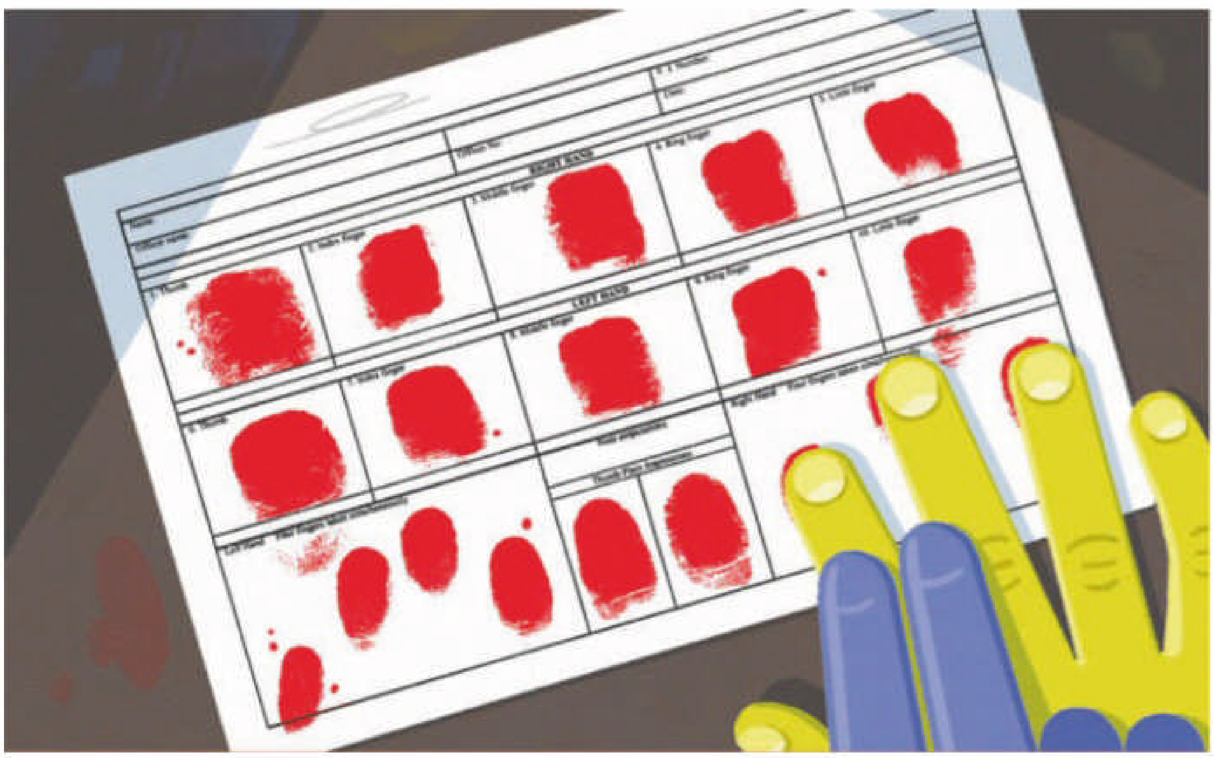
Moreover, there are signs that weaker countries that once kowtowed to China at forums such as the HRC are increasingly reluctant to do so. A row is brewing over the election of the council's next agenda-setting president. China seems bent on stopping Fiji, which takes human rights seriously, from winning the post. Instead it is promoting a pliable candidate of its own, Bahrain. Five years ago China would easily have prevailed; now it is less cocksure.

Back on track

Whereas Mr Trump cared little for human rights, campaigners are confident that President Joe Biden will promote them. He is unlikely to sign up to the ICC, particularly as it may investigate America's protégé Israel and perhaps, for alleged crimes in Afghanistan, America itself. But Mr Biden is likely to drop Mr Trump's bizarre executive order to put sanctions on the ICC's staff, including its chief prosecutor, Fatou Bensouda, should they visit America. The United States may once again tacitly support the ICC, as it did before. Mr Biden may also seek to rejoin the HRC, where America under Mr Obama often led the way.

Human-rights campaigners say the enduring web of tribunals and the spread of universal jurisdiction are raising hopes. "Things are moving in an interesting direction," says Marc Limon of the Universal Rights Group, a think-tank in Geneva. "We need a range of tools," he adds, hailing the EU and various states for enacting Magnitsky laws (named after a tax accountant murdered for exposing government chicanery in Russia) to prosecute individuals for human-rights violations or grand corruption. "It's a very different climate," says Mr Brody, who is seeking to have Yahya Jammeh, the Gambia's former dictator, extradited from his exile in Equatorial Guinea to face charges of complicity in murder.

"A whole lot of things are happening that make international justice possible," says Stephen Rapp, Mr Obama's ambassador for war-crimes issues, who calls himself "a fan of universal jurisdiction *and* of hybrid courts". Patience is in order. Mr Bashir, in detention since he was overthrown in 2019, may yet face justice, perhaps in a hybrid court in Sudan. Mr Raslan, the Syrian policeman on trial in Koblenz, may not be the sort of bigwig the ICC is intended to nail. But for torture victims in Syria, the trial is a welcome step. The evidence piling up, thanks to universal jurisdiction in Germany and elsewhere, suggests that Mr Assad may not enjoy impunity forever. ■



The future of e-commerce

The great mall of China

The next big thing in retail comes with Chinese characteristics

ALMOST EVERYONE in China knows "Austin" Li Jiaqi. The 28-year-old "Lipstick Brother", started out flogging make-up products in Nanchang, a provincial city, and now sells them to millions by live-streaming on Taobao, part of Alibaba, China's biggest internet retailer—once shifting 15,000 sticks of lipstick in five minutes. Some will recognise Chen Yi, nicknamed "Little Monster", a 24-year-old girl-next-door from the coastal city of Qingdao who sells sunscreen, snacks and lots more besides to her 20,000 followers on WeChat, a ubiquitous messaging app: a nice supplement to her day job as a bartender. More obscure but no less enterprising, farmers and fishermen show off juicy apples or prize lobsters in short videos, digital showmanship accompanied by new delivery networks that allow city dwellers to procure the produce.

Such are the faces—lipsticked, sunscreened, weather-worn or besnorkeled—that have helped propel an explosion of e-commerce in China. In rapid-fire videos or days-long jamborees, they flicker across hundreds of millions of smartphone screens in a cyber-bazaar that in 2019 was almost twice the size of those of America, Britain, Germany, Japan and South Korea combined—and growing faster (see chart 1 on next page).

As online shopping has soared, even before covid-19 added extra fuel, Chinese internet firms have dreamed up new ways to engage consumers. In contrast to Taobao, the new ventures do not yet make money. But they are growing apace. Chinese tech firms are pouring fortunes into them. Some of this capital flows straight back out as subsidies to entice buyers and sellers to the platforms, which clearly cannot go on for ever. But the effervescence is here to stay—and Westerners are only starting to notice. "If you want to see the future, look at China," Mark Schneider, boss of Nestlé, the world's biggest food company, instructs his executives. Lubomira Rochet, head of digital marketing at L'Oréal, a French beauty behemoth, contrasts the bottom-up, "consumer-centric" vibrancy of Chinese e-commerce with the West's "tech-driven", top-down approach.

Some Western tech executives dismiss the Chinese experience as a function not of creativity and enterprise but of structural forces. They cite China's higher mobile share of e-commerce—90% versus 43% in America (see chart 2). Others put it down to a concentrated market, where the top three firms, Alibaba, JD.com and Pinduoduo, account for more than 90% of all digital merchandise sales, a state of affairs that is beginning to trouble Chinese trustbusters, who on December 24th announced an investigation into Alibaba (see box on subsequent page). In America the online titan, Amazon, and its two challengers, Shopify and eBay, accounted for less than 50%.

Yet a survey of Chinese e-commerce reveals genuine dynamism. It is not just Alibaba making the running. In a few years ▸▸

→ Also in this section

Pinduoduo has captured 14% of the market, helping to trim Alibaba's share from 67% to 61%—and forcing the giant to moderate the "take rate" it charges those selling via its platforms. Digital firms from outside retail are muscling in, including Meituan, which started out in food delivery, and ByteDance, which owns TikTok and its Chinese short-video cousin, Douyin. The newcomers bring the sort of verve to online shopping in China that characterised America's consumer boom of the 1950s and 1960s.

Indeed, to understand the evolution of Chinese e-commerce, look back to the birth of 20th-century consumerism in America. It was built around overlapping technologies. The car carried people to the suburbs, giving rise to the shopping mall, a place not just to shop but to mingle and have fun. Although radio and television played a role, through advertising and product placement, Western retail's bedrock was—and continues to be—bricks and mortar. According to Bain, a consultancy, America has 3.3 times as much physical shop floor per person as China does. Bernstein, a broker, reckons that America's 330m people have 30 times as many malls as 1.4bn Chinese do.

The West's finest shops are as dazzling as ordering on Amazon is drab. They also represent legacy investments that retailers are loth to undermine. As a result, neither retailers nor their customers have had much of an incentive to shun them—at least before covid-19.

Not so in China. Like everyone else in the world, Chinese still buy most things in physical shops. Especially outside big cities, though, many of these are shabby. Some sell fake goods. So China's nascent middle class, armed with smartphones and broadband internet, finds online shopping both more rewarding and comfier than in the West, says Marc-André Kamel of Bain. A high population density makes delivery cheaper for consumers.

The result is a mix of shops, entertainment venues, food courts, games arcades and gathering places that replicates the 20th-century American mall in digital form, and hybrid links of the virtual with the physical. Videos show something being crafted by hand. Influencers draw attention to how the item is used. Friends recommend it (or not) on social media. Shoppers band together with other netizens to buy it in bulk at a discount. Live broadcasts turn the whole process into entertainment. And a network of real-world businesses delivers the purchases.

The anchor cyber-tenant is commonly a super-app like WeChat, which has 1.2bn users. It is owned by Tencent, China's biggest internet company—and directs traffic to JD.com and Pinduoduo, in which Tencent holds stakes. The line in people's minds between social networks and shopping websites does not exist in China, notes Frédéric Clément of Lengow, a consultancy. Shoppers love it. Bernstein expects e-commerce to account for more than a quarter of all retail sales in China by 2021, roughly twice the share in America, even after the pandemic-induced stampede online.

How the West was wan 1

E-commerce sales, % increase on a year earlier

Sources: Ecommerce Europe; Fitch Ratings; US Census Bureau

*Year to Q3 †Estimate

The first pillar of this new retail architecture is "social commerce". This relies on three related technologies: live-streaming, short-form video and social-networking. The biggest live-streamer is Alibaba's Taobao Live. In just 30 minutes of presales for Singles Day, China's answer to Black Friday, it notched up $7.5bn-worth of sales, about as much as Amazon is thought to have sold in its "Prime Day" in October (which actually lasted 48 hours). In June Douyin set up its own shopping platform, having earlier hosted live-streams where the likes of Taobao teamed up with celebrity influencers to sell products. The video-app's 600m daily users confer a valuable resource—their attention. In the autumn it made its proprietary debut on Singles Day.

The great leapfrog forward 2

Online indicators, 2019

Source: Bernstein

Fitch, a ratings agency, thinks the market for live-stream retail neared 1trn yuan ($153bn) in 2020, double the prior year's amount (see chart 3 on next page). Kuaishou, Douyin's short-video rival, expects the gross value of goods sold on live-streams to rise from 4.2% of online sales in 2019 to almost a quarter by 2025.

Live-streaming has boomed as covid-19 confined Chinese to their living rooms while many captivating alternatives, like Netflix, remained banned in the country. For people on relatively low salaries, the discounts on some of the merchandise are worth time spent glued to a live-stream. According to Elijah Whaley, marketing chief of PARKLU, one of a booming cottage industry of influencer agencies, Western brands shipped unsold products to China, where live-streams offered a way to flog them. Ms Rochet says L'Oréal's boss in China was flooded with emojis, likes and questions when he live-streamed a recent sales event. It included "lucky charms" that gave a few fortunate shoppers big discounts.

Many bargains are available for bulk purchases. This is where the social networks come in. Pinduoduo, founded in 2015 and now worth $175bn, enables groups, often formed via WeChat, to haggle with merchants, especially on groceries. It still makes a loss and burns cash. But its revenues are soaring, by almost 90% year on year in the third quarter. Seven-year-old Xiaohongshu, or Little Red Book, is already one of China's most popular apps for cross-border commerce, with an estimated 85m users, according to Tenba Group, a consultancy. Its customers, most of whom are young women, exchange shopping experiences via text, images and video. Tenba calls it a Chinese mix of Instagram and Pinterest, two American photo-sharing apps.

The second pillar of China's great digital mall is familiar to Western retailers as "omnichannel". Like social commerce, it too has boomed amid pandemic lockdowns and shop closures. In China the biggest e-emporia have their own supermarket businesses, such as Alibaba's Freshippo and JD.com's 7Fresh grocery chain. JD.com also has what it calls a "new-markets" business, which works with some of China's 6.8m local grocery stores. It ships them branded goods, delivers what is already on their shelves to local buyers, and feeds them data to optimise their operations.

Some physical retailers, for their part, offer digital coupons to encourage customers to pay a visit, as well as using live-streaming to generate buzz and, hopefully, foot traffic. Others offer "grab-and-go" shopping, including staffless stores and smart vending machines where payments are made by scanning QR codes.

Alibaba says that its hybrid sales more than doubled in the 12 months to March

2020, year on year, to 86bn yuan. They rose from 11% of its main retail revenues to 17%. Sales from JD.com's supermarket business grew by 48% year on year in the third quarter. Meituan has broadened its speedy deliveries from takeaway meals to groceries. Mini-warehouses built by startups such as Missfresh, which promises 30-minutes grocery deliveries, are mushrooming in Chinese cities.

Before 2020 both social commerce and hybrid shopping provoked mostly bemusement in the West. Covid-19 has led to a swift reappraisal. As George Lee, Facebook's head of product, puts it, the pandemic was a "call to action". The social network caters to the 160m businesses, mostly small and medium-sized, that use its apps and had to shift online as authorities ordered many physical shops to shut.

In May it introduced Facebook Shops, enabling businesses to set up a single online store on its core social network and its sister app, Instagram. In November Instagram redesigned its home screen for the first time in years, introducing tabs called Reels and Shop, which promote short videos, as well as online retail. Facebook's messenger apps, including WhatsApp, can be used to communicate with businesses on its platforms and may eventually be used for sales. Facebook Live also does streaming. In December Walmart, America's largest supermarket chain, held what it called a "Holiday Shop-Along Spectacular" on TikTok, with which it has formed a partnership. It allowed viewers to buy some of its fashion items exhibited by celebrities directly via the video app, apeing what Douyin has been doing in China.

Vishal Shah of Instagram makes a distinction between "buying" and "shopping" to describe Facebook's aim—in other words, turning a utilitarian process into a more personal experience. Other social-media firms are moving in the same direction. Since 2020 Snapchat users can try on make-up and shoes virtually, bolstering what the app calls "shopability". Shopify has enlisted TikTok to enable its 1m-plus merchants to market their wares by video.

In omnichannel sales, as in most things e-commercial, Amazon is ahead of the pack. It owns almost 500 Whole Foods Market stores and has opened some Amazon Fresh grocers in America that offer free same-day delivery to some members of its Prime subscription service. But big-box retailers like Walmart and Target, whose in-store pickups on online purchases have been a hit with covid-wary shoppers fearful of crowded aisles, have made huge strides.

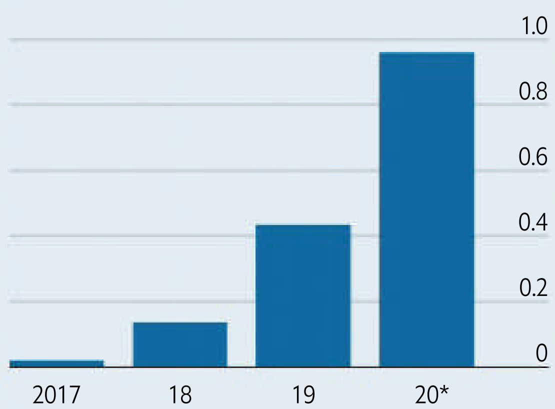
Not everyone thinks that America will follow the trail blazed by China. Bain says that recent inroads notwithstanding, social commerce accounts for a much smaller share of total retail sales in America than in China. Russell Grandinetti, Amazon's head of international retail, says consumers want different things at different times. Sometimes they just want to buy stuff quickly and cheaply, not be wowed by celebrities. He says Amazon pioneered certain browsing techniques, such as online book reviews and tips that "people who bought this also bought that". He notes that Prime Video and Twitch, Amazon's gaming platform, have attracted "millions of customers" primarily interested in entertainment to its free shipment of goods. As for live-streaming, "It just hasn't taken off in the West the same way it has in China."

It will do eventually, Mr Grandinetti thinks. Other observers point out that the

The shopping channel 3

China, live-streaming and short-video online sales

Yuan trn



Source: Fitch Ratings *Estimate

Online competition

Mo money, Ma problems

HONG KONG

China's trustbusters go after its mightiest internet titan

"ACTING ON INFORMATION, China's State Administration for Market Regulation [SAMR] has started investigation [into] Alibaba Group for alleged monopoly conduct including implementing an 'exclusive dealing agreement'." This brief note, posted by Xinhua, the state news agency, on December 24th, was all it took to cut China's mightiest online titan down to size. Not even the announcement three days later of an extra $6bn in share buy-backs arrested the slide in its market value. By December 28th it had fallen by 13%, or $91bn. By comparison, American regulators' detailed charge-sheets against tech giants such as Facebook and Google in recent weeks elicited a yawn from investors.

The Alibaba investigation is the first of its kind into Chinese e-commerce. Its timing—a month after authorities suddenly halted the $37bn initial public offering (IPO) of Alibaba's fintech affiliate, Ant Group, and days before regulators told Ant to curtail lending and wealth-management activities—hints it is China's way of chastening the two firms' flamboyant co-founder, Jack Ma.

That could be. Ant's IPO was put on ice after Mr Ma likened China's state banks to pawn shops. Chinese watchdogs often launch lightning crackdowns to deter others from misbehaving, says Angela Zhang of the University of Hong Kong. But the probe also signals concerns over the online economy, which is effervescent but also ever more concentrated. As investors parsed the Xinhua note, share prices of other internet giants, such as Tencent and Meituan, fell nearly as steeply as Alibaba's.

The complaint against Alibaba centres on the practice of having merchants or brands sign contracts to sell products exclusively on its platform. Those that do business on rival marketplaces risk having internet traffic diverted from their online shopfronts on Alibaba's Tmall emporium to other sellers.

Such arrangements aren't new. In 2015 JD.com, a smaller e-emporium backed by Tencent, filed a legal claim against Alibaba over a similar issue. Nor are they unique to Mr Ma's firm, which launched a competing complaint against JD.com the same year. These and other complaints since have been largely ignored by regulators. Why the about-turn?

Chinese trustbusters long resisted hobbling an industry seen as world-beating, and backed in Beijing. Now, as in the West, they fret that a few giants control indispensable services—e-commerce, logistics, payments, ride-hailing, food delivery, social media, messaging. Common practices, such as selling products below cost to lure customers, look more troubling in an industry where the top three firms control over 90% of the market than they would in a less concentrated one. In November SAMR said offering shoppers different prices based on their spending power, divined from user data, may be unlawful.

Another reason for China's newfound zeal (Mr Ma's jibes aside) is greater trustbusting capacity. SAMR was formed only in 2018, by combining the offices of three regulators. It still struggles to keep up with the fast-changing online market; most staff are busy assessing mergers and acquisitions. But it has more know-how and manpower than it used to—and looks eager to deploy them.

sheer size of America's physical retail presence makes the logistics of weaving offline and online cheaper—which may encourage more hybrid shopping models. In other ways America will chart its own path. Pricier labour than in China may lead to faster automation of online fulfilment. Greater concern over privacy relative to convenience may dampen shoppers' appetite for sharing their spending habits with friends on social media.

And China's retail razzmatazz could yet lose its vim. An ageing population will eventually reduce supply of cheap warehouse workers and delivery drivers. That may mean higher delivery fees, longer waiting times, perhaps even unions demanding better working conditions, further raising costs. Trust in influencers, particularly those paid big money to promote brands, is waning. Those making less may lose patience and stick to their day jobs. "The top 1% make a killing. The rest are starving artists," says PARKLU's Mr Whaley.

Perhaps the main reason Western firms have been slow to emulate Chinese e-commerce is not its inherent flaws but their overspecialisation. From Amazon's home in Seattle and Facebook's in Silicon Valley to Walmart's in Bentonville, American companies have tended to focus on their core business—be it e-commerce, social media or supermarkets. Only recently have they begun to invade each other's turf. In time that may lead to more blurring of business boundaries. As Eric Feng, Facebook's head of commerce incubations, summed it up at a recent virtual panel, tongue only slightly in cheek: "China, you are the light that will show us the way." ■

Telecommunications

The $90bn prize fight

NEW YORK

America's auction of 5G spectrum is turning into a blockbuster

IT MAY BE the most hyped technology since blockchain. But even sophisticated telecoms giants are now placing huge bets on 5G. In early December American regulators started the process of auctioning off radio-frequency bands needed to roll out superfast fifth-generation mobile networks. Industry experts had expected bids to come in at $25bn-30bn between them, less than the $45bn fetched in the last big 4G spectrum sale in 2015—but a tidy sum nonetheless.

In fact, when the first part of the auction was concluded on December 23rd, the bids had reached a staggering $70bn. The winners will be on the hook for "clearing costs" of another $13bn-15bn, in part to compensate satellite firms for giving up some of their spectrum that is particularly well-suited for 5G. The auction will resume on January 4th. By the time it ends, the proceeds may exceed $90bn.

At first blush, this seems like a classic case of overbidding by zealous telecoms firms chasing a shiny new technology. It could leave AT&T and Verizon, America's mobile-telephony giants, saddled with huge debts. New Street Research, a firm of analysts, reckons that the industry's overall debt will be between $45bn and $60bn higher than previously forecast.

There is an alternative view, however. As Jonathan Chaplin of New Street puts it, "it is almost impossible for carriers to overpay for this spectrum." This case rests on three arguments.

First, the specific frequencies on offer give firms their best chance to get "large swathes of contiguous spectrum needed for 5G to realise its full potential", points out Tom Wheeler, former chairman of the Federal Communications Commission, the agency supervising the auction. These frequencies, clustered around 3GHZ, enable transmission speeds ten times higher than 4G. The current, pseudo-5G offerings in lower frequencies are often barely faster than 4G connections. The new spectrum also supports 20-25% more capacity than bands of 2GHZ or lower.

The second justification for splurging on spectrum is to defend market share. T-Mobile, America's third-biggest provider, leapt ahead in 5G thanks to its recent acquisition of Sprint, a smaller rival endowed with desirable frequencies. For AT&T and Verizon the auction was "do or die", as one analyst puts it. For its part, T-Mobile may be entering stalking-horse bids to ensure bigger rivals do not win chunks of spectrum for a pittance. As Mr Wheeler notes, firms are asking "How do I keep my competitor from getting an advantage over me through his spectrum position?"

And competition is not confined to wireless rivals. Comcast and Charter, two large cable-television firms, have formed a joint venture to bid on 5G spectrum in the hope of taking on the incumbents. Dish Network, a big satellite-TV provider, is also taking part in the auction. Walter Piecyk of LightShed Partners, a research firm, adds that the bids are soaring because earlier, futile efforts at using inferior frequencies have left America far behind China, its main strategic rival, in the 5G race.

The final factor fuelling the bidding war is cheap money. Mr Piecyk reckons an extra $10bn in bids costs just $500m a year to finance at today's rock-bottom interest rates, which telecoms giants can easily afford. Or as Dish's boss, Charlie Ergen, puts it more colourfully: "They are printing money, but they aren't making more spectrum." ■

Podcasting

Sound investments

The expensive battle to be the Netflix of audio

ABOVE THE din of chat-shows, dramas and documentaries streamed to blaring voice-activated speakers, a louder sound can be heard: ker-ching. On December 29th Spotify, an audio-streaming service, aired the first in a series of exclusive podcasts by Prince Harry and Meghan Markle. A few weeks earlier the *Wall Street Journal* reported that Amazon was in talks to buy Wondery, a producer of popular podcasts including "Dirty John" and "Dr Death", for $300m. The tech giant, which got into podcasting only in September, has also signed up expensive stars such as Will Smith and DJ Khaled.

The deals are the latest in an industry-wide spree. Last year Daniel Ek, Spotify's boss, declared that "audio—not just music—would be the future" of his firm. Since then Spotify has been on a billion-dollar podcasting binge, acquiring production and ad-tech firms such as Gimlet, Anchor and Megaphone, as well as shows; in May it paid $100m for "The Joe Rogan Experience". Apple, the biggest podcast distributor, has bought Scout FM, a podcasting app, and signed up stars like Oprah Winfrey.

Podcasting makes most of its money through ads, which last year generated revenue of just $1.3bn, according to Omdia, a data firm—equal to 6% or so of the recorded-music industry's sales, or the box-office takings of one Hollywood blockbuster. Why the big noise about a small business?

One reason is growth. Global podcast listeners will exceed 2bn by 2025, Omdia reckons, from 800m in 2019. Ad sales may nearly treble, to $3.5bn. As giants hoover up shows, advertisers put off by fragmentation can buy many spots in one place.

Second, podcasts give audio-streamers a chance to own content, which they cannot do with music. Most of the world's tunes are owned by three record labels, which skim off about 70% of the streamers' revenues. No matter how much they grow, firms like Spotify find their costs grow with them. The fixed cost of acquiring a podcast means that growth can boost margins.

Last, the ability to own podcasts gives streaming services a way to differentiate themselves. In contrast to video-streamers, which compete on content, Spotify, Amazon and Apple offer roughly the same library of 40m songs. Artists, who see streaming mainly as a way to promote their more profitable live shows, have little incentive to be exclusive to one service. Original podcasts are a way to lure fans.

If their valuation model for podcasts is based on music catalogues, the streamers may be overpaying for some of them. Will Page, a former Spotify chief economist, notes that whereas back catalogues like Bob Dylan's, recently sold to Universal Music Group, are valuable because the songs are replayed for years, podcasts are perishable. "A podcast about Dylan is of its time; a Dylan song is timeless," he says.

Spotify's move into podcasting has helped its share price double this year. But rivals like Apple and Amazon, which offer bundles of audio, video, gaming and more, can attract stars with promises of a spin-off TV show or game. Tech giants can also lean on hardware: iPhones come with Apple's podcast app and Amazon's speakers default to Amazon Music. The battle for consumers' ears is only likely to get noisier. ■

Bartleby Tough breaks

Unused holidays are a problem for employers and employees alike

THE YEAR 2020 put worker morale to the test. It did not help that many employees were unable to enjoy a normal holiday, or had to change their plans. For Bartleby, two sun-drenched weeks in Spain were converted into a wet week in Cornwall, marked by an attempt to eat a pasty on the beach in the face of a sudden hailstorm. Finding a restaurant was virtually impossible because of the high demand created by the British government's "eat out to help out" scheme.

Like many people, Bartleby is left with unused annual leave. But he is lucky that *The Economist* is a benign employer, willing to let him carry over a couple of weeks. Not every company can afford to be so kind. The occasional loss of a business columnist is not much of a handicap. Things are rather different when the employee is the client manager for the firm's largest customer or the production manager at a microprocessor plant.

The more vital the worker, the more likely they will have been to be asked to postpone their annual leave in the pandemic. This may leave employers with headaches in the coming year as workers catch up before their unused holiday is lost. Brian Kropp of Gartner, a consultancy, expects to see the lion's share of staff shortages to land in the first half of 2021.

For multinational firms, the different rules and customs that apply across the world further complicate things. America lacks federal laws that guarantee workers vacation time; rules are down to individual states. Even when Americans do get a holiday allowance, 55% of them do not use all of it, according to a survey from 2018. In Japan only 52% of workers took all their paid leave that year.

Unlike their European peers, American and Japanese workers seem to succumb to social pressure: the fear that taking vacation reflects a lack of commitment to their job (or reveals their dispensability). Many American states also allow companies to impose a "use it or lose it" policy, under which they can insist employees cannot carry over unused leave into the following year. That may have prompted a lot of workers to take an extended Christmas break to avoid the loss of their precious allowance.

Still, wise employers may want to allow a little flexibility after what has been an extraordinarily difficult year. It is no good forcing people to turn up for work if, in the process, you inflict permanent damage on their well-being. Indeed, the evidence seems to suggest that workers put in extra effort in 2020, with those working from home adding an extra hour to their work day. They avoided the agonies of commuting but also lost the clear separation of work from home life, which probably added to stress. Some will have spent a "staycation" at home—which does not offer an invigorating change of scenery or routine for those who have been confined within the same four walls since March.

So there is a balance to be struck by employers between the need for adequate staffing and the need to keep on good terms with hard-working employees. In some countries, governments have intervened on workers' behalf. Under Britain's working-time regulations, employees were already entitled to carry eight days of leave over to the following year, if the employer agreed in advance. The rules were amended in 2020 to take account of covid-19, so a further four weeks could be carried over into 2021 and even 2022. The Chartered Institute of Personnel and Development, an association of HR managers, says this means that, in theory, workers can roll over all five weeks of leave from 2020. In Denmark the rules were changed to allow workers to roll over their unused holiday entitlements into 2021.

In Belgium companies often allow employees to carry over five days of leave but they have to be used by the end of March. Doug Gerke of Willis Towers Watson, a benefits consultant, says that many employers are willing to give workers even more flexibility. Likewise, he says, many European companies may have an official "use it or lose it" policy, but in practice they are reluctant to confront workers over the issue.

Mr Kropp says that some firms are asking employees to commit to the amount of leave they are planning to take in the first quarter of 2021, the better to forecast the staffing challenges they face. Others are extending "use it or lose it" deadlines to parcel out any absences over a longer period. Once the vaccines are distributed and travel is possible again airports could see a Gadarene rush. In 2021 managing people when they are not working will be just as important as managing them when they are.

The infrastructure infatuation

In the works

Governments and investors hope to stoke a global infrastructure boom, but they are terrible at making projects happen. Can that change?

IN THE 1920s the Lambert Flying Field in St Louis, Missouri, was a hive of innovation and celebrity. It became the first airport with a traffic-control system, waving flags at pilots. Charles Lindbergh flew airmail from it before making the first solo flight across the Atlantic. Today the airport is old, obscure and drab. So in 2017 it joined an experimental privatisation scheme, a key plank of President Donald Trump's effort to revamp America's infrastructure. By 2019, according to a confidential note seen by *The Economist*, a project to modernise it had attracted 18 bids from the great and good of the infrastructure-investment industry.

At the end of that year, however, the mayor of St Louis abruptly cancelled the project. Four days later the privatisation of the Jacksonville electric utility, in Florida, was also pulled, derailing another big public-private partnership (PPP). In both cases investors had spent tens of millions of dollars preparing bids. For one, the double whammy symbolises all that is wrong with America's infrastructure procurement. "It's Lucy and the football," he says, referring to a character in *Peanuts*, a comic strip, who torments Charlie Brown by holding a ball out to him, only to pull away as he goes to kick it, so he always falls on his bottom.

Such unpredictability could come back to bite governments, just as they promise an infrastructure boom. America's president-elect, Joe Biden, has pledged to spend $2trn on roads, bridges and electric-car charging points. Green projects make up 30% of the European Union's €750bn ($918bn) recovery fund. China has set aside 10trn yuan ($1.5trn) for new projects, and many Latin American and Asian governments plan to splurge. Yet most countries have struggled to realise such promises in the past. Can they succeed this time?

Covid-19 may temporarily divert funds: governments may need to bail out struggling urban-transport systems, for instance, meaning there is less to spend on other projects. But the pandemic also explains governments' enthusiasm for infrastructure: it can boost growth, both in the near term and further out. According to the IMF, increasing public investment by 1% of GDP across advanced and emerging economies would create 20m-33m jobs and lift GDP by 0.25-0.5% in the first year, and up to four times that after the second. It's about finding "quick wins", says Catherine McKenna, the infrastructure minister in Canada, which is bringing forward some of its 12-year, C$180bn ($140bn) plan, to create jobs. In the long term, spending could remove supply-side bottlenecks and make the economy more resilient to shocks.

It helps that, in the rich world, interest rates are low, allowing governments to finance investment sprees. And pension funds and insurers, starved of the safe yield they need to meet future liabilities, are eyeing the steady cashflows from infrastructure assets. Rajiv Shah, who runs the Rockefeller Foundation, which recently committed $1bn to renewables and health projects, says these forces together create an opportunity to "reshape the modern economy in many parts of the world".

This new faith in infrastructure is taking two forms. First, governments are fast-tracking funds for maintenance and upgrades. These have the advantage of being shovel-ready projects that do not get en- ▸▸

Also in this section

snared in long procurement processes, says Jean Bensaïd, infrastructure chief at France's finance ministry. One-fifth of his country's €100bn infrastructure plan aims to make buildings energy-efficient, revamp transport links and bolster care facilities. Moreover, the pool of potential projects is vast. Catching up on America's backlog of highway and bridge repairs, for example, would cost 3.5% of its GDP.

The second type of spending is on new capabilities. The pandemic's effect on remote working and e-commerce has shown the need for investing in digital infrastructure, such as fibre networks or data centres. McKinsey, a consultancy, estimates spending on these must rise by 6-11% annually over the next decade to match growing usage. Money is also going towards green projects, such as offshore-wind and electric-transport infrastructure.

All this is good news, given vast unmet needs. The Global Infrastructure Hub, a unit of the G20, reckons the world will need \$82trn of investment, in 2015 prices, by 2040. Based on trends at the end of 2019 it will muster \$69trn. Yet, keen as governments and investors are this time, they have struggled to get projects going before.

Signal failures

Infrastructure investment has been flagging for years. Public and private spending on "economic" infrastructure—transport, utilities and telecoms—fell from 3.8% of global GDP in 2013 to around 3.4% in 2019, reckons McKinsey. Spending on "social" infrastructure, a measure that includes schools and hospitals, has also declined.

The long view looks worse. In rich countries public investment, a proxy for infrastructure investment by governments, has declined from an average of 2.4% of GDP in the 1990s to less than 2% after 2010—a historic low, says Manal Fouad of the IMF. It has fallen in emerging economies too (see chart 1). Wear and tear means the public-capital stock has not kept pace with the economy. In the rich world, for instance, the stock, as a share of GDP, has fallen by nearly ten percentage points since 1992.

China is an exception. In 2019 it spent \$1.3trn on economic infrastructure—more than America and western Europe combined. Its public-capital stock rose from 154% of GDP in 1992 to 165% in 2017.

Not all of its spending was wise, though. In 2016 experts at Oxford University found that over half of its infrastructure investments "destroyed" economic value. Many generated less revenue than their cost of borrowing, leaving local governments with huge losses. The government has since sought to limit waste. Yet the jury is still out on whether the splurge was "economically destructive in aggregate", says Michael Bennon of Stanford University.

The story in America, by contrast, is one of too little spending. In 2017, the latest year for which figures are available, federal, state and local spending on infrastructure was 2.3% of GDP—a record low. Although some economists argue that America's roads are not in a bad way, other areas, from bridges to broadband, need serious funding. Even a partial shutdown of the 111-year-old Hudson River rail tunnel in New York, say, could cost the economy \$16bn over four years, according to the Regional Plan Association, a think-tank.

Political rows over execution have been a big obstacle. President Barack Obama's Recovery and Reinvestment Act, which earmarked \$133bn for infrastructure and energy projects in 2009, failed to greatly expand the capital stock, largely because it focused on small maintenance projects that could pass through Congress. Mr Trump's \$200bn plan was hobbled by disagreements over the distribution of cash.

Some hoped institutional capital could plug the gap. Worldwide, over 16,500 private infrastructure transactions have closed since 2015, with a big chunk done through specialist funds. These have raised \$710bn since 2008, according to *Infrastructure Investor*, a trade publication. A record \$220bn is still unspent. Surveys suggest investors want to commit yet more cash. Annual returns, at an average of 9% since 2010, have been good; meanwhile, commercial property, a rival alternative to bonds, has been rocked by lockdowns.

Out of greenfield

World, private investment in infrastructure deals

$bn

Source: IJGlobal and Global Infrastructure Hub

*New assets †Existing assets

The trouble is that most private investors prefer milking existing assets to building new ones: "secondary" deals have made up four-fifths of the total value of their infrastructure transactions in recent years (see chart 2). PPPs have fizzled. When these took off in the 1990s they were seen as offering the best of the public and private worlds. As investors put up the cash, governments did not need to fork out capital upfront, yet could still regulate the service and gain control of the assets at the end of the contract. Outside expertise, it was hoped, would lead to speedier execution. Investors, for their part, would gain from the state's ability to bear big risks, through subsidised insurance or guarantees.

Yet in Britain, the birthplace of the idea, the value of new PPPs fell to next to nothing in 2017. Even India, the world's top recipient of private investment in PPPs in 2008-12, has hit the brakes. Critics lambast them as being "too expensive, opaque, slow and rigid", says Georg Inderst, an adviser on infrastructure to institutional investors. Worldwide, private investment in new PPPs fell to \$30bn in 2019, from \$55bn in 2010 (see chart 3 on next page).

Why has building infrastructure been so hard? Experts point to three longstanding stumbling blocks: politics, poor execution and precarious funding. Start with politics. In democracies the need to unlock public funds, or reward private capital, means governments must run transparent, years-long processes that can overlap with several electoral cycles. "To proceed, a PPP needs hundreds if not thousands of supporters; but a handful of people can kill it," says the infrastructure boss of a Wall Street firm. Ideological shifts can derail entire programmes. After entering office in 2018, Andrés Manuel López Obrador, Mexico's president, cancelled most publicly tendered energy projects, preferring to work through state-owned utilities instead.

A second problem is faulty execution. ▸▸

In need of an upgrade

General-government capital stocks

Source: IMF

*Excluding China

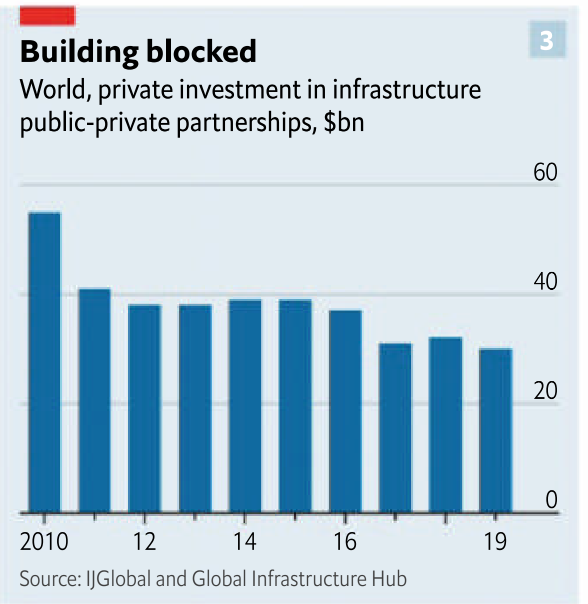
Many governments lack the skills or will to marshall projects. Hans-Martin Aerts of APG, a Dutch pension fund with €538bn in assets, laments a lack of "bankable deal-flow": grand announcements are seldom followed by detailed lists of projects. Misaligned incentives and poor monitoring often cause costs to swell. Nine out of ten mega-projects overrun their budget and schedule—by an average 70% and 61%, respectively. Harsh terms can lead bidders to accept wafer-thin margins and shoulder too much risk, prompting them to cut corners. Investors in Britain's Royal Liverpool Hospital lost their shirts after Carillion, its main contractor, collapsed in 2018. "It was in such bad shape, so badly built, that it was not viable," says Paul Smith of CMS, a law firm that tried to rescue the PPP.

Even when projects are completed, governments can move the goalposts. Frank Kwok of Macquarie, a bank that held a stake in an Asian airport group, says unstable regulation in some areas can create uncertainty for investors. Delayed increases to fees charged by airports in India, for instance, have made such investments seem risky, despite booming traffic.

A third reason why infrastructure plans are so hard to realise lies in the capital structure of many "greenfield" projects. They are often highly leveraged and dominated by construction firms, which want to sell out in two or three years, rather than long-term investors. Thin equity layers, coupled with short exit windows, leave little buffer to absorb shocks, says David Neal of IFM Investors, an asset manager owned by Australian pension funds. Rosy revenue forecasts worsen matters.

At first glance, none of this bodes well for the latest infrastructure craze. Yet governments and investors are wising up to common pitfalls, suggesting that past failures need not be repeated. No country has been perfect, but each could learn from the others. Governments could lure capital by tailoring contracts to provide more certainty. In 2009, for example, Britain started tendering the huge cables that link offshore wind farms to the coast, under a regime that gives investors a guaranteed return on costs. At the start "there were about four people in the room," says Gavin Tait of Amber Infrastructure, a fund manager. "Now there are hundreds." Elsewhere, bundling tiny projects under standardised contracts helps lower costs, says Matthieu Muzumdar of Meridiam, an asset manager.

Other countries strive to protect projects from politics. Canada has set up an arm's-length infrastructure bank, which crafts innovative financing schemes with the private sector. That has galvanised interest from American and British investors, says Ms McKenna, the minister. Australia's "asset-recycling" programme provided political cover for lucrative privatisations. Between 2014 and 2019, its federal government offered a 15% top-up to states selling assets if they used the proceeds to finance new projects.



Governments that start small and keep their word seem to whet investors' appetite for more ambitious plans. Colombia's road-concession scheme, which began in the 1990s, has lured in an expanding cast of international funds and developers. The fifth iteration, which will spend $15bn and also covers airports, is "the largest in Colombia's history", says Manuel Felipe Gutiérrez, who runs its infrastructure agency.

Smarter procurement is being matched by more enthusiasm from investors. It helps that digital and renewable assets are friendlier to private capital. There is a stronger political imperative to build them: whereas few people march to upgrade a road, climate change draws millions, says Jim Barry of BlackRock, an asset manager. They are often profitable, and so rely less on fickle state support. Most big wind and solar farms no longer need subsidies; the roll-out of 5G networks is financed by telecoms firms. And they are easier to build. Investors usually stay away from mega-projects because they are mind-bogglingly complex, but controlling costs on "mini-projects" like data centres is a piece of cake, says Adam Petrie of AMP Capital.


Will the boom stick?

Accordingly, investment has boomed. Connor Teskey of Brookfield, another asset manager, says its renewables portfolio has doubled over the past five years, to $50bn. Altogether the sector makes up 57% of infrastructure deals, up from 40% in 2010, according to Preqin, a data provider. The share of telecoms has tripled, to 9.3%.

The biggest change, though, is that investors are savvier. Once buyers of boring assets in secondary markets, the largest pension funds now want to build their own. This is partly out of necessity. As more capital goes towards infrastructure, brownfield assets attract fierce competition, making it hard to meet allocation targets. In 2013, for instance, CDPQ, a Canadian pension fund, acquired a portfolio of wind farms from Invenergy, an American developer. It then bought the firm itself, becoming America's second-biggest wind-farm developer, and has taken on Montreal's light-rail project. After snapping up Plenary Americas, a PPP developer, in March, it aims to double its portfolio to $60bn by 2025, mostly by building assets, says Emmanuel Jaclot, its infrastructure chief.

Winds of change

Investors are also paying attention to innovation. Macquarie, for instance, monitors new technology; it recently helped Cadent, a British gas-distribution firm that it owns, conduct pilot projects to inject hydrogen into its pipe network. Other investors are seeding joint ventures. Sidewalk Infrastructure Partners (SIP), a firm backed by Google and Ontario Teachers' Pension Plan, seeks to reimagine how cities work. Its first project, in Michigan, is a prototype of the road of the future, using cameras and sensors to fill the "dead space" between buses and trams with autonomous vehicles, says Jonathan Winer, its co-founder. Another involves "virtual" power plants that pay people to lower heating or dim their lights.

Smarter ways to invest, then, could help governments and investors realise their infrastructure ambitions this time. Still, projects can occasionally be wrecked. A cautionary tale comes from Sidewalk Labs, the Google unit from which SIP was spun out. In 2017 it was chosen to redevelop Toronto's waterfront. The plan had involved heated pavements and connected devices to monitor traffic—before local opposition killed it in May 2020. Investors and developers can look forward to landing on their backsides less often than Charlie Brown. But they can still be caught out. ■

America's jobs market

Speed limits

Will enduring unemployment slow America's economic recovery?

One of the biggest questions facing the world economy in 2021 is how fast America's labour market will recover. Optimists point to the rapid decline in the unemployment rate after the first wave of the pandemic—from nearly 15% in April to 6.7% in November—as a reason for a speedy recovery. Pessimists' go-to statistic is the high and rising rate of the long-term unemployed, those who have been out of work for more than six months. It has risen from 0.7% of the labour force in February to 2.5% today. The last time the figure was that high was in December 2013, when the labour market was recovering from the global financial crisis of 2007-09.

On average, the longer someone is unemployed, the harder it is for them to find work. In part that may be because the least productive workers, for whom the labour market is always an unwelcoming place, are more likely to experience long spells of unemployment during downturns. But spending months on the sofa also causes people's skills to atrophy. As a result, recessions inflict lasting scars on both workers and the economy.

How deep are the scars likely to be this time? Unemployment fell rapidly in 2020—and much more quickly than after the financial crisis—because millions of laid-off workers were recalled to their jobs in the summer and autumn. This was particularly true of jobs requiring face-to-face contact. Analysis by *The Economist* suggests that service occupations accounted for about a third of the jobs lost in the spring and about a third of the subsequent rebound. Employment among those aged 20-24, who might often work as waiters and bar staff, has recovered nearly 80% of its losses (see chart).

The picture for the long-term unemployed is less rosy, though. Nearly 30% of them say they are only temporarily laid off, but with each passing month it seems less likely that their jobs will return. The long-term unemployed are also more evenly spread across the economy. Service workers make up just over a quarter of the rise in long-term unemployment since February. Remarkably, though, they are outnumbered by professionals and managers. These account for a third of the recent rise in long-term unemployment, even though they are often said to have been immune to the downturn. Nor are the newly long-term unemployed especially young. More than half are over 45. Most are men. They look like a group that has suffered a normal recession rather than a service-sector hiatus.

Things appear gloomier still when you consider those who left the workforce altogether in the spring, meaning they stopped working and did not look for new jobs. Such "inactive" workers are not counted as unemployed. Jason Furman and Wilson Powell III of Harvard University reckon that a "realistic" unemployment rate, which adds many of them back in, is 8.5%. A study of the long-term unemployed by Alan Krueger of Princeton University, Judd Cramer of Harvard University and David Cho of the Federal Reserve in 2014 found that, counterintuitively, the long-term unemployed leave the workforce more readily during recoveries than in downturns; they seem to discover they are missing out on the rebound, and give up looking for work. If the same holds in 2021, labour-force participation could fall further.

The pessimists therefore have plenty of ammunition. Yet the optimists can fire back. Some 3.9m of the 5.7m people who have left the labour force since January cite the pandemic as the reason they are not looking for work, calculates Joseph Briggs of Goldman Sachs, a bank. Once it ends, they may return. In the years after Messrs Krueger, Cramer and Cho published their study, America's labour market heated up so much that employers searched far and wide for willing workers, hiring even ex-convicts, and the labour-force participation rate for 16- to 64-year-olds went up. If the economy recovers quickly enough, then its scars will probably heal. Some economists predict a spending spree in 2021 as the economy reopens fully and pent-up demand is unleashed.

But what must come first, the consumer-spending rebound, or labour-market healing? Lawmakers may have solved the chicken-and-egg problem. On December 27th President Donald Trump signed a bill that will inject $900bn (4.3% of GDP) in stimulus, sending cheques to households and extending benefits for the long-term unemployed (see United States section). The replacement of lost incomes could allow the unemployed to spend even as they search for work. And a rapid rise in consumption in 2021 should bring the labour market back to the boil—even, eventually, for the long-term unemployed. ■

Free exchange | A bug problem

China is intent on shrinking Ant. A lighter touch on fintech would be wiser

There are both petty and respectable explanations for China's assault on Ant Group. The fintech giant was less than 48 hours away from the world's biggest initial public offering when regulators halted it in November—the first in a series of moves aimed at taming the fast-growing firm. The petty is that Jack Ma, Ant's outspoken founder, had offended Chinese leaders with a blunt speech. The respectable is that the government needed to act because Ant threatened financial stability. As a state newspaper recently put it, Ant had become "too big to fail", presenting itself as a tech firm but pumping out loans. The petty explanation, to the extent that it is right, can be dismissed as a China-specific problem, a reflection of the Communist Party's tightening grip on tycoons. But the respectable explanation deserves a hearing, not least because of its global resonance. As Apple, Facebook and Google get into payments and more, the question of how to regulate Big Tech on its forays into finance will become all the more prominent.

The main charge against Ant is that it offers what can be described as consumer subprime with tech characteristics. Its model is to identify small borrowers—both individuals and businesses—and supply them with credit from banks. Ant's customers only ever interact with its sleek app, yet it is an intermediary. It provides funding for just 2% of the value of the loans it distributes, with the rest coming from banks and other firms. Ant, in effect, serves as their agent, feeding them a constant stream of clients. The concern therefore is that, like subprime-mortgage originators in America in the early 2000s, Ant does not have enough skin in the game. What would stop it from lending carelessly? China's response includes a draft rule that would require Ant to fund 30% of its loans, which would force it to hold more capital and slow it down. On December 27th the central bank also told Ant to return to its roots as a payments firm, a low-margin, low-risk business.

At first glance such measures may seem prudent. But there is a strong case to be made that lighter regulation would be the better approach. For a start, the parallel with subprime mortgages is not very good. Most of Ant's loans are small (as little as 20 yuan, or $3, for consumers), with a tenor of just a few months or so, and spread across many sectors. It thus relies on a constant churning of credit. If bad loans surge, banks can scale back almost instantly. That is a far cry from subprime mortgages, much larger loans that ran for many years and were, by definition, all tied to the property market.

Given how new fintech still is, detailed studies of its impact have emerged only recently. They highlight another problem with excessive regulation: fintech is good for the economy, and smothering it could limit its potential. Three points stand out. First, fintech firms reach borrowers under-served by banks. As banks normally vet loans on a case-by-case basis, they prefer large, established clients. Fintech firms go for just the opposite. Harold Hau of the University of Geneva and other researchers examined Ant's loan offers to 2.9m vendors on an e-commerce site. They found that 39% of vendors with low credit scores in cities with low amounts of bank lending accepted Ant's offers, as against only 17% of those with high credit scores in cities with more bank lending.

A similar pattern exists elsewhere. Researchers at the Bank for International Settlements (BIS) looked at 79 countries during 2013-19. Where banking sectors were less competitive and banks had less incentive to pursue smaller clients, fintech lenders grew larger. They also seem less likely to discriminate by race. A study of America's mortgage market found that minority customers had similar rejection rates to white ones when using fintech firms, but 6% more rejections than white people via face-to-face lenders.

As valuable as inclusion is, it would not prove sustainable if a large share of fintech credit went bad. Hence the importance of the second point: the bedrock of data and algorithms on which it is built. Ant, for one, includes hundreds of variables in its credit model, from users' friend networks to their consumption patterns. Before the pandemic, the delinquency rate on its loans to small businesses was about 2%, compared with 6% for banks. In a paper from 2019, Jon Frost, then of the Financial Stability Board, and other economists turned to a hard case—Argentina—to test the hypothesis that fintech firms have an information advantage over banks. Sure enough, they did. The loss rate for Mercado Libre, an e-commerce firm, on loans to high-risk clients was 2.8%, about the same as banks' loss rate on their best small-business clients.

Lastly, far from endangering the economy, fintech lending may actually bolster its resilience. Leonardo Gambacorta of the BIS and others have examined more than 2m Chinese firms that borrowed from both Ant and conventional banks. Bank credit was closely tied to local house prices; loan officers trust it both as collateral and as a shorthand for gauging economic health. Fintech credit was uncorrelated with house prices and instead linked to measures of business health such as transaction volumes. The upshot is that in a housing downturn, banks tighten credit to small firms, worsening economic pressure. By contrast, without property as collateral, fintech lending may be more stable, limiting contagion.

Friend or foe?

None of this is to deny that fintech could give rise to new problems. In making credit easily available, consumers can end up with too much debt. Firms may misuse the data they hoover up. Regulators must be vigilant against fraud, which plagued China's peer-to-peer lending industry a few years ago. And for well-run firms, monopoly is a serious risk. Once big enough, Ant could use its market power to block competitors and extract more profits.

Perspective is needed, though. Fintech is still in its infancy. Ant is by far the biggest of the upstarts globally, but the outstanding value of all the loans it has arranged amounts to less than 1% of the total assets held by China's commercial banks. At this stage prudent regulators would not rein it in, but give it room to run. ■

Covid-19

Variations on a theme

SARS-COV-2 is following the evolutionary rule book to perfection

NATURAL SELECTION is a powerful force. In circumstances that are still disputed, it took a bat coronavirus and adapted it to people instead. The result has spread around the globe. Now, in two independent but coincidental events, it has modified that virus still further, creating new variants which are displacing the original versions. It looks possible that one or other of these novel viruses will itself soon become a dominant form of SARS-COV-2.

Knowledge of both became widespread in mid-December. In Britain, a set of researchers called the Covid-19 Genomics UK Consortium (COG-UK) published the genetic sequence of variant B.1.1.7, and NERVTAG, a group that studies emerging viral threats, advised the government that this version of the virus was 67-75% more transmissible than those already circulating in the country. In South Africa, meanwhile, Salim Abdool Kalim, a leading epidemiologist, briefed the country on all three television channels about a variant called 501.V2 which, by then, was accounting for almost 90% of new covid-19 infections in the province of Western Cape.

Britain responded on December 19th, by tightening restrictions already in place. South Africa's response came on December 28th, in the wake of its millionth recorded case of the illness, with measures that extended a night-time curfew by two hours and reimposed a ban on the sale of alcohol. Other countries have reacted by discouraging even more forcefully than before any travel between themselves and Britain and South Africa. At least in the case of B.1.1.7, though, this has merely shut the stable door after the horse has bolted. That variant has now been detected in a score of countries besides Britain—and from these new sites, or from Britain, it will spread still further. Isolated cases of 501.V2 outside South Africa have been reported, too, from Australia, Britain, Japan and Switzerland.

So far, the evidence suggests that despite their extra transmissibility, neither new variant is more dangerous on a case-by-case basis than existing versions of the virus. In this, both are travelling the path predicted by evolutionary biologists to lead to long-term success for a new pathogen—which is to become more contagious (which increases the chance of onward transmission) rather than more deadly (which reduces it). And the speed with which they have spread is impressive.

The first sample of B.1.1.7 was collected on September 20th, to the south-east of London. The second was found the following day in London itself. A few weeks later, at the beginning of November, B.1.1.7 accounted for 28% of new infections in London. By the first week of December that had risen to 62%. It is probably now above 90%.

Variant 501.V2 has a similar history. It began in the Eastern Cape, the first samples dating from mid-October, and has since spread to other coastal provinces.

The rapid rise of B.1.1.7 and 501.V2 raises several questions. One is why these particular variants have been so successful. A second is what circumstances they arose in. A third is whether they will resist any of the new vaccines in which such store is now being placed.

The answers to the first of these questions lie in the variants' genomes. COG-UK's investigation of B.1.1.7 shows that it differs meaningfully from the original version of SARS-COV-2 in 17 places. That is a lot. Moreover, several of these differences are in the gene for spike, the protein by which coronaviruses attach themselves to their cellular prey. Three of the spike mutations particularly caught the researchers' eyes.

One, N501Y, affects the 501st link in spike's amino-acid chain. This link is part of a structure called the receptor-binding domain, which stretches from links 319 to 541. It is one of six key contact points that help lock spike onto its target, a protein called ACE2 which occurs on the surface membranes of certain cells lining the airways of the lungs. The letters in the mutation's name refer to the replacement of an amino acid called asparagine ("N", in biological shorthand) by one called tyrosine ("Y"). That matters because previous laboratory work has shown that the change in chemical properties which this substitution causes binds the two proteins together more tightly than normal. Perhaps tellingly, this particular mutation (though no other) is shared with 501.V2.

Golden spike

B.1.1.7's other two intriguing spike mutations are 69-70del, which knocks two amino acids out of the chain altogether, and P681H, which substitutes yet another amino acid, histidine, for one called proline at chain-link 681. The double-deletion attracted the researchers' attention for several reasons, not the least being that it was also found in a viral variant which afflicted some farmed mink in Denmark in November, causing worries about an animal reservoir of the disease developing. The substitution is reckoned significant because it is at one end of a part of the protein called the S1/S2 furin-cleavage site (links 681-688), which helps activate spike in preparation for its encounter with the target cell. This site is absent from the spike proteins of related coronaviruses, such as the original SARS, and may be one reason why SARS-COV-2 is so infective.

The South African variant, 501.V2, has only three meaningful mutations, and all are in spike's receptor-binding domain. Besides N501Y, they are K417N and E484K (K and E are amino acids called lysine and glutamic acid). These two other links are now the subject of intense scrutiny.

Even three meaningful mutations is quite a lot for a variant to have. Just one would be more usual. The 17 found in B.1.1.7 therefore constitute a huge anomaly. How this plethora of changes came together in a single virus is thus the second question which needs an answer.

The authors of the COG-UK paper have a suggestion. This is that, rather than being a chance accumulation of changes, B.1.1.7 might itself be the consequence of an evolutionary process—but one that happened in a single human being rather than a population. They observe that some people develop chronic covid-19 infections because their immune systems do not work properly and so cannot clear the infection. These unfortunates, they hypothesise, may act as incubators for novel viral variants.

The theory goes like this. At first, such a patient's lack of natural immunity relaxes pressure on the virus, permitting the multiplication of mutations which would otherwise be culled by the immune system. However, treatment for chronic covid-19 often involves what is known as convalescent plasma. This is serum gathered from recovered covid patients, which is therefore rich in antibodies against SARS-COV-2. As a therapy, that approach frequently works. But administering such a cocktail of antibodies applies a strong selection pressure to what is now a diverse viral population in the patient's body. This, the COG-UK researchers reckon, may result in the success of mutational combinations which would not otherwise have seen the light of day. It is possible that B.1.1.7 is one of these.

The answer to the third question—whether either new variant will resist the vaccines now being rolled out—is "probably not". It would be a long-odds coincidence if mutations which spread in the absence of a vaccine nevertheless protected the virus carrying them from the immune response raised by that vaccine.

This is no guarantee for the future, though. The swift emergence of these two variants shows evolution's power. If there is a combination of mutations that can get around the immune response which a vaccine induces, then there is a fair chance that nature will find it. ■

Toxicology

Double indemnity

A new approach may simplify the treatment of snake bites

SNAKE VENOM kills around 140,000 people a year and debilitates roughly 400,000 others. One reason for these large numbers is that every venom needs a specific antivenin to treat it. In places with rich ophidian faunas, dozens of antivenins may therefore need to be kept to hand.

Even if these are available, though, they are no guarantee of success. Someone who has been bitten may not have seen the assailant, or may be an unreliable witness. Only if the snake itself has been caught or killed can medics be sure what they are dealing with.

Snakes alive!

To make things worse still, administering the wrong antivenin may not merely be useless, but dangerous, for incorrect treatment sometimes provokes a further adverse reaction. In addition, antivenins themselves, which are made by injecting snake venom into large, robust animals such as horses and then collecting serum containing the antibodies generated, have to be kept refrigerated. Unfortunately, many of the tropical areas in which venomous snakes are abundant and diverse are also those where continuous supplies of electricity for refrigeration cannot be taken for granted. And, to cap things off, antivenins must be injected rather than being taken orally, so the person doing the injecting requires at least a modicum of training.

This, then, is a field that seems ripe for disruption. An ideal antivenin should be universal, thermally stable and orally administered. All three of these desiderata suggest abandoning the antibody approach and trying instead to find small-molecule drugs that will do the job. And disruption may be at hand in the person of Nicholas Casewell of the Liverpool School of Tropical Medicine, in Britain. As he reports in *Nature Communications*, Dr Casewell thinks he has found an antidote that is indeed stable and orally administered. It is not, admittedly, universal. But it does seem to work against the toxins of an entire family of snakes—the Viperidae, or vipers—that are responsible for more than half of snakebite deaths.

Though viper venoms, like those of other snakes, vary between species, they have a common theme. Roughly half the toxins in them belong to one of two groups of enzymes—the Zn^{2+} metalloproteinases or the phospholipase A2s. It is these enzymes in particular that seem responsible for the extensive tissue damage and haemorrhaging which make viper bites so deadly. Drugs that mop up or neutralise Zn^{2+} metalloproteinases and phospholipase A2s might thus act as effective antivenins for viper bites. So Dr Casewell and his colleagues decided to look for some.

A search of the literature yielded three promising candidates. One, varespladib, is an inhibitor of phospholipase A2s used to treat a range of inflammatory diseases. The second, marimastat, was once tested as an anticancer agent. It proved ineffective for that purpose, but did inhibit circulation of Zn^{2+} metalloproteinases. The third, 2,3-dimercapto-1-propanesulfonic acid (DMPS), is employed to treat heavy-metal poisoning and is good at eliminating Zn^{2+} metalloproteinases.

To test their findings, Dr Casewell and his team injected a group of mice with venoms from a range of Viperidae that often kill people. These included saw-scaled vipers from west Africa and South Asia; Russell's viper, also from South Asia; the African puff adder; and the fer-de-lance from Central America. They left some mice to their fate, as controls. The others received one or more of the putative antivenins.

The control mice all died within an hour. Those receiving a single drug did little better. Most keeled over within six hours. Combinations containing DMPS were patchily effective, protecting against some venoms but not others. But mice dosed with a combination of varespladib and marimastat lived on indefinitely.

That is encouraging. And both varespladib and marimastat are thermally stable and have passed human safety trials as lone prescriptions, so testing them in combination on people should be easier than if they were fresh out of a laboratory.

There is still, however, a fair amount of lab work to be done before any such trial might be contemplated. In particular, the experiments so far have injected the drugs rather than administering them orally. Though they are given by mouth when offered to people for other purposes, their efficacy against snake venom when delivered this way would need to be established. But if the therapy Dr Casewell and his colleagues hope they have discovered does prove effective in people, then it will greatly simplify the treatment of snake bites. In the meantime, they are looking to simplify things still further by doing for another snake family, the Elapidae, what they have done for the Viperidae, and ransacking the pharmacopoeias for promising broad-spectrum treatments. The Elapidae include such charmers as the king cobra and the black mamba. More power, then, to the researchers' elbows. ■

Recycling

From Clochemerle to a compost heap

A possible use for the ultimate waste product

URINE, THOUGH distained by modern society, was once surprisingly useful stuff. Street-facing laundries in ancient Rome had pissoirs attached to them, to encourage passers-by in need of relief to provide, free of charge, a raw material which was then fermented into a degreasing agent. Urine also found employment as a mordant, to assist in the dying of cloth—Scottish tweed was once notorious for smelling of the stuff when it got wet. And urine was, too, a source of potassium nitrate, one of the ingredients of gunpowder.

Now, Chen Wei-Shan of Wageningen University, in the Netherlands, thinks he has found yet another use for urine—and one relevant to today's needs rather than yesterday's. He plans to employ it to create heat without fire from waste wood.

Burning wood is a good source of heat and it can be seen as sound from the point of view of greenhouse gases. That is because the carbon dioxide released into the atmosphere came thence in the first place, and would return there anyway if the wood in question were simply allowed to rot. But wood fires also bring environmental disbenefits, for they give off sulphur dioxide, carbon monoxide and other noxious gases along with that CO_2.

Researchers have therefore been looking for ways to release wood's latent heat by

A monument to Imperial Rome

composting rather than combustion. Unfortunately, unlike other stuff that is routinely composted (dung and waste food, for example) wood does not, by itself, contain a wide enough range of nutrients to sustain the relevant micro-organisms. To digest it, these bugs need dietary supplements. And those—things like ammonium chloride—are too expensive for everyday use.

But urine is cheap—or would be, if routine ways of collecting it existed. And it contains large quantities of nitrogen and potassium (as its use in gunpowder demonstrates) and also of phosphorus (an element that was, as it happens, discovered by an alchemist trying to extract gold from urine). These are all nutrients which composting bugs need to thrive. So, as he writes in *ACS Sustainable Chemistry & Engineering*, Dr Chen decided to give it a go.

To this end, he and his colleagues added urine to kiln-dried ash wood and composted the result in glass bottles. Some of this urine was actually a synthetic version, so that its composition was known precisely. The rest was donated by a 28-year-old man who had been medication-free during the previous two years. Both the artificial and the natural urine were diluted, to various degrees, during the process of testing.

The team found that oxygen consumption, wood consumption and heat production all rose rapidly in the jars during the experiment's first week. Once things had settled, though, it was clear natural urine had something going for it which synthetic urine did not. The best synthetic-urine dilution (one part in five parts of water) resulted in a 13% loss of mass of wood after 40 days. The best natural urine dilution (one part in 8.5) brought about a 20% loss.

Why natural urine is more effective than the artificial stuff at the task Dr Chen set it remains unclear. He speculates that it is because natural urine is slightly more acidic, and that this matters to some of the relevant bugs. Which ones in particular, however, he has yet to work out.

Previous experiments suggest that compost-heaps of wood fed suitable nutrients can sustain internal temperatures of 40-55°C for long periods. That is high enough to be useful for heating buildings and, with a bit of a boost, perhaps for providing hot water as well. To commercialise the idea would mean designing a suitable reactor and heat exchanger, but the waste-wood fuel would be cheap. How you would go about gathering the necessary urine in bulk, given the expense of installing a network of suitably dedicated collection points, is not clear. But governments contemplating doing so might be heartened by the fact that, in Rome, the Emperor Vespasian slapped a lucrative tax on the city's urinals—something once commemorated in France by the slang name for an old-fashioned pissoir: "une vespasienne". ■

After the pandemic

The big picture

Four authors consider how covid-19 will change the world

In "The Seventh Seal", a film by Ingmar Bergman, a knight returns from the crusades to find his homeland ravaged by the plague. Suffering and devastation have shaken his faith in God. When Death comes for him, the crusader proposes a game of chess in order to eke out enough time to commit one act—any act—that might bring meaning amid the pestilence.

In the teeth of a scourge on the scale of covid-19, the impulse to draw significance from suffering is again strong. However, as is clear from the first of what will surely be shelf-loads of books about the coronavirus, in a secular age a pandemic is principally seen not as a question of inscrutable divine will, but as a test of earthly powers.

All these books have to grapple with the problem that they were written amid great uncertainty. Even now much about covid-19 is still unknown—not just when the pandemic will end and what it will leave behind, but also about the nature of the virus itself. These authors are thus attempting to write the review before the final reel has been loaded into the projector.

Apollo's Arrow. By Nicholas Christakis. *Little, Brown Spark; 368 pages; $29 and £20*
Is It Tomorrow Yet? By Ivan Krastev. *Penguin; 80 pages; £10.99*
Ten Lessons for a Post-Pandemic World. By Fareed Zakaria. *W.W. Norton; 320 pages; $26.95. Allen Lane; £20*
Post Corona. By Scott Galloway. *Portfolio; 256 pages; $25. Bantam Press; £18.99*

The most successful is "Apollo's Arrow" by Nicholas Christakis, a doctor and sociologist at Yale. He deals with uncertainty by looking back, using history, epidemiology and sociology to put covid-19 in context. This is the book if you want to understand about flattening the curve and herd immunity, or how America's response fell short in those critical early months of the pandemic because of Trumpian politics, bureaucratic turf wars and the failure to create enough reliable testing.

Dr Christakis's title refers to the pestilence that Apollo visited upon the Greeks for enslaving the daughter of a Trojan priest. And, sure enough, he lays out a litany of human failings—chief among them the struggle to learn from the past. Pandemics are an old enemy that has scarred humanity, but once they abate, he writes, people tend to put the search for meaning aside, pick up their lives and party.

Other authors seek to draw more ambitious conclusions. Yet, because they are erecting their arguments on half-built foundations, they risk being highly speculative. Ivan Krastev, for instance, is a Bulgarian political scientist and a master of the brilliant epigram. In his extended essay on covid-19 he observes how "the strangeness of the pandemic experience is that everything changes but nothing happens", and how in normal times the elites can afford to travel whereas, "in the time of covid-19, they can afford to stay at home".

In between pithy observations, Mr Krastev deals with the theme of whether this disease could be the destruction of the European Union—or perhaps its making. When Italians and Spaniards were dying by the thousand, the EU seemed as relevant as the Holy Roman Empire had been when its subjects were unaware that they were even part of it. He worries that populists, despite having a bad pandemic, will come storming back when it is over. But, he goes on to argue, the virus has also taught Europeans that to be safe in a dangerous world, they must stick together—while the EU's failure has spurred governments to opt for greater integration. Mr Krastev calls this "the great paradox of covid-19". Readers may think he is having it both ways.

And yet, if analysts seek to avoid too ▸▸

much speculation, they risk being conventional. That is because when the future is extremely uncertain the safest approach is often to extrapolate from the present.

At least, that is the path taken by Fareed Zakaria, a television host and pundit in America. His "Ten Lessons for a Post-Pandemic World" begins with a rousing warning that this pandemic "is *new*, upturning many of our daily patterns and presumptions". But his lessons mostly confirm the things that many commentators—including *The Economist*—were worrying about before the pandemic: the rivalry between America and China, the potency of the digital revolution and the effects of inequality.

Struggling to be born

Mr Zakaria is a skilful and sober guide on this whistle-stop tour. Along the way, he makes some wise observations: that cities will not fade, because urban life is too rewarding; that globalisation is not dead, because it is too valuable; that experts have their place, so long as they listen to non-experts. But these reasonable points, too, undermine the breathless promise with which the book begins.

Scott Galloway, an entrepreneur and professor at New York University, narrows his field to the coronavirus and business. He conceives of it as a source of disruption and a bringer of rapid change. This allows him to rehearse his theories about the state of business—how products are replacing brands, and how companies are having to choose between selling products at a profit (as Apple does) or selling their users to other businesses (as Google does). Mr Galloway is entertaining and informative on how companies deal with crises, and on the ripeness of health care and university education for disruption. Somehow, though, you get the impression that these were all things he believed before people began to fall ill in a wet market in Wuhan.

One point of agreement among these authors is that government must change—which is also the focus of "The Wake-Up Call", written by our former editor, John Micklethwait, and our Bagehot columnist, Adrian Wooldridge. And, indeed, few would be against governments that help create a fairer society while also being more effective and smaller. But that is a manifesto rather than a prediction.

The lesson from Bergman is that, when mankind is faced with great suffering, meaning often lies in small things. At the end of the film, when the knight is on the verge of defeat, he distracts Death for a moment by knocking over the chessboard. This gives a minstrel couple, who in an act of kindness had fed him milk and wild strawberries, the chance to escape with their baby—and live. The post-pandemic world will take time to emerge. Chances are that it will first be found in the details. ■

Ethiopian music

The beat goes on

Ethio-jazz is a product of migration and heroic ingenuity

TO WESTERN EARS, the music seems both foreign and familiar. Its mood stretches from sultry and haunting to upbeat and vibrant. Soulful Western undertones are audible, yet the overall impression is distinctly and inimitably Ethiopian. Now a rich musical export, the evolution of "Ethio-jazz", as this hybrid genre is known, and its growing global renown are a tale of back-and-forth migration and the alchemical fusion of ideas. The dramatic saga involves political upheaval, accidental epiphanies, a series of dogged and inspired individuals—and Hollywood.

Today, says Samuel Yirga, a pianist and composer, Ethio-jazz is a calling and way of life for many Ethiopian musicians. In 2020 there were new releases from stars of the genre including Mulatu Astatke (pictured), a visionary percussionist and keyboardist, and Hailu Mergia, an accordionist and band leader. "Sons of Ethiopia", a cult classic of 1984 by the band Admas that mixes pop, funk and jazz, has just been re-released. Yet the story of the mesmeric sound began almost a century ago, in Jerusalem.

Visiting that city in 1924, the leader who would later become Emperor Haile Selassie was greeted by a brass band, which was made up of orphaned survivors of the Armenian genocide. He was impressed, and promptly invited the musicians to live in Ethiopia, along with their band leader, Kevork Nalbandian. There the group was known as "Arba Lijoch", Amharic for "The Forty Children".

Mulatu's magic touch

The arrival of Arba Lijoch in Addis Ababa was a revolutionary moment in the country's cultural history. An indigenous musical tradition based on stringed instruments began to morph into one revolving around large brass bands. Nalbandian went on to compose the Ethiopian national anthem and to teach musicians from around the country. Later his nephew, Nerses Nalbandian, took on his mission, training performers including future giants of modern Ethiopian music such as Alemayehu Eshete and Tilahun Gessesse, both renowned singers. In Addis Ababa, says Aramazt Kalayjian, a film-maker, the younger Nalbandian is known as "the godfather" of modern Ethiopian music.

World music

This formative period was the overture to the pivotal career of Mulatu, the next key figure in the story. Unusually for the era, in the late 1950s Mulatu was educated not in Africa but in Wales, afterwards studying music in London and Boston. But it was in the mid-1960s in New York, where he encountered John Coltrane and other musicians, that he honed a new sound that he called Ethio-jazz—a marriage between the distinct pentatonic scales that define most traditional Ethiopian music and the kind that are the basis of most Western music. The result, as summarised by Ermanno Becchis, a producer, "is sinuously scientific, but truly magical".

Mulatu returned home to Ethiopia—and in the late 1960s and 1970s its capital earned the nickname "Swinging Addis". Nightlife flourished in a musical golden age, as did pioneering record labels such as Amha Records. "People were having the time of their lives," Amha Eshete, the label's founder, recalls in a documentary about the period. Then, in 1974, Ethiopia's monarchy was overthrown by a Marxist junta known as the Derg, which imposed new rules and curfews.

"The Derg's policies shut down most musical performances in Ethiopia between 1974 and 1991 and cut off contact with European and American popular-musical styles," explains Kay Kaufman Shelemay of Harvard University. Many artists went into exile; the emerging scene was quashed. Or so it seemed.

Like its birth, the revival of Ethio-jazz came about through travel and serendipity. At a party in Poitiers in the mid-1980s Francis Falceto, a French producer and musicologist, happened to hear the recorded voice of Mahmoud Ahmed, an Ethiopian singer. The Derg regime was "a musical nightmare", laments Mr Falceto, the tale's next hero. But in 1991 the junta was overthrown—and Mr Falceto could embark on his self-appointed mission to share modern Ethiopian music with the world. In 1997 he released the first volume of an anthology called "Éthiopiques".

Thirty more volumes have followed; the next, number 32, will be called "Nalbandian the Ethiopian" and commemorate Nerses Nalbandian, Mr Falceto says. Although, by his own account, he is "getting old and a bit tired", he hopes to put out four or five more volumes. But his series has already transformed the fortunes of Ethiopian artists. The fourth volume, featuring Mulatu, definitively put Ethio-jazz on the world map. After its release, Jim Jarmusch, a film director, used Mulatu's music on the soundtrack for "Broken Flowers", an award-winning film of 2005. The movie, says Ms Kaufman Shelemay of Harvard, brought Ethio-jazz to the ears of an even wider international audience.

For some outsiders, Ethiopia is predominantly associated with political strife—such as the bloody military action recently launched by the government in the Tigray region—and humanitarian crises. But another version of the country still thrums from the bars of Addis Ababa to the stages of Glastonbury. Hip-hop artists such as Kanye West have sampled Ethio-jazz on their tracks; the country's music schools continue to produce innovative performers. And a new generation of expatriate musicians has helped popularise a genre rooted in Africa but nurtured around the world. "For people newly coming to it," says Berhana, a singer based in America, "I love that it serves as an introduction to a music and culture that runs so deep." ■

Johnson Nice weather we're having

With luck, 2021 will bring more opportunities for mindless small talk

FORD PREFECT, an alien passing for a human in "The Hitchhiker's Guide to the Galaxy", wonders about earthlings' peculiar "habit of continually stating and repeating the very very obvious, as in 'It's a nice day,' or 'You're very tall'." He considers, then rejects the theory that human mouths seize up if not continually utilised, before concluding that if human beings "don't keep on exercising their lips...their brains start working."

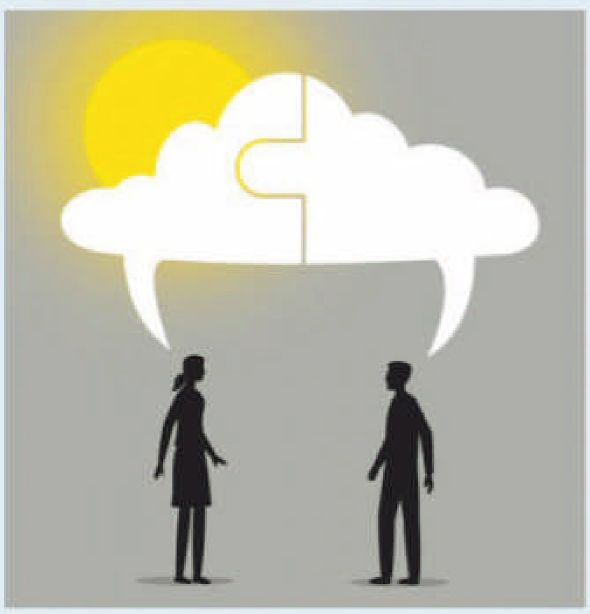
With this observation the late Douglas Adams expressed a common high-flown opinion about small talk: it is trivial, or perhaps worse, a substitute for real speech and thought. "Should we talk about the weather?" sings Michael Stipe of REM in "Pop Song 89". "Should we talk about the government?" Listeners are given to understand that little could be emptier than "Hot out today, isn't it?", or a casual political gripe.

Yet at the end of a year in which people around the world have mostly been deprived of face-to-face banter—and were forced under lockdown to concentrate on work, or on more intense conversations with family and close friends—many report feeling tired, bored, alienated and lonely. With luck, in 2021 more people will be back on trains and buses, and in offices, shops and restaurants—places where they will again engage in empty chatter. Research suggests they will benefit.

Nicholas Epley, a psychologist at the University of Chicago, undertook a study in the city in which a third of subjects had to strike up conversations on their commutes. (Two other groups were to stay silent or, acting as a control, to behave as normal.) Though many expressed horror at being required to disturb a stranger, those who did were happier than the other two groups. Lest you think this applies only to the garrulous, the moods of both self-described introverts and extroverts were boosted by a chat. A repeat of the experiment found almost exactly the same effects in England, supposedly an emotionally repressed sort of place. Mr Epley points out that even those who say they would themselves benefit from a friendly natter tend to underestimate how much others would enjoy one, too—meaning such chats are less likely to happen, a loss for everyone.

One reason for small talk's bad reputation is that it tends, for obvious reasons, to aim for the lowest common denominator. In ritualised dialogue, little information is exchanged. "Hello" signals nothing at all. "How are you?" rarely yields a fully honest answer. A perfectly logical or instrumental exchange, perhaps on Ford Prefect's planet near Betelgeuse, would jump right into a debate about string theory or the riddle of consciousness.

Back on Earth, linguists call that crucial "hello" talk "phatic". Bronislaw Malinowski, who coined the term in the 1920s, explained that in phatic talk "ties of union are created by a mere exchange of words." If you know literally nothing about someone you can still safely presume they prefer sun to rain, and begin to establish a connection on that basis. If your bus or train is suddenly stuck, an even better opportunity arises. You can be sure your fellow passengers are not happy about it, and a shared grousing session makes them—and you—feel less alone with your inconvenience.



At work, small talk may seem a distraction from what employees are paid to do. But there is a spectrum between empty talk ("Hello"), social talk ("How was your holiday?"), social talk relevant to work ("Is Sarah still on holiday?") and pure business talk ("Has Sarah finished that report?"). A study of government departments in New Zealand by Janet Holmes shows how frequently people switch between those modes, even in brief conversations. That suggests a function beyond filling awkward gaps. Among other things, such chatter can bond equals together in a shared task. She also finds that bosses are more likely to initiate small talk with subordinates than the other way round (as well as to cut it off). This is because, even without being told, a good manager realises that it can soften a subsequent instruction.

Fans of "Star Trek" know that the Vulcans, even more than Adams's Betelgeusians, are the most logical beings in the known universe. But how do they take leave of each other? Not by coldly walking away, their business done. They exchange a ritualised "Live long and prosper." This is, strictly speaking, meaningless: the other Vulcan would naturally aim to do so without being told. But well-wishing binds people together, and thus has a value that even a Vulcan can see. Not so illogical after all.

Economic & financial indicators

Economic data

	Gross domestic product % change on year ago latest		quarter*	2020†	Consumer prices % change on year ago latest		2020†	Unemployment rate %		Current-account balance % of GDP, 2020†	Budget balance % of GDP, 2020†	Interest rates 10-yr gov't bonds latest,%	change on year ago, bp	Currency units per $ Dec 29th	% change on year ago
United States	-2.8	Q3	33.4	-3.7	1.2	Nov	1.2	6.7	Nov	-2.3	-14.9	0.9	-94.0	-	
China	4.9	Q3	11.2	1.9	-0.5	Nov	2.4	4.2	Q3§	1.3	-5.2	3.0 §§	14.0	6.53	7.2
Japan	-5.7	Q3	22.9	-5.3	-1.0	Nov	0.1	2.9	Nov	2.6	-11.3	nil	-8.0	104	5.8
Britain	-8.6	Q3	81.1	-11.3	0.3	Nov	1.0	4.9	Sep††	-1.5	-19.6	0.4	-43.0	0.74	2.7
Canada	-5.2	Q3	40.5	-5.8	1.0	Nov	0.7	8.5	Nov	-1.7	-13.5	0.7	-89.0	1.28	2.3
Euro area	-4.3	Q3	60.0	-7.5	-0.3	Nov	0.3	8.4	Oct	2.6	-9.1	-0.6	-32.0	0.82	9.8
Austria	-4.0	Q3	54.6	-6.7	1.3	Nov	1.1	5.4	Oct	1.4	-8.0	-0.4	-40.0	0.82	9.8
Belgium	-4.5	Q3	54.2	-7.9	0.4	Dec	0.4	5.1	Oct	-1.2	-9.6	-0.3	-42.0	0.82	9.8
France	-3.9	Q3	98.3	-9.2	0.2	Nov	0.5	8.6	Oct	-2.3	-11.3	-0.3	-36.0	0.82	9.8
Germany	-4.0	Q3	38.5	-5.4	-0.3	Nov	0.4	4.5	Oct	6.9	-7.0	-0.6	-32.0	0.82	9.8
Greece	-9.6	Q3	9.5	-9.0	-2.1	Nov	-1.4	16.1	Sep	-4.0	-8.2	0.6	-85.0	0.82	9.8
Italy	-5.0	Q3	80.4	-9.1	-0.2	Nov	-0.1	9.8	Oct	2.6	-11.0	0.5	-84.0	0.82	9.8
Netherlands	-2.5	Q3	34.8	-4.4	0.8	Nov	1.1	3.8	Mar	7.2	-6.0	-0.5	-41.0	0.82	9.8
Spain	-9.0	Q3	83.6	-11.4	-0.8	Nov	-0.2	16.2	Oct	0.6	-11.0	0.1	-33.0	0.82	9.8
Czech Republic	-5.2	Q3	30.7	-6.6	2.7	Nov	3.2	2.9	Oct‡	1.2	-7.8	1.3	-36.0	21.5	6.4
Denmark	-3.8	Q3	22.6	-4.0	0.5	Nov	0.4	4.6	Oct	8.5	-4.8	-0.5	-24.0	6.08	10.0
Norway	-0.2	Q3	19.7	-1.7	0.7	Nov	1.4	5.2	Oct‡‡	3.2	-1.3	1.0	-53.0	8.62	2.3
Poland	-1.8	Q3	35.5	-3.4	3.0	Nov	3.4	6.1	Nov§	2.6	-7.9	1.3	-84.0	3.71	3.0
Russia	-3.4	Q3	na	-3.8	4.4	Nov	3.3	6.1	Nov§	1.9	-4.3	6.2	-24.0	73.9	-15.9
Sweden	-2.7	Q3	21.2	-3.2	0.2	Nov	0.4	7.7	Nov§	4.2	-3.6	nil	-7.0	8.20	14.0
Switzerland	-1.6	Q3	31.9	-3.0	-0.7	Nov	-0.9	3.4	Nov	9.2	-3.7	-0.5	-5.0	0.89	10.1
Turkey	6.7	Q3	na	-3.6	14.0	Nov	12.1	12.7	Sep§	-4.5	-5.1	12.5	57.0	7.38	-19.2
Australia	-3.8	Q3	14.0	-4.1	0.7	Q3	0.7	6.8	Nov	0.8	-7.9	1.0	-34.0	1.31	9.2
Hong Kong	-3.5	Q3	11.8	-5.6	-0.2	Nov	0.4	6.3	Nov‡‡	5.6	-6.0	0.8	-97.0	7.75	0.5
India	-7.5	Q3	125	-7.9	6.9	Nov	6.7	6.5	Nov	1.0	-7.8	5.9	-57.0	73.4	-2.8
Indonesia	-3.5	Q3	na	-2.2	1.6	Nov	2.0	7.1	Q3§	-1.4	-7.1	5.9	-118	14,130	-1.3
Malaysia	-2.7	Q3	na	-5.3	-1.7	Nov	-1.1	4.7	Oct§	4.8	-7.2	2.7	-66.0	4.05	2.0
Pakistan	0.5	2020**	na	-2.8	8.3	Nov	9.6	5.8	2018	-0.2	-8.0	9.9 †††	-107	160	-3.4
Philippines	-11.5	Q3	36.0	-9.3	3.3	Nov	2.6	8.7	Q4§	0.5	-7.7	3.0	-147	48.0	5.5
Singapore	-5.8	Q3	42.3	-6.0	-0.1	Nov	-0.3	3.6	Q3	18.0	-13.9	0.8	-86.0	1.33	1.5
South Korea	-1.1	Q3	8.8	-1.1	0.6	Nov	0.5	3.4	Nov§	3.8	-5.7	1.7	1.0	1,092	6.3
Taiwan	3.9	Q3	16.6	2.4	0.1	Nov	-0.3	3.8	Nov	13.7	-1.5	0.3	-36.0	28.1	7.1
Thailand	-6.4	Q3	28.8	-6.1	-0.4	Nov	-0.8	2.1	Oct§	3.6	-6.3	1.2	-27.0	30.0	0.4
Argentina	-10.2	Q3	61.7	-10.7	35.8	Nov‡	42.2	11.7	Q3§	2.0	-8.0	na	-464	84.0	-28.7
Brazil	-3.9	Q3	34.6	-4.5	4.3	Nov	3.2	14.3	Oct§‡‡	-0.8	-15.8	2.2	-242	5.19	-21.8
Chile	-9.1	Q3	22.6	-5.9	2.7	Nov	3.1	11.6	Oct§‡‡	1.7	-8.2	2.7	-53.0	713	4.5
Colombia	-9.5	Q3	39.6	-7.7	1.5	Nov	2.5	14.7	Oct§	-3.7	-8.8	4.9	-121	3,478	-5.4
Mexico	-8.6	Q3	58.0	-8.9	3.3	Nov	3.4	4.6	Nov	2.3	-4.5	5.2	-163	19.9	-5.3
Peru	-9.4	Q3	187	-12.0	2.1	Nov	1.8	14.2	Nov§	-0.1	-8.0	3.5	-66.0	3.62	-8.0
Egypt	0.7	Q3	na	3.6	5.7	Nov	5.1	7.3	Q3§	-3.4	-7.9	na	nil	15.7	2.0
Israel	-1.5	Q3	38.9	-4.0	-0.6	Nov	-0.6	4.8	Nov	3.8	-11.1	0.8	-6.0	3.22	7.5
Saudi Arabia	0.3	2019	na	-4.2	5.8	Nov	3.5	9.0	Q2	-3.9	-10.9	na	nil	3.75	nil
South Africa	-6.0	Q3	66.1	-7.2	3.2	Nov	3.2	30.8	Q3§	-2.1	-16.0	8.9	70.0	14.7	-4.4

Source: Haver Analytics. *% change on previous quarter, annual rate. †The Economist Intelligence Unit estimate/forecast. §Not seasonally adjusted. ‡New series. **Year ending June. ††Latest 3 months. ‡‡3-month moving average. §§5-year yield. †††Dollar-denominated bonds.

Markets

In local currency	Index Dec 29th	% change on: one week	Dec 31st 2019
United States S&P 500	3,727.0	1.1	15.4
United States NAScomp	12,850.2	0.3	43.2
China Shanghai Comp	3,379.0	0.7	10.8
China Shenzhen Comp	2,258.4	-0.3	31.1
Japan Nikkei 225	27,568.2	4.3	16.5
Japan Topix	1,819.2	3.3	5.7
Britain FTSE 100	6,602.7	2.3	-12.5
Canada S&P TSX	17,543.4	-0.1	2.8
Euro area EURO STOXX 50	3,581.4	2.4	-4.4
France CAC 40	5,611.8	2.7	-6.1
Germany DAX*	13,761.4	2.6	3.9
Italy FTSE/MIB	22,259.4	1.9	-5.3
Netherlands AEX	629.1	1.9	4.1
Spain IBEX 35	8,174.8	3.0	-14.4
Poland WIG	57,701.4	4.7	-0.2
Russia RTS, $ terms	1,398.5	3.5	-9.7
Switzerland SMI	10,682.0	2.7	0.6
Turkey BIST	1,459.7	3.9	27.6
Australia All Ord.	6,962.1	1.7	2.3
Hong Kong Hang Seng	26,568.5	1.7	-5.8
India BSE	47,613.1	3.5	15.4
Indonesia IDX	6,036.2	0.2	-4.2
Malaysia KLSE	1,635.0	0.2	2.9

	index Dec 29th	% change on: one week	Dec 31st 2019
Pakistan KSE	43,255.6	0.8	6.2
Singapore STI	2,848.1	0.7	-11.6
South Korea KOSPI	2,820.5	3.2	28.3
Taiwan TWI	14,472.1	2.1	20.6
Thailand SET	1,462.0	2.6	-7.5
Argentina MERV	51,320.1	1.8	23.2
Brazil BVSP	119,409.1	2.4	3.3
Mexico IPC	44,694.0	4.9	2.6
Egypt EGX 30	10,736.9	0.8	-23.1
Israel TA-125	1,547.7	2.7	-4.3
Saudi Arabia Tadawul	8,746.8	0.8	4.3
South Africa JSE AS	59,246.4	1.1	3.8
World, dev'd MSCI	2,682.2	1.5	13.7
Emerging markets MSCI	1,266.8	1.4	13.6

US corporate bonds, spread over Treasuries

Basis points	latest	Dec 31st 2019
Investment grade	138	141
High-yield	434	449

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

Commodities

The Economist commodity-price index

2015=100	Dec 15th	22nd	28th*	% change on month	year
Dollar Index					
All Items	148.1	138.2	154.3	10.6	33.4
Food	112.6	116.6	117.8	5.0	15.0
Industrials					
All	181.2	158.5	188.3	14.0	47.2
Nfa†	123.5	127.0	129.6	11.0	25.3
Metals	198.3	167.8	205.8	14.6	52.2
Sterling Index					
All items	168.7	158.4	175.1	9.9	31.5
Euro Index					
All items	135.2	126.0	140.1	8.9	22.6
Gold					
$ per oz	1,847.5	1,864.2	1,881.9	4.0	23.8
West Texas Intermediate					
$ per barrel	50.8	50.2	51.4	8.1	-22.5

Sources: CME Group; Cotlook; Darmenn & Curl; Refinitiv Datastream; FT; ICCO; ICO; ISO; Live Rice Index; LME; NZ Wool Services; Thompson Lloyd & Ewart; Urner Barry; WSJ. *Provisional †Non-food agriculturals.

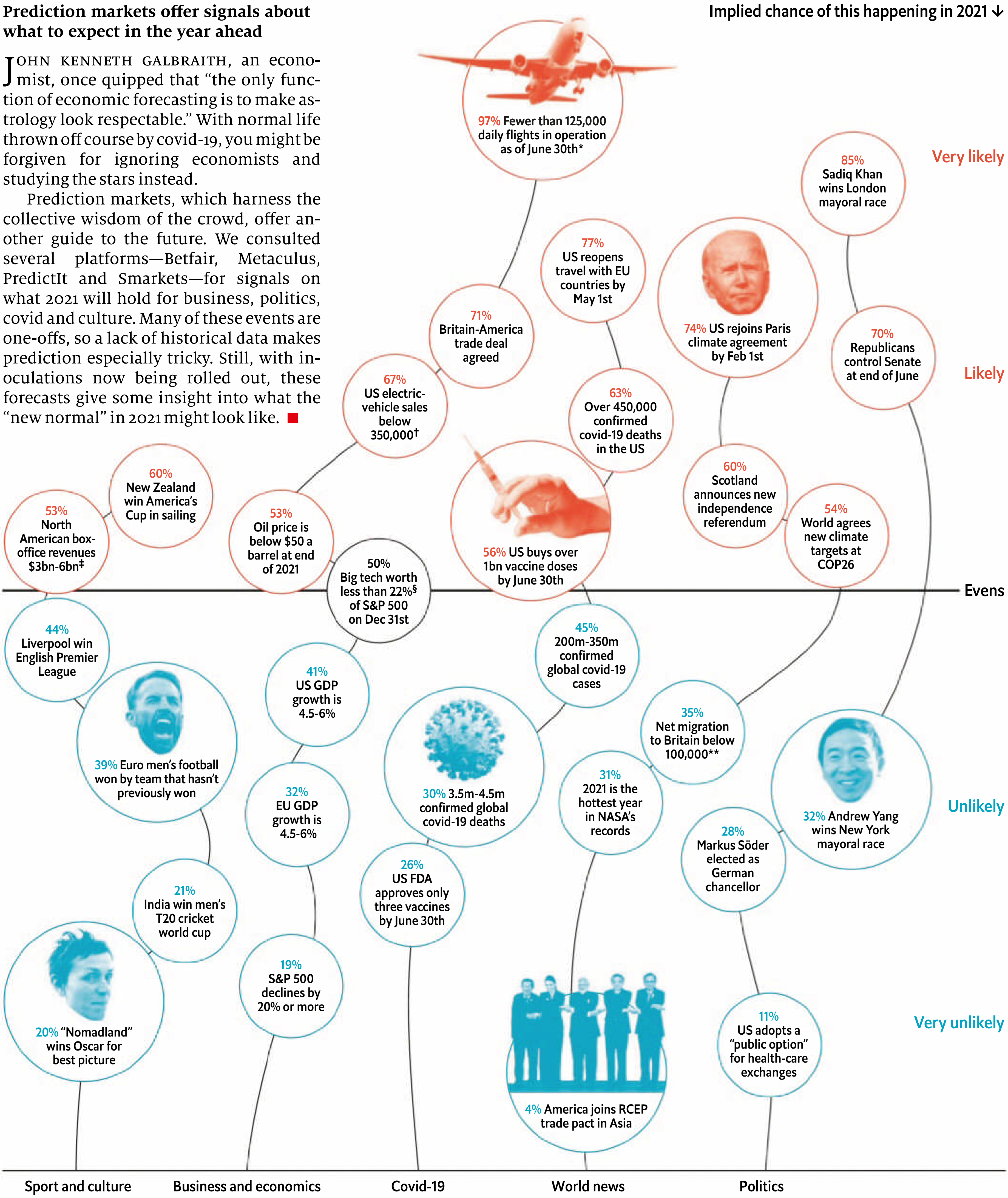
For more countries and additional data, visit **Economist.com/indicators**

Stars in their eyes

Prediction markets offer signals about what to expect in the year ahead

JOHN KENNETH GALBRAITH, an economist, once quipped that "the only function of economic forecasting is to make astrology look respectable." With normal life thrown off course by covid-19, you might be forgiven for ignoring economists and studying the stars instead.

Prediction markets, which harness the collective wisdom of the crowd, offer another guide to the future. We consulted several platforms—Betfair, Metaculus, PredictIt and Smarkets—for signals on what 2021 will hold for business, politics, covid and culture. Many of these events are one-offs, so a lack of historical data makes prediction especially tricky. Still, with inoculations now being rolled out, these forecasts give some insight into what the "new normal" in 2021 might look like. ■



*123,000 in week to Jun 30th 2019 †330,000 in 2019 ‡$11.3bn in 2019 §Combined weight of Alphabet, Amazon, Apple, Facebook and Microsoft at end of 2020 **270,000 in 2019 Sources: Betfair; Metaculus; PredictIt; Smarkets

Man and mystery

Barry Lopez, proselytiser for a different understanding of landscape and Nature, died on December 25th, aged 75

On one of his evening walks across the Arctic tundra, Barry Lopez found himself bowing. Not an extravagant thing, but from the waist, with his hands still in his pockets. He bowed to the horned lark he encountered on her ground nest, who returned his gaze with a stare as resolute as iron. He bowed to the golden plovers he surprised crying from their eggs, and to the eggs themselves, touched with a glow as soft and pure as in the paintings of Vermeer. When he came to a shred of musk-ox wool caught in the lavender flowers of saxifrage, he bowed to that, too.

By doing so, he surprised himself a little. But he kept the habit going. It was a gesture of respect for fecundity and beauty, for the mystery of these lives in a place that seemed barren. It was prompted, too, by the astonishing serenity and clarity of the Arctic light, a breathing light, pure as first-water diamonds. He felt wonder, and not only for small, close things. When he raised his field glasses he could see the true differentiated colours of the tundra, the bloom of glittering spray around caribou as they shook themselves, the several shades of grey in an iceberg, dove-grey and pearl and smoke, and the cobalt gleam of distant melt-ponds that held at their centres a core of aquamarine ice, like the heart of winter.

He went to the Arctic—as to the Antarctic, the Pacific northwest, Australia, the Galapagos, Africa—with the mental preparation of a scientist. Though he had not been trained as one, he had read widely, and could deploy anthropology, geology, biology and physics as they were needed. But he also deployed the eye of the boy who had wandered the creeks and rocks of the San Fernando Valley, and whose greatest joy had been to watch his pigeons flying. The book that resulted from his trip, "Arctic Dreams" (1986), carefully analysed the crystalline structure of rocks and ice, the habits of seals and the thermodynamic function of the hair of polar bears, but delighted equally in the still-mysterious: the life of the narwhal, less known than the rings of Saturn, or the migration of snow geese, which made him feel transcendent when he camped among them. Rationalism, charts and data sets could go only so far. They could not answer his abiding questions: how landscape shaped the people who lived in it, their ethics and imaginations, and how people's aspirations, in turn, affected landscape, until they were as much a part of it as the creatures were, or as the wind was. Science could not explain how some landscapes bestowed grace on the beholder, and called out goodness.

These concerns took him incessantly away, to more than 80 countries. The horizon had always beckoned, urging him to see what the skyline cordoned off, to leave the comfort zone of his white, middle-class upbringing and his conventional ideas. For a while the Catholic priesthood had tempted him, but he found even the life of a Trappist monk too easy. He was drawn instead to places, especially the polar regions, where in white-out blizzards the sense of time and space disappeared, and where sometimes the indifferent, unnamed, unmeasured wilderness seemed, in a strange way, to hold him safe. Gathering meteorites once with a scientific team in the Transantarctic Mountains, he was entranced not only by those stones from beyond the Earth but also by the terrestrial rocks he clambered over, each with distinct colours and angularities and each, to him, subliminally alive.

The mysterious worlds of wild animals drew him, too. For two years in Alaska he lived alongside wolves, observing but also personalising them, in an effort to correct human cruelty and false imaginings. Wolves, too, were part of the landscape they moved in, exactly fitted to it, and considered by the native tribes to be as various as clouds. Invading profiteers upset such subtle balances by drilling for oil, and dumping waste, in regions they assumed were just static dioramas and did not begin to understand.

At least the peoples of the Arctic still lived, to some degree, in harmony with their landscape. There was wisdom to be tapped, if he could get to it. In his writing he excoriated those who dismissed indigenous knowledge and storytelling, reminding them, again, how much they did not know. In a way he was an elder in his own place, the McKenzie river valley on the west slope of the Cascades in Oregon, simply by virtue of living there for 50 years. He knew the spawning places of the Chinook salmon, the haunts of ospreys, the favourite routes of bear and deer. However much he travelled, he kept those ties to his natural home, his native or hunter's eye. If he was blocked in his writing he would walk the banks to pick up a beaver stick, notched by the busy teeth of creatures who had no idea what angst was. If he needed wilderness again, where humans had never set foot, he could find it within a few steep miles.

Whether home or abroad, he saw himself as a man on the edge. The edge of tribal gatherings from which, like an ivory gull, he picked out whatever scraps he could; the edge of the United States; and the edge of the climate-change debate, from which he kept calling, hoping to be heard. The planet was in dire straits. In September the horror came right to his door, when a wildfire caused by years of drought roared along the river bank, destroying the shed that was his archive and, worse for him, 25 acres of mature temperate rainforest. But his message survived, in many forms. It was not angry, desperate though he felt sometimes; he wanted to elevate the conversation, unsettle the selfish, then offer comfort and help. As a writer, teacher and speaker, he saw that as his moral duty.

He fulfilled it by telling audiences what he had discovered on his journeys over the horizon: the proper balance, achieved by indigenous people, between community and autonomy; the wisdom of shamans and elders; the imperative to connect communities to their landscapes, the need to be ever-vigilant. It might be too late to apply this message in many places, but it could prompt, at least, a different perspective, a way to spark solutions that were not imagined yet. Above all he sought to foster a sense of awe before reality, a rekindling of amazement, and recognition of how much was still unknown; to treat its every wonder with respect and humility, as he had bowed to the horned lark. ■