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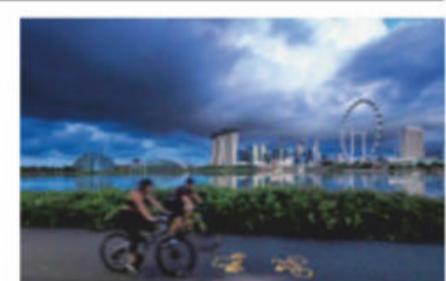
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The
Economist

Volume 435 Number 9200

Published since September 1843
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Some states in the south and west of the **United States** recorded their biggest daily rise in cases of covid-19, bringing America's total to over 2.3m. The governor of **Texas**, Greg Abbott, urged people to stay indoors. He also declared that the state remained "wide open for business". **California** recorded new highs in hospital admissions. Connecticut, New Jersey and New York are to **quarantine** visitors from states that are covid hotspots.

Donald Trump sacked Geoffrey Berman as the **federal prosecutor** for Manhattan. Mr Berman's office had successfully prosecuted Mr Trump's former lawyer (Mr Berman was refused from the case) and is investigating his current one, Rudy Giuliani.

Less than a month after the killing of George Floyd in Minneapolis, an attempt to reform police procedures in **Minnesota** came to naught when Democrats and Republicans failed to reach a compromise in the state legislature.

Suriname's president, Dési Bouterse, who has dominated the country's politics for more than 40 years, conceded defeat in an election held on May 25th. His likely successor is Chan Santokhi, of the mainly Indo-Surinamese Progressive Reform Party. In November a military court found Mr Bouterse guilty of murdering 15 political opponents in 1982.

Brazilian police arrested a former aide to Flávio Bolsonaro, the eldest son of the president, Jair Bolsonaro, in an investigation into corruption. Flávio, a senator, is himself being investigated for possible

involvement in the scheme when he was a state deputy in Rio de Janeiro.

Brazil's education minister, Abraham Weintraub, resigned after the Supreme Court included him in an inquiry of a criminal scheme to spread slurs and threats directed at its judges. Mr Weintraub had described the judges as "bums" who should be jailed. He has flown to America.

Singapore called an early election on July 10th. Lee Hsien Loong, the prime minister, has said he will step down during the next parliamentary term. Negative campaigning is effectively banned, which makes it hard for the opposition.

Almazbek Atambayev, a former president of **Kyrgyzstan**, was sentenced to prison for 11 years for illegally releasing a crime boss, who subsequently fled to Russia. Mr Atambayev was arrested in August after throngs of soldiers and police stormed his compound.

India expelled half the staff at **Pakistan**'s embassy in Delhi, accusing them of spying and working for terrorists. Pakistan's foreign ministry said it had responded in kind, telling half the diplomats at India's embassy in Islamabad to leave.

After blowing up their joint liaison office, **North Korea** tried to de-escalate tensions with South Korea by saying it would not take any further action. The North had threatened to deploy troops in the demilitarised zone between the two countries to punish the South for letting activists send pamphlets critical of Kim Jong Un, the North's despot, over the border by balloon.

America named four more **Chinese media** organisations operating in the United States as government foreign missions. The State Department said the four—cctv, China News Service, the *People's Daily* and *Global Times*—produced propaganda for the Chinese Communist Party.

The installation of China's Beidou **navigation system** was completed with the placing in orbit of its final satellite. Beidou, a rival to America's GPS, has taken two decades to build.

China charged two **Canadians** with spying, more than 18 months after they were arrested. China is widely thought to be keeping the men in custody in response to Canada's detention of a senior executive of Huawei following an extradition request from America.

Police in **Tanzania** arrested Zitto Kabwe, an opposition leader. He was charged with "endangering the peace" after meeting supporters. To prepare for an election in October the government has arrested journalists, closed newspapers and harassed dissidents.

Malawians voted in a re-run of a presidential election after courts overturned the results of a rigged one supposedly won last year by the incumbent, Peter Mutharika. Electoral officials have eight days to release the count.

A suicide-bomber killed two people in an attack on a **Turkish** military base in **Somalia** that was claimed by al-Shabab, a jihadist group. Turkey is helping to train Somali soldiers.

Egypt's president, Abdel-Fattah al-Sisi, threatened to intervene in neighbouring **Libya** if Turkish-backed militias captured Sirte, a strategic port, from Khalifa Haftar, a rebellious general who is also backed by Russia. The militias have been moving towards General Haftar's heartland in the east.

Prosecutors from a court in The Hague said they were charging Hashim Thaci, the president of **Kosovo**, with war crimes, murder and torture relating to the period during and immediately after the war there in 1999. Mr Thaci had been about to attend a summit at the White House, but cancelled his visit.

Coronavirus briefs

To 6am GMT June 25th 2020

Weekly confirmed deaths by area, '000



Confirmed deaths*

	Per 100k	Total	This week
Belgium	84	9,722	47
Britain	63	43,081	928
Spain	61	28,327	1,191
Italy	57	34,644	196
Sweden	52	5,209	168
France	45	29,661	149
United States	37	121,819	4,260
Netherlands	36	6,097	23
Ireland	35	1,726	16
Peru	26	8,586	1,329

Sources: Johns Hopkins University CSSE; UN; *The Economist* *Definitions differ by country

The World Health Organisation reported a record increase in the number of new **infections**, bringing the total to more than 9.1m. It expects the 10m mark to be reached within days.

Brazil recorded another big surge in cases, bringing its accumulated total to 1.1m.

Officials reimposed a lock-down in **Chennai**, the capital of Tamil Nadu in southern **India**, after a surge in deaths. The number of infections in Delhi, meanwhile, overtook that in Mumbai.

Saudi Arabia's state media said strict limits would be placed on the number of pilgrims allowed to make this year's *haj*. Citizens from other countries already in Saudi Arabia may attend, but international visitors are barred.

Novak Djokovic apologised after he and three other tennis players contracted covid-19 at a tournament he was hosting.

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

The IMF drastically reduced its outlook for the **world economy**, projecting that it will contract by 4.9% this year. The downward revision was across the board; all regions will suffer shrinkage. America's GDP is now expected to fall by 8%, Britain's and the euro area's both by 10.2% and Japan's by 5.8%. Most emerging markets will fare little better. China, though, is forecast to grow by 1%.

Andrew Bailey, the governor of the **Bank of England**, said that he doesn't want its bond-buying programme to become a "permanent feature" of the British economy. In a shift of policy from his predecessor, Mark Carney, Mr Bailey indicated that it "would be better to consider adjusting the level of reserves first" before raising interest rates. The central bank recently increased its quantitative-easing programme by £100bn (\$125bn).

We've got a little list

The Pentagon released a list of 20 companies and state-controlled enterprises it believes are owned or supported by the Chinese army. The publication of the list, which includes **Huawei**, is mostly symbolic. Congress required the Pentagon to catalogue entities with ties to China's armed forces in 1999, but no document had ever been made public before.

Wirecard, a German digital-payments company, filed for insolvency after Markus Braun, its chief executive, was arrested to answer allegations of fraud. The company has admitted that €1.9bn (\$2.1bn) held on its balance-sheet probably does not exist. In what is one of Europe's biggest accounting scandals in recent years, Wirecard acknowledged the money was phantom after two banks in the Philippines where it supposedly had been deposited denied having ever received it.

Bayer agreed to pay up to \$10.9bn to settle claims that its Roundup weedkiller causes cancer. The German drugs and

chemicals company inherited the claims when it bought Monsanto, Roundup's maker, in 2018. It might have to make further payouts to those plaintiffs who are refusing to settle.

Apple said it would start offering desktop and laptop computers powered by chips designed in-house, rather than those from Intel, its current supplier. The chips, derived from designs by ARM, which is based in Britain, will be similar to those that already power its smartphones and tablets. Apple hopes that the ability to run software across multiple devices might boost sales of its Mac computers.

Brazil's central bank blocked Facebook's digital-payments service on **WhatsApp** because it had yet to complete its analysis of the implications. WhatsApp Pay was launched in Brazil just a week ago.

Business organisations in America were angered by Donald Trump's decision to expand the scope of restrictions on **immigrant visas** for workers. Mr Trump claims this will protect American jobs. But the head of the US Chamber of Commerce, Thomas Donohue, warned that the measures will reduce job creation.

GVS, an Italian maker of personal equipment to protect against biohazards, went public on the Milan stock exchange, in Europe's second-biggest IPO of the year so far.

SoftBank sold most of its stake in **T-Mobile**. The Japanese conglomerate raised almost \$20bn by selling shares on the stockmarket and in a private tender, a signal to investors that it still has financial clout following some disastrous investments that left it with an \$8.8bn annual loss. Meanwhile, Son Masayoshi, SoftBank's chief executive, stepped down from the board of Alibaba, bringing an end to the firms' close relationship.

Re-opening time

The British government confirmed that **pubs**, restaurants and other services such as hairdressers will be allowed to reopen in England on July 4th. Britain has lagged behind France, Italy and other European countries in easing restrictions. Hotels have seen a surge in bookings for July and beyond, but if infections rise again it will be a short-lived break for holiday-makers.

Perhaps those looking to get away from it all could look to

space. **Virgin Galactic** signed a deal with NASA this week to prepare a plan for taking fee-paying passengers to the International Space Station. That may take some time; the company has yet to take space tourists on its less arduous suborbital flights.



The pandemic has stranded many workers at home, and also sent millions to the unemployment line. But that has meant tech giants have done well as home offices are kitted out with equipment and people communicate remotely. The soaring stock of those companies, and others, has increased the wealth of their bosses and, as a consequence, America has gained nearly 30 new **billionaires** since March, according to the Institute for Policy Studies, a left-leaning think-tank. The top five are thought to be 26% richer collectively than before covid-19.



The next catastrophe

Governments routinely ignore seemingly far-out risks. Rocked by a global pandemic, they need to up their game

IN 1993 THIS newspaper told the world to watch the skies. At the time, humanity's knowledge of asteroids that might hit the Earth was woefully inadequate. Like nuclear wars and large volcanic eruptions, the impacts of large asteroids can knock seven bells out of the climate; if one thereby devastated a few years' worth of harvests around the globe it would kill an appreciable fraction of the population. Such an eventuality was admittedly highly unlikely. But given the consequences, it made actuarial sense to see if any impact was on the cards, and at the time no one was troubling themselves to look.

Asteroid strikes were an extreme example of the world's willful ignorance, perhaps—but not an atypical one. Low-probability, high-impact events are a fact of life. Individual humans look for protection from them to governments and, if they can afford it, insurers. Humanity, at least as represented by the world's governments, reveals instead a preference to ignore them until forced to react—even when foresight's price-tag is small. It is an abdication of responsibility and a betrayal of the future.

Covid-19 offers a tragic example. Virologists, epidemiologists and ecologists have warned for decades of the dangers of a flu-like disease spilling over from wild animals. But when SARS-cov-2 began to spread very few countries had the winning combination of practical plans, the kit those plans required in place and the bureaucratic capacity to enact them. Those that did benefited greatly. Taiwan has, to date, seen just seven covid-19 deaths; its economy has suffered correspondingly less.

Pandemics are disasters that governments have experience of. What therefore of truly novel threats? The blazing hot corona which envelops the Sun—seen to spectacular effect during solar eclipses—intermittently throws vast sheets of charged particles out into space. These cause the Northern and Southern Lights and can mess up electric grids and communications. But over the century or so in which electricity has become crucial to much of human life, the Earth has never been hit by the largest of these solar eruptions. If a coronal mass ejection (CME) were to hit, all sorts of satellite systems needed for navigation, communications and warnings of missile attacks would be at risk. Large parts of the planet could face months or even years without reliable grid electricity (see Briefing). The chances of such a disaster this century are put by some at better than 50:50. Even if they are not that high, they are still higher than the chances of a national leader knowing who in their government is charged with thinking about such things.

The fact that no governments have ever seen a really big CME, or a volcanic eruption large enough to affect harvests around the world—the most recent was Tambora, in 1815—may explain their lack of forethought. It does not excuse it. Keeping an eye on the future is part of what governments are for. Scientists have provided them with the tools for such efforts, but few academics will undertake the work unbidden, unfunded and unsung. Private business may take some steps when it perceives specific risks, but it will not put together plans for society at large.

Admittedly, neither the Earth's volcanoes nor the Sun's co-

rona can be controlled. But early-warning systems are possible, and so is thought-through preparedness. Historically active volcanoes near large cities, such as Fuji, Popocatépetl and Vesuvius, are well monitored, and there are at least plans for evacuation should it seem necessary. It would not be that hard to extend this sort of care to all potentially climate-altering volcanoes.

Governments could also ensure that grid operators have plausible plans for what to do if DSCOVR, a satellite that hangs between the Earth and the Sun, provides a half-hour warning that a CME is on its way, as it is designed to do. Ensuring that there are offline backups for some vital bits of grid equipment would be more expensive than a volcano-alarm, and would reduce, not eliminate, risk. But it would be worth the effort.

Nor would it be that hard to provide better early warning of possible pandemics. Stopping all transmission of new pathogens from wild animals is a fool's errand—though putting a limit on the most intensive farming and egregious exploitation of wild ecosystems would help. But, again, risk can be reduced. Monitoring the viruses found in animals and people where such transfers seem most likely is eminently feasible (see Science section). For countries to trust each other to do so might be a challenge; so would achieving the sort of transparency which would make such trust unnecessary. But if there were ever to be a mo-

ment to try, it is surely today. Before the Indian Ocean tsunami of 2004 there were few early-warning systems for tsunamis. Now, thankfully, there are many.

It might seem quixotic to insist on esoteric preparedness when there are greater threats staring the world in the face, including catastrophic climate change and nuclear war. But this is not an either/or. The structural changes needed to reduce climate risks—changes many countries are now pursuing, if with insufficient urgency—are of a different order from those needed under other headings. What is more, the approaches which make sense for arcane threats have implications for more familiar ones, too. Thinking about risk reduction, rather than elimination, should encourage steps such as taking nuclear weapons off continuous alert and new approaches to arms control. Taking environmental monitoring more seriously could help provide an early warning for sudden shifts in the patterns of climate disruption, just as it could detect rising magma under faraway mountains of which the world knows little.

Scanning the future for risks and taking proper note of what you see is a mark of prudent maturity. It is also a salutary expansion of the imagination. Governments which take seriously ways the near future could be quite unlike the recent past might find new avenues to explore and a new interest in sustaining their achievements well beyond a few turns of the electoral cycle. That is exactly the sort of attitude that stewardship of the environment and the containment of armed conflict require. It can also be a relief. Almost all the large asteroids which can come close to the Earth have now been found. None is a near-term threat. The world is not just a demonstrably safer place than it seemed. It is also a better place for having found it out. ■



Israel and the Palestinians

Consider the cost

Binyamin Netanyahu is underestimating the risks of annexation

NINE MEN and one woman have led Israel since the six-day war of 1967 brought the West Bank under its control. Nearly all thought it too risky to annex any of the territory beyond East Jerusalem. True, Israel has built scores of settlements since the war, so that more than 400,000 Israelis now live in the West Bank, alongside 3m Palestinians. But its leaders calculated that annexation would bring global opprobrium, destabilise the region and doom the two-state solution—the idea that a Palestinian state and a Jewish one might one day peacefully co-exist.

Binyamin Netanyahu, Israel's prime minister today, thinks he knows better. Last year he wooed hawkish voters by vowing to absorb a handful of settlements and the entire Jordan Valley. Then, in January, President Donald Trump released a peace plan that would give Israel 30% of the West Bank. The Palestinians, unsurprisingly, rejected it. But Mr Netanyahu wants to proceed with annexation (see Middle East & Africa section). He is underestimating the costs and moving Israel closer to a fateful choice about its future.

Mr Netanyahu, of course, doesn't see it that way. He spies a window of opportunity, stemming not only from his friendship with Mr Trump—which may be less useful come November—but also from Israel's ties with Arab states. A common enemy, Iran, has brought them together, while the question of what to do about the Palestinians has been put on the back-burner. Mr Netanyahu seems to believe he can keep it there. Arab countries, after all, did little more than shout when America recognised the disputed holy city of Jerusalem as Israel's capital in 2017. Envoys from the Gulf even attended the unveiling of Mr Trump's peace plan.

The peace process is moribund anyway, say Mr Netanyahu's men. They blame the Palestinians for spurning past offers and refusing to discuss Mr Trump's plan, which would establish a Palestinian state (albeit under rather onerous conditions). "The Palestinians continue to reject dialogue and to remain in their

deep shit," says Benny Gantz, the deputy prime minister, who opposed unilateral annexation (and Mr Netanyahu) until recently. Israel, therefore, must act alone, says Ron Dermer, its ambassador to America. Annexation, he claims, will "get the peace process out of the cul-de-sac it has been stuck in for two decades."

The Israelis' frustration with the Palestinians is understandable. But Mr Netanyahu shares blame for the failure of the peace process—and annexation seems an odd way to revive it. The risks for Israel are manifold. Start in America, where Mr Trump is lagging behind Joe Biden in the polls. Mr Netanyahu all but ignores the Democratic nominee, who opposes unilateral annexation, and his colleagues, who may not support Israel's government come what may. Their doubts are shared by European

leaders. The EU's foreign-policy chief, Josep Borrell, says annexation would have "significant consequences" for relations with Israel.

Arab states have also spoken up. Annexation "will certainly and immediately up-end Israeli aspirations for improved security, economic and cultural ties with the Arab world," wrote Yousef al-Otaiba, an Emirati diplomat, in what is thought to be the first opinion piece by a Gulf

official in an Israeli newspaper. King Abdullah of Jordan, who has millions of Palestinians in his country, warns of a "massive conflict". Some of this is probably bluster. But even Israeli officials worry that annexation could lead to protests or violence.

Even if annexation were to go ahead smoothly, there is another cost to consider. If Mr Netanyahu starts taking bits of the West Bank, Israel could end up facing a profoundly uncomfortable choice. It could decide to grant the Palestinians full Israeli citizenship, and thus risk seeing them one day outnumber and outvote Jews. Or it could choose to leave them shut away in reservations with minimal rights, like an apartheid state. To remain both Jewish and democratic, Israel must find a way to avoid those two outcomes. ■



Property troubles

Watch this space

Investors have loaded up on commercial property. Now they face a reckoning

YOU MAY not realise it, but a growing share of your savings and pensions pot has been wagered on the commercial buildings in which you work, shop and sleep. The original idea was that these investments would provide a steady stream of earnings for decades into the future, rather as government bonds did before interest rates fell so low. But now the virus has thrown that assumption into a cement mixer.

Across the world millions of tenants have stopped paying rent, leading to chaos among shopping-mall and office landlords (see Finance section). In the longer term, a renewed appreciation of the threat from pandemics, and of the potential of new tech-

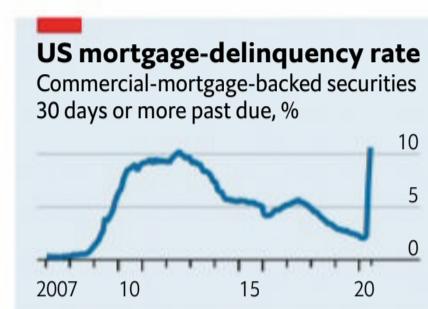
nologies, could lead to a sharp shift in how commercial buildings are used. Savers and fund managers need to be alert. A safe, slow-moving asset class has become an unpredictable one that demands scrutiny and active management.

Commercial property has become an investment craze over the past two decades. In that period the nominal yield on a long-term American government bond has dropped from over 6% to less than 1%. Desperate to find other steady higher-yielding sources of earnings, pension trustees and fund managers have piled into malls, offices, hotels and warehouses. A corner of the economy that had been the preserve of moguls, amateurs and ►

► aristocrats has become increasingly infiltrated by strait-laced institutions and algorithm-crunching fund managers. The typical pension fund's allocation to commercial property has risen from 5% in 2000 to over 10% now; institutional investors have about \$1trn sunk into the asset class. Leases routinely stretch a decade or more into the future. The combination of reliable rental income and capital appreciation has meant that commercial property has successfully given investors annual returns of over 7%. All they needed was patience. That will no longer be enough.

The immediate problem is that tenants are behind on the rent. Every recession involves sporadic delinquencies, but the lockdowns have led to anarchy in some bits of the property business. Perhaps a quarter of free-standing shops, half of mall tenants and 60% of restaurants in America and other Western markets are not paying their dues. This can be a spontaneous rebellion or landlords may have offered holidays. Some cities and governments have introduced moratoriums. Landlords have taken a hit to their income. So far they have been unwilling or unable to repossess buildings that may have no other prospective tenant. A growing number have defaulted on their debts. Commercial-mortgage-backed securities, which bundle up property loans, have seen delinquency rates exceed the levels in the financial crisis of 2007-09.

Temporary delinquencies are only part of the problem. In the longer run the uses of property may change. E-commerce activity has risen to the level pundits had thought it would reach three to five years from now, speeding up the decline of bricks-and-mortar shops and boosting demand for warehouses. Firms that have found remote-working tolerable may shrink the office space they hire. Video calls in lieu of business trips could reduce the number of hotel nights billed. Even as economies open up



again, there are signs that behaviour may have changed permanently. The latest mobility-tracking data suggest that activity in offices in America is 36% below normal levels. It is 15% below the usual level for retail and recreation spaces such as restaurants, shops and cinemas.

Savers and the fund trustees who represent them should follow two tracks. The first is to get a realistic picture of the losses they face. If the property industry used to be amateurish, it is now all too often professionally opaque, with layers of holding companies and debt standing between the bricks and girders and their ultimate beneficiaries. The managers of buildings and investment vehicles may have an incentive to mask difficulties.

Some, for example, are bailing out struggling retail tenants, perhaps in order to avoid admitting to rent defaults. Others are sticking to unrealistic valuations, which the industry's arcane accounting practices make easier to sustain.

The bigger task is for investors to embrace the restructuring that must take place. Hotels may need to become apartment blocks; malls may need to be reincarnated as e-commerce fulfilment centres; and office blocks may need to be refurbished so that desks are farther apart. All of this involves not sitting on properties and milking them for rent, but reinvesting in them and, often, selling them to different owners. That holds open the potential for greater efficiency, but also for fee-skimming and unnecessary losses if unaltered buildings are sold off cheaply.

Property has long been a slow-moving asset class because leases last for years and tenants normally change their behaviour only gradually. Landlords and their financial backers have thus got used to a business that moves at a glacial pace. For two decades a reliably easy way to make money has been to buy a commercial building and go to sleep. Time to wake up. ■

The Wirecard scandal

In praise of short-sellers

The market needs more sceptics

GERMANS CONSUMED by tech envy of America allowed themselves a flush of pride when Wirecard won a place in the DAX index in 2018, and its stockmarket value surged above €24bn (\$28bn). Here, it seemed, was a European fintech champion: a digital-payments firm headed for global glory. Today, faces are red again—with embarrassment. Wirecard has admitted it has a €1.9bn hole in its accounts. Its founder and boss, Markus Braun, once lauded as a visionary, quit on June 19th and was arrested and bailed this week on suspicion of false accounting and market manipulation. The firm has begun insolvency proceedings.

Wirecard's rise and fall is a case study in the carnage possible when a firm's accounting goes awry but national regulators and big investors are so seduced by the company's narrative that they cannot, or will not, see it. It is also a reminder of how markets stand to benefit from short-sellers—who try to make money betting against listed firms, by selling borrowed shares and buying them back later at a lower price. Had the warnings from Cassandras who detected a bad smell around Wirecard years ago been heeded, billions of dollars of losses, many of them borne by pension-fund investors, could have been avoided.

Questions about the firm's accounting began to swirl in 2015 (see Finance section). They have intensified in the past 18 months with a series of articles in the *Financial Times*, informed by short-sellers and whistle-blowers. Instead of taking these seriously, Germany's markets regulator, BaFin, seemed keener to shore up confidence in Wirecard and attack the attackers. It temporarily banned shorting of the firm's stock, a first, and opened a criminal case against journalists for suspected manipulation.

Big banks and investors, including Deutsche Bank and its DWS fund-management arm, backed Wirecard and kept the faith, in some cases doubling down, even as more and more red flags popped up. Many did scant due diligence, instead relying on puff pieces churned out by sell-side analysts right to the end: half a dozen still had buy recommendations on the stock when Mr Braun resigned. Wirecard's auditor, EY, faces scrutiny, too. Germany's media, for the most part, swallowed Wirecard's line that it was the victim of a nefarious plot by Anglo-Saxon marauders.

When so many clever people can get it wrong, anything that injects scepticism is welcome. Such counterweights to market consensus are especially helpful when politicians and central ►

► banks are boosterish on asset prices, as they are now, and in countries with a corporatist mindset. Even as Germany has embraced shareholder capitalism, the view that company managers are more trustworthy than their shareholders, especially less patient ones, has proved stubbornly persistent.

Those who bet against companies have long been eyed with suspicion; short-selling bans date back to 17th-century Amsterdam. But claims that shorting causes instability do not hold water: financial crises are more often caused by investors borrowing to go long, not short. Sometimes short-sellers are up to no good, as when they engage in speculative “naked” shorting (placing bets without first borrowing stock). More often than not, though, they are on to something. Over the past year they have uncovered several big frauds, from the fabricated sales at Luckin Coffee, a Starbucks wannabe—the latest in a line of fantastically fraudulent Chinese firms laid low by contrarians—to the debt-disguising shenanigans at NMC Health, a FTSE 100 company.

Shorting does more than just root out funny business. It also

helps sharpen price discovery when legitimate firms are overvalued. Short-sellers tend to do their homework because they have a lot at stake. Stocks can rise by more than they can fall and shorts can bleed money if a target’s shares remain buoyant for years. They have to face writs and illegal tactics, too—Wirecard is suspected of ordering cyber-attacks on its critics.

More’s the pity, then, that as protectionism mounts, governments are becoming more tempted to cuddle up to home-grown corporate stars. Typically, frauds have a global element—Wirecard falsely claimed that the missing cash was in the Philippines; NMC has creditors in Taiwan and Oman, among other places; and Luckin was incorporated in the Cayman Islands. But the trade war and fracturing of global regulation make it harder for sceptics to work their magic. More Chinese firms may eventually shift their main listing from New York to China, where short-selling is less tolerated. Professional naysayers will never be popular, profiting as they do from the misery of others. But if they cannot keep markets honest, nobody wins. ■

E-sports

Citius, Altius, Fortnite

Why the next Olympic games should feature Fortnite

CHAMPIONS FROM many countries are dropped on an island, wearing tight, garish outfits that show off their muscles. They search for weapons, such as guns and rocket-launchers. In teams of two, they try to kill everyone else on the island. The last pair standing wins gold medals and global adulation.

The Tokyo Olympics, which were supposed to start next month, have been postponed until 2021, thanks to covid-19. That delay offers a chance for reflection. The International Olympic Committee wants to make the games more popular with young people. To that end, it is introducing new events, such as skateboarding, surfing and climbing. Why not go further and let national teams compete at video games? Electronic sports such as “Fortnite”, described above, are vastly more popular than Olympic oddities such as dressage or curling. In fact, they are more popular than most mainstream sports (see International section). Only 28% of British boys aged 16-19 watch any traditional live sports; 57% play video games.

Stick-in-the-muds may grumble that e-sports are not proper sports. Many parents, observing their surly teenagers sitting on the sofa all day twiddling their thumbs and shouting “Quick, pass me the shotgun!” at a screen, would agree. Yet video games are highly competitive, with professional leagues that play to packed stadiums. There are perhaps only 200 tennis stars in the world who can make a living from playing in tournaments. By contrast “League of Legends”, a fantasy game played by teams of five, supports over 1,000 on good wages. Its World Championship final last year was watched by 44m people.

New sports have always been unpopular at first. King Edward II of England tried to ban football in 1314, because he thought boys should be learning archery instead. In 19th-century America churchy types objected to baseball, which they worried was too much fun. The best e-sports require as much skill and dexterity as many conventional sports—professional gamers typically

carry out five distinct actions every second. Video games are also cheaper and more accessible than, say, sailing or horse-riding.

Critics of e-sports offer moral objections, too. They are addictive. Prince Harry has called for “Fortnite” to be banned for this reason. They are violent. Surely, at a time of global disharmony, it is a bad idea to make simulated killing an Olympic sport? The Olympics aim to promote peace. Finally, video games are crassly commercial. Nobody owns basketball; “League of Legends” is owned by Tencent, a Chinese megacorporation.

None of these arguments is very convincing. The idea that an activity, rather than a substance, can be addictive is contentious among doctors, as is the existence of a causal link between gaming and violence. And the notion that warlike sports have no

place in the Olympics is hard to square with history. Javelin-throwing and wrestling were introduced in 708BC. They are still there. Modern pentathlon, which includes shooting and fencing, was designed to train soldiers. The imaginary mayhem in “Fortnite” cannot be compared to the real harm caused by boxing. Packs of e-sports fans do not rampage through town centres as soccer or ice-hockey fans sometimes do.

As for the fact that e-sports belong to companies, so what? The Olympics already generates billions from broadcasting and sponsorship. Commercial pressure can make for livelier entertainment. Having a video game named as an Olympic sport would be a huge prize. Companies would vie to create games as exciting to watch as they are to play. This sounds like a recipe for fun. Those who disagree can always watch the 20,000-metre speed-walk. Put “Fortnite” in the Olympics, and millions will tune in who might otherwise not have bothered. They might even stumble across a traditional sport and decide to try it, too. And if the experiment fails, no matter. The International Olympic Committee could drop it in 2024, as it has previously dropped croquet, tug-of-war and solo synchronised swimming. ■





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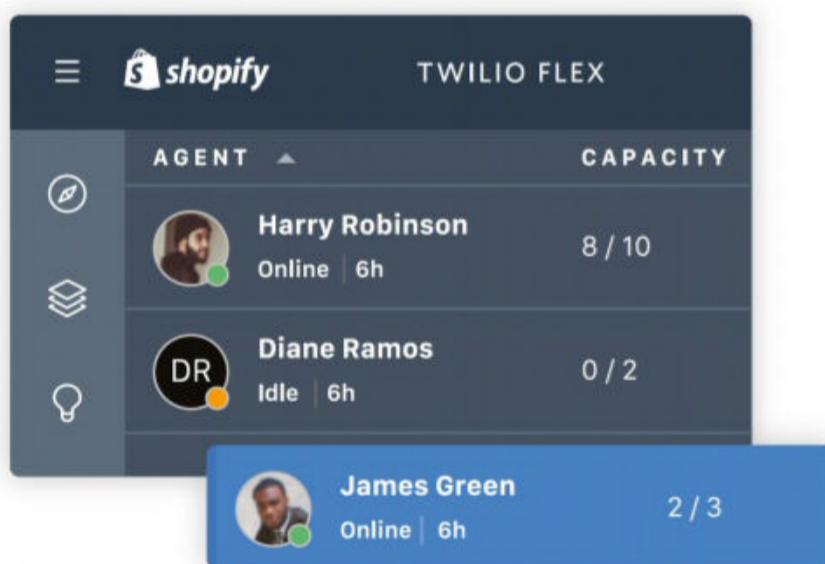
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AGENT	CAPACITY
 Harry Robinson Online 6h	8 / 10
 Diane Ramos Idle 6h	0 / 2
 James Green Online 6h	2 / 3



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The statues of limitations

You described the fortune of Cecil Rhodes as "grubby", which is far from true ("Marble monsters", June 13th). In fact, his fortune was rather clean, even if his colonial ambitions were not. His riches started with claims in the De Beers mine, land which had been bought from the eponymous, and white, brothers. It was secured with the formation of De Beers Consolidated, essentially by purchasing Kimberley Central from Barney Barnato for £5,338,650, a huge sum at the time. It was expanded through Gold Fields, which purchased properties on the Rand from their Boer farmers.

What was "grubby" was making black workers live in a compound for the duration of their work and subjecting them to strip searches for stolen diamonds and still more degrading acts. Rhodes's British South Africa Company drove black people off their land north of the Cape (and worse). And he backed the Jameson Raid, the slapdash failed coup attempt in the Transvaal, albeit with the tacit backing of the Colonial Office. However, these activities were subsidised by his fortune, not a cause of it, which would have been far greater without them.

TREVOR BRADLEY
London

The difficulty with your pragmatic proposal on which statues should stay and which should go is illustrated by your argument that Oliver Cromwell's positive contribution to democracy in Britain outweighs his responsibility for mass murder in Ireland. Whatever the merit of Cromwell's contribution to democracy (which include executing his predecessor, having himself appointed head of state for life, and appointing his son to succeed him), the "terrible suffering" he caused in Ireland (in fact, killing at least 10% of the population), surely makes his main contribution to history "baleful", in your terms.

Public statues are too often an effort to overturn Shake-

speare's observation that "the evil that men do lives after them; the good is oft interred with their bones". Rather than liberals and conservatives talking past each other on the merits or otherwise of each statue, perhaps they could agree to remove them all.

MARK HAYDEN
Sauvian, France

It is not enough to take down statues of Jefferson Davis. Some southern states celebrate his birthday as a legal holiday and some designate it Confederate Heroes Day, but the purpose is the same, to remind black people of their place. The practice should end.

GEORGE RICHMOND
Albuquerque, New Mexico

A watery grave was an entirely fitting place for Edward Colston's statue, until it was retrieved by Bristol council. In all likelihood the seabed was the final resting place for some of those slaves who formed his miserable cargo. It would have been better if had been left to the fish, whose forebears fed on his helpless victims.

STEPHEN POWERS
London

On the philanthropy that Colston provided, Theodore Roosevelt once said that "No amount of charities in spending such fortunes can compensate in any way for the misconduct in acquiring them."

JOCK CHANDLER
Charlotte, North Carolina

Your leader on the removal of historical statues reminded me of a small area outside the back of the national museum in Tirana, Albania's capital. Enver Hoxha, Joseph Stalin and their ilk brought down to earth and standing around not sure exactly what went wrong.

BOB RUTHERFORD
Victoria, Canada

Make mine a triple

Schumpeter (May 23rd) missed one key opportunity for small booze brands during the lockdown, which is online sales direct to the consumer. Sales

through our own website and to other online shops (such as Master of Malt) grew by 300% from March to May. If anything, being able to bypass supermarkets' buying departments and go straight to the consumer is a big opportunity for small companies.

PADDY FLETCHER
Port of Leith Distillery
Edinburgh

Hot metal

In regard to Buttonwood's article on rising metal prices (June 13th), it is important to distinguish raw material from finished steel prices. It is true that the price of iron ore has been surprisingly strong this year. Some of this is driven by supply issues related to covid-19 affecting Brazil and other countries, but another factor is the historically high raw-steel production in China. Even while plagued by the complexities of battling the coronavirus, China has still produced a record 415m tonnes of steel in the year to date. As domestic consumption slows, it becomes harder for China to absorb this steel, hence more of it is exported, depressing international steel prices.

The lingering effects from the pandemic will slow down consumption even further this year and steel production is set to reach new heights: China is on pace to produce 1bn tonnes of steel this year. This does not bode well for finished steel prices globally.

GINTAS KRYZIUS
London

Be open about PPE

Another vital part of Medellín's data-driven response to the pandemic has been to publish all of its emergency procurements openly ("Medellín's medical marvel", June 4th). Colombia has made all its procurement spending accessible online in a user-friendly way, regardless of the amount or procurement method, a contrast to most other countries, which try to hide the figures. It is free for anyone to analyse, which has helped

uncover a number of cases where politicians abused emergency contracts.

So you can buy equipment fast and still buy openly. If Colombia can do it, we think there are no excuses for other countries not to come clean on their covid-19 contracts too.

NICOLAS PENAGOS
Head of Latin America
Open Contracting Partnership
Bogotá

Build your own country

Your appreciation of "Civilization VI", the latest in a long-running series of video games, has inspired me to admit to a guilty pleasure ("Will to power", May 30th). I have been working harder during this pandemic than I ever have. One of the things that has kept me sane is playing little snippets of Civ6 between Zoom calls or doing chores. Playing the game, in which you have to co-ordinate diplomacy, religion, the armed forces, industry and the economy, has been comforting and useful, as I work with a team building an integrated response strategy to covid-19.

E. GLEN WEYL
Co-chair
Harvard Edmund J. Safra Centre for Ethics Rapid Response Taskforce on Covid-19
Cambridge, Massachusetts

Starman

I was perplexed by your statement that "no other business figure holds a candle to Sir Richard Branson when it comes to public-relations stunts" ("Still smiling, captain?", June 13th). Where were you in February 2018, when Elon Musk launched his own sports car into space as part of the inaugural test of SpaceX's heavy-lift rocket?

JUSTIN HOTTER
Eugene, Oregon



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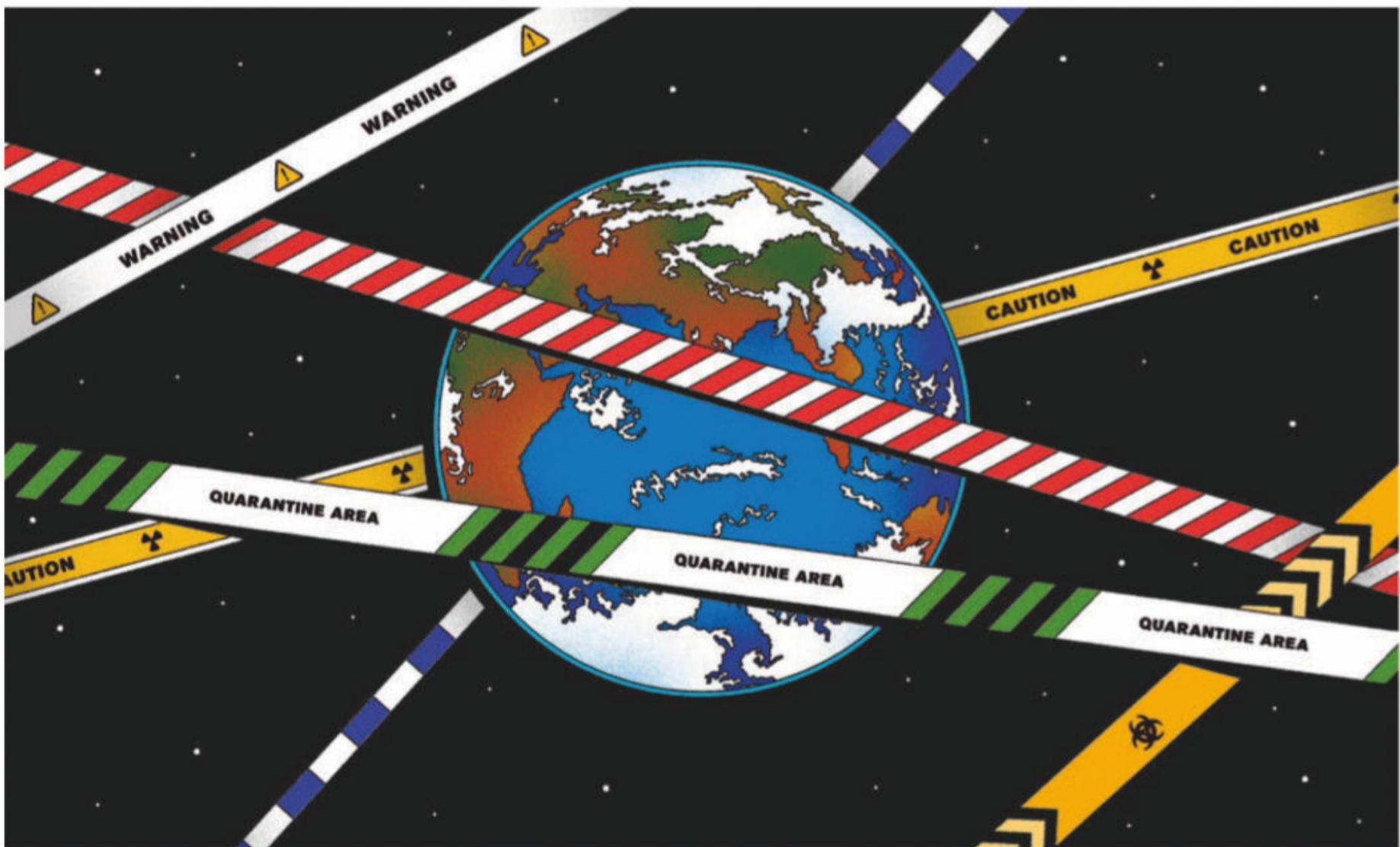
The Statistics and Data Directorate (SDD) is the focal point for the OECD's leading edge work on statistics and data, providing evidence on a comparable basis and from a variety of sources to analysts, policy makers, and members of civil society. SDD develops new metrics and innovative digital tools to address emerging policy issues, leads the development of international statistical standards, advances statistical methodology, and co-ordinates statistical and data-related activities within the Organisation and with other international organisations.

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What's the worst that could happen?

The covid-19 pandemic has found the world unprepared for unlikely-but-dangerous events. This need not be the case

ON SEPTEMBER 2ND 1859 C.F. Herbert, prospecting for gold in south-eastern Australia, saw something sublime in the evening sky. “A scene of almost unspeakable beauty presented itself, lights of every imaginable colour were issuing from the southern heavens,” he would later recall. “The rationalist and pantheist saw nature in her most exquisite robes. The superstitious and the fanatical had dire forebodings, and thought it a foreshadowing of Armageddon and final dissolution.”

Those who saw cataclysm in the auroral display were not exactly wrong: just ahead of their time. The Carrington event, as the geomagnetic storm Herbert observed came to be known, was the result of 100m tonnes of charged particles thrown off by the Sun a few hours earlier slamming into Earth’s magnetosphere, a protective magnetic sheath generated by currents in the planet’s liquid core. The electromagnetic effects of the onslaught did not just produce a truly spectacular display of the Southern Lights (and the Northern ones, too, visible

as far south as Colombia). They induced powerful currents in any electrical conductors to hand. Some telegraph networks took on a life of their own, no longer needing batteries to generate signals.

Such effects mattered little 20 years before the advent of the light bulb. In today’s ubiquitously, fundamentally and increasingly electrified world a “coronal mass ejection” (CME) as large as that of the Carrington event could cause all kinds of chaos. Induced currents would topple electrical grids. Satellites would have their circuitry fried or be dragged from the sky as the outer atmosphere, bloated by the storm’s energy, rose up towards them.

How bad the effects of an off-the-charts CME might prove is up for debate. Some say a really big storm would knock the power out in various places for a few hours, as a moderate one did in Quebec in 1989. Others predict something little short of the end of days. That the world will some day find out who is right, though, is beyond debate. Solar physicists put the odds of a Carrington-

level geomagnetic storm some time in the next ten years at around one in ten. Eventually one will come.

Geomagnetic storms are one of a small set of events found in the historical and geological record that present plausible threats of catastrophe. Pandemics are another, giant volcanic eruptions a third. Seeing how well—or how poorly—countries are currently coping with the only one of these catastrophes of which they have prior experience raises the question of how they might cope with the others.

Technology plays a crucial role in the hazards such events generate. It can bring surcease, as a vaccine might for a pandemic. It can bring vulnerability, as electric grids have when it comes to geomagnetic storms. And it can also bring forth new risks of its own. The most obvious are the technologies of internal combustion and nuclear weaponry, which made possible catastrophic global warming and war on an unprecedented, environment-shattering scale. It is possible that further techno-disasters may lie ahead—and that they may be the most serious of all, putting the whole human future in jeopardy.

In a recent book, “The Precipice”, Toby Ord of the Future of Humanity Institute at Oxford University defines an existential risk as one that “threatens the destruction of humanity’s long-term potential”. Some natural disasters could qualify. An impact like that of the 10km asteroid which ush-

▶ered out the dinosaurs 66m years ago is one example. A burst of planet-scouring gamma rays from a nearby “hypernova” might be another. A volcanic “super-eruption” like the one at Yellowstone which covered half the continental United States with ash 630,000 years ago would probably not extinguish the human race; but it could easily bring civilisation to an end. Happily, though, such events are very rare. The very fact that humans have made it through hundreds of thousands of years of history and prehistory with their long-term potential intact argues that natural events which would end it all are not common.

Do you feel lucky, punk?

For already existing technologically mediated risks, such as those of nuclear war and climate collapse, there is no such reassuring record to point to, and Mr Ord duly rates them as having a higher chance of rising to the existential threat level. Higher still, he thinks, is the risk from technologies yet to come: advanced bioweapons which, unlike the opportunistic products of natural selection, are designed to be as devastating as possible; or artificial intelligences which, intentionally or incidentally, change the world in ways fundamentally inimical to their creators’ interests.

No one can calculate such risks, but it would be foolish to set them at exactly zero. Mr Ord reckons almost anyone looking at the century to come would have to concede “at least a one in 1,000 risk” of something like a runaway AI either completely eradicating humanity or permanently crippling its potential. His carefully reasoned, if clearly contestable, best guesses lead him to conclude that, taking all the risks he cites into account, the chances of humankind losing its future through such misadventure in the next 100 years stands at one in six. The roll of a single die; one spin of the revolver chamber.

Mr Ord is part of a movement which takes such gambles seriously in part because it sees the stakes as phenomenally high. Academics who worry about existential risk—the trend began, in its modern form, when Nick Bostrom, a Swedish philosopher, founded the Future of Humanity Institute in 2005—frequently apply a time-agnostic version of utilitarianism which sees “humanity’s long-term potential” as something far grander than the lives of the billions on Earth today: trillions and trillions of happy lives of equal worth lived over countless millennia to come. By this logic actions which go even a minuscule way towards safeguarding that potential are precious beyond price. Mr Ord, one of the founders of the “effective altruism” movement, which advocates behaviour rooted in strongly evidence-based utilitarianism, sees a concern with existential risk as part of the same project.

Risks that are merely catastrophic, not existential, do not tend to be the subject of such philosophical rumination. They are more amenable to the sort of calculations found in the practice of politics and power. Take the risk of a nuclear attack. According to Ron Suskind, a reporter, in November 2001 Dick Cheney noted that America needed new ways to confront “low-probability, high-impact” events. “If there’s a 1% chance that Pakistani scientists are helping al-Qaeda build or develop a nuclear weapon,” the vice-president said, “we have to treat it as a certainty in terms of our response”. Such responses included new wars, new government agencies (the Department of Homeland Security) and new executive powers, including warrantless surveillance.

If every perceived 1% risk were met with such vigour the world would be a very different place—and not necessarily a safer one. But it is striking that some risks of similar magnitude are barely thought about at all. Imagine Mr Cheney was considering the possibility of losing a city over a 20-year period. What else puts a city’s worth of people and capital at a 1% risk every few decades? The sort of catastrophic risks that crop up every millennium or so, threatening millions of lives and cost trillions. Perhaps they should be treated equally seriously. As Rumtin Sepasspour of the Centre for the Study of Existential Risk at Cambridge University puts it: “Governments need to think about security as just one category of risk.”

Carrington events are a good example. The most devastating effect of a really large CME would probably be on the transformers in electrical grids: gigantic, purpose-built machines that step voltage down between the long-range transmission grid and the distribution grid which runs lower-voltage power into homes, businesses and hospitals.

Strong enough induced currents could damage some of these transformers beyond repair. Because it typically takes between six and 12 months to get a replace-

ment transformer made—and only a few countries have the industrial capacity to make them—that could leave grids crippled for some time. “If you simultaneously lose the ability to pump water, to pump fuel, to communicate, lose eyes in the sky, you pretty quickly get into territory that’s never really been explored before,” says Dan Baker, the director of the Laboratory for Atmospheric and Space Physics at the University of Colorado, Boulder.

Stockpiling backup transformers could help mitigate some of those problems. But large transformers are not commodity items. “They don’t have a big warehouse holding these things ready to roll out,” says Mr Baker. Redundant local supplies, such as backup generators, would also help. Mr Baker is not sure, though, that enough is being invested in them.

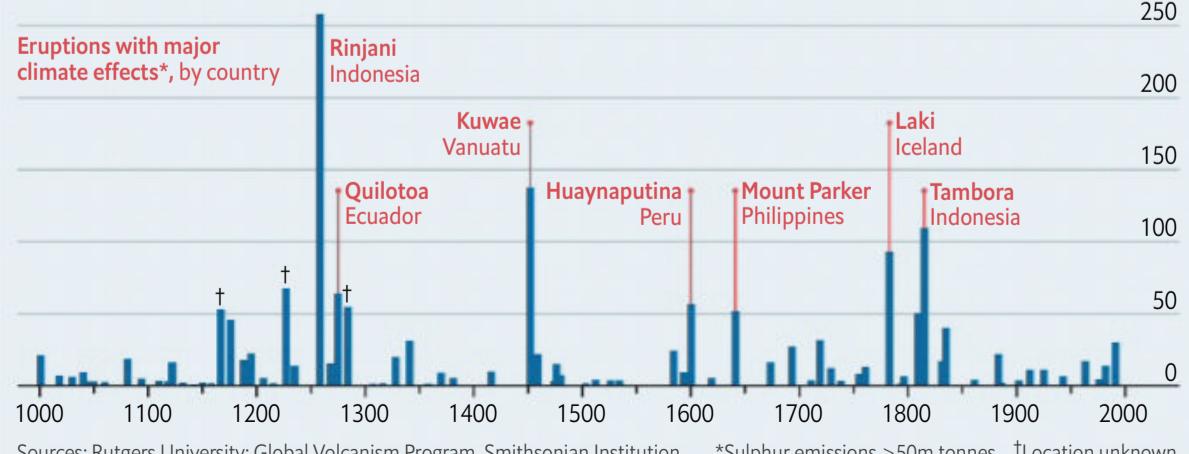
Sudden impact

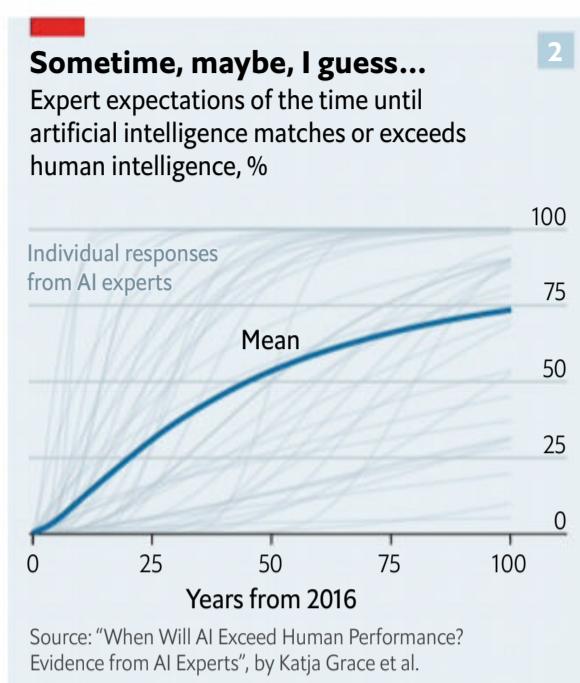
In general, scientists and policy wonks who think about these things suspect that grid operators are not as prepared as they should be for a Carrington level storm. But some see progress. William Murtagh, who works at the Space Weather Prediction Centre in Boulder, says American policy on space weather has come a long way, to the point where there are now bipartisan bills going through Congress and that grid operators are being required to certify the excess voltages their systems can cope with.

America does, at least, have a solid plan: the National Space Weather Strategy and Action Plan, published in March 2019. It also has an early warning system. The National Oceanographic and Atmospheric Administration, which runs the space-weather centre in Boulder, also runs a satellite called DSCOVR. Rather than orbit the Earth, DSCOVR circles a point on a line between the Earth and the Sun—the point about 1.5m kilometres inward from Earth where the two bodies’ gravitational attractions balance each other out. Conceived of mainly as a way of looking back at an Earth spinning in eternal sunshine, DSCOVR also measures the stream of charged particles ►

Regular irregularity

Volcanic eruptions, sulphate aerosol injected into the stratosphere, tonnes m⁻²





▶ flowing past it from the Sun. When a storm passes by, the satellite's operators down in Boulder will hear about its approach from DSCOVR between 15 minutes and an hour before the brunt of it hits the magnetosphere, depending on its speed.

There is little planning anywhere for what to do in response to a volcanic eruption large enough to cool and dry the climate around the world, as the eruption of Tambora, a volcano in Indonesia, did in 1815. The fact that the stratospheric sulphate particles which bring about such cooling leave a distinctive residue in glaciers and ice sheets reveals the frequency of these eruptions (see chart 1 on previous page). But there is no pattern which says when another one might be due.

Careful remote monitoring of the world's volcanoes, including those that are apparently dormant, should reveal if one is likely to blow in a big way. Again, satellites can play a key role. A technique called radar interferometry makes it possible to see when mountains start to deform as a result of the pressure of the magma building up beneath and within them. Scientists at the University of Bristol are using such data from past eruptions to train machine-learning systems on how to see future ones. Very large eruptions should be fairly easy to anticipate; but quite how large one will prove, and thus quite what effects to expect, will be hard to say in advance.

There are also projects devoted to looking for potentially hazardous asteroids. Here, though, the threat is not what it was. When people began to worry about asteroid impacts in the 1980s, the focus was on events smaller than the dinosaur-killer—too rare to worry about—but still big enough to disturb the climate in the way a very large volcanic eruption does, and thus do damage worldwide rather than just wiping clean some random, and probably sparsely inhabited, part of the planet's surface. Theoretical models of the population of near-Earth objects suggested there

might be 1,000 or so big enough to wreak such havoc, of which only a hundred or so had been discovered. Subsequent observation has found most of the rest of them, and they are all, at the moment, keeping a safe distance. As of 2019 the data suggested that only around 43 near-Earth objects of a potentially climate-changing stature were still to be discovered, according to Alan Harris of MoreData!, a research outfit.

As the need to worry about big asteroids has diminished, though, interest in spotting smaller ones has grown—as has an urge to be able to swat them aside. Next year America will launch a space mission called DART (Double Asteroid Redirection Test) which will change the orbit of a small asteroid orbiting a larger one, thus demonstrating the first step towards a “planetary defence” capability. It is an exciting, dramatic idea. If your aim were to effectively fund ways of lowering the death toll in future catastrophes, though, it would probably not strike you as the best use of \$300m. Investing in early-warning systems for pandemics (see Science and technology section) would seem a much better bet.

Every which way

It is possible to imagine better early-warning systems for pandemics, solar storms and volcanic eruptions, and carefully considered plans which would use that knowledge to reduce the hazard. What of the other big bads?

Existing anthropogenic risks are already quite well dealt with. There are aspects of climate change that could and should be better monitored—methane sources, for example, and changes in soil moisture—but the subject is hardly systematically understudied. It is in the nature of nuclear weaponry that its possess-

ors spend a great deal of time monitoring each other's capacities and intentions. As for those trying to develop nuclear weaponry covertly, the Comprehensive Nuclear-Test-Ban Treaty Organisation operates a remarkably acute network of monitoring stations that brings together seismometers, radioisotope sensors and detectors of low-frequency sound waves which makes setting off a nuclear weapon of any size without being noticed effectively impossible.

Hazards that do not yet exist but may soon come to pass present a harder problem. The prospect of synthetic biology producing advanced bioweaponry is a fitting target for traditional intelligence methods, coupled with the sort of monitoring that might be used to detect novel natural pathogens, too. Countermeasures might emerge from “precision medicine” approaches built around platform therapies which can be reprogrammed for various diseases. Deadly AIs, though, are a different kettle of pseudofish. Today's AI systems, powerful as they are at recognising patterns, are worrying only to the extent that people use them in worrying ways; in themselves they are no more dangerous, or sentient, than stamp collections. That may change. Most in the field seem to think that one day AIs will be to give humans a real run for their money. But their views as to when vary widely (see chart 2). Such disparity does not mean no threat will emerge. It does suggest that no one really knows what it may look like.

As a field and a threat, though, AI, like synthetic biology, does have the advantage of emerging from an open academic culture. Its expert practitioners eschew closed publication and discussion. This makes it plausible, at least, to monitor both fields.

Getting such risks taken seriously will never be easy. It is to some extent contrary to human nature. Humans assume that the future will be like the past; they prepare for things they have experience of. Mr Murtagh says that grid operators at high latitudes take solar storms more seriously than others do because of experiences like that of Quebec in 1989. Countries hit hard by SARS have, by and large, done better against covid-19 than those which never had to get to grips with the previous pandemic. When it comes to the truly novel, no one will have that core of experience to build on.

Where experience fails, though, science and imagination may sometimes fill in. Humans often look to the future like Herbert's superstitious and fanatical mates staring up at the Carrington event's strange skies, filled with “dire forebodings”. But it can be seen in other ways. You do not have to believe in trillions of people living the good life for ever. Just that there are things to come which are worth caring about, and worth protecting from those threats that reason reveals. ■





Nuclear weapons

Viva Las Vegas?

A resumption of nuclear tests would shake up more than Nevada

THE CARS drove an hour out of Las Vegas and lined up along the edge of the Yucca Flat on April 22nd 1952. They pointed towards the desert, as if it were a drive-in cinema. Newsmen, among them Walter Cronkite, had gathered for a killer performance: the first televised nuclear test, ten miles away at the Nevada Test Site. "This is the greatest show on Earth," an army captain assured soldiers in trenches, there to practise storming across an irradiated battlefield, ahead of a similar test the next year. "You won't be hurt. Relax and enjoy it."

Over four decades, America's government conducted 928 nuclear tests in Nevada. The mushroom clouds could be seen from Las Vegas, where the chamber of commerce cannily issued tourist calendars with dates, times and plum viewing spots. On September 23rd 1992, the ground shook for the last time. President George H.W. Bush, following the Soviet Union's example the previous year, joined a moratorium

on nuclear-weapons testing that has been extended by every president since. Yet some fear that America's 28-year nuclear lull may be drawing to a close.

On June 23rd the State Department told Congress that it suspected that Russia had conducted "nuclear weapons-related experiments that have created nuclear yield", in violation of the Comprehensive Test Ban Treaty (CTBT). It also said that excavation and other activity at China's Lop Nur test

site "raise concerns regarding China's adherence to its testing moratorium". All three countries signed the CTBT in 1996, but only Russia has ratified it. The treaty would not enter into force until 44 designated countries ratify it; of those, India, Pakistan and North Korea have not even signed up.

Most experts say the accusations are thin gruel. America itself does in Nevada much of what it says China is doing at Lop Nur. Moreover, all three countries conduct "subcritical" tests, in which there is no critical mass of plutonium, no chain reaction and therefore no yield. Under the CTBT, these are kosher. Some, however, can be outwardly indistinguishable from illicit tests with tiny yields. In 1997 a Russian "test" turned out to be an earthquake.

But the charges are ominous. In May, according to the *Washington Post*, American officials considered conducting a "rapid test" to demonstrate the country's nuclear prowess, with the intention of forcing Russia and China into trilateral nuclear talks, something that China has thus far resisted.

Detonating a nuke is relatively straightforward. American law requires the government to be able to conduct a nuclear test within two to three years of a presidential order. The problem is that it can be done properly, or quickly, but not both. A "fully instrumented" test, designed to capture useful data, would take at least 18 months,

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► according to the National Nuclear Security Administration (NNSA). But a crude detonation designed as a theatrical act of chest-beating, rather than a meaningful scientific endeavour, could be slapped together in months, well before Mr Trump's first term concludes in January.

A test would cost somewhere between tens and hundreds of millions of dollars, according to insiders. And although the Nevada site is kept in working order, the population of Las Vegas and its environs has more than tripled since 1992, coming uncomfortably close. "When they used to do underground tests, it would at times rock buildings in Las Vegas," says Cheryl Rofer, who worked at Los Alamos as a scientist from 1965 to 2001 (though modern tests would have far smaller yields). An editorial in the *Las Vegas Sun*, one of the city's newspapers, offered a pithy response to the idea of churning up the ground again: "No. Hell no. Not now. Not ever." The sentiment is widespread. Polls conducted last year show that 72% of Americans (and 59% of Republicans) disapprove of testing.

Unsurprisingly, the Department of Energy, which oversees nuclear weapons, and its laboratories, like Los Alamos in New Mexico, is not keen on the idea. Nor are the Pentagon or the armed forces. On June 16th a dozen distinguished scientists, many formerly associated with America's nuclear laboratories, wrote an open letter to Mitch McConnell, the Senate majority leader, arguing that explosive testing "would serve no technical or military purpose". That is because there are now sophisticated ways to inspect and improve nuclear weapons without setting them off.

America spends eye-watering sums to tend its arsenal; the NNSA requested nearly \$16bn for the coming fiscal year. That buys some impressive kit. Modern supercomputers can simulate thermonuclear explosions with remarkable fidelity. In 1993, shortly after the last test, the world's most powerful supercomputer, at Los Alamos,

could manage less than 60 gigaflops, a measure of computing speed. Today's equivalent, at the Oak Ridge National Laboratory in Tennessee, can exceed 148 petaflops, which is more than 2m times faster. American government laboratories own six of the world's 20 fastest supercomputers, though China has been catching up. The debate over testing is in part a "conflict of generations", says one senior scientist: many who cut their teeth on explosive tests distrust the new, virtual ways.

America also has an enviable pile of data from its old tests, having done more than every other country put together (see chart). It conducted 22 tests for every Chinese one. Its rivals would therefore have the most to gain from any resumption of testing. American data may be superior, too. Steven Pifer, a former American diplomat now at Stanford University, recalls visiting a Soviet test site in Kazakhstan in 1988 where the vertical test shafts were less than half the width of America's, leaving far less space for instruments. India's lone test of a hydrogen bomb is widely thought to have been a fizzle. Pakistan is eager to re-

fine smaller nukes that could be aimed at Indian tank columns. The rush to testing might spell doom for the Nuclear Non-Proliferation Treaty (NPT), whose non-nuclear members are fed up with the lack of tangible progress towards disarmament.

Many experts reckon that even the truculent Mr Trump would shy away from a test. The aim at present, they suggest, is pactocide. Mr Trump's administration is stacked with arms-control sceptics who never wanted America to sign the CTBT in the first place, viewing it as an irksome fetter on American power.

Having swept aside a series of other agreements—a nuclear deal with Iran in 2018, the Intermediate-range Nuclear Forces (INF) treaty with Russia last year and the Open Skies treaty in May—the treaty-phobes spy an opportunity to slough off the CTBT, too. In his recent book, "The Room Where It Happened", John Bolton, America's national security adviser until September, writes that "unsigning" it "should be a priority". Mr Bolton is persona non grata in the White House these days, but his diplomatic nihilism lives on. ■

Collecting

Instant museums

WASHINGTON, DC

Blue-chip collectors are scurrying to preserve artefacts from the recent protests

BY COVERING the high steel fence that briefly surrounded the White House this month with slogans, messages and the portraits and names of black Americans killed by police, protesters transformed it into a tableau of anger and grief. Before the barrier was taken down, they carefully moved the signs onto a nearby wall in the newly named "Black Lives Matter Plaza". Washington's Smithsonian museums are now taking preservation efforts a step further.

Curators from two institutions on the Mall—the National Museum of African-American History and Culture (NMAAHC) and the National Museum of American History—along with the Anacostia Community Museum, in the city's predominantly black south-east, are working together to collect remnants of the biggest protests seen in America in half a century. The venture reflects an increasing enthusiasm among museums for "rapid-response collecting": gathering artefacts as big moments unfold.

Though the term was coined by the Victoria & Albert museum in London, which has a gallery dedicated to objects collected in this way, the NMAAHC has been in the vanguard of the movement. Its recorded collection includes a placard reading "Baltimore: An Uprising not a

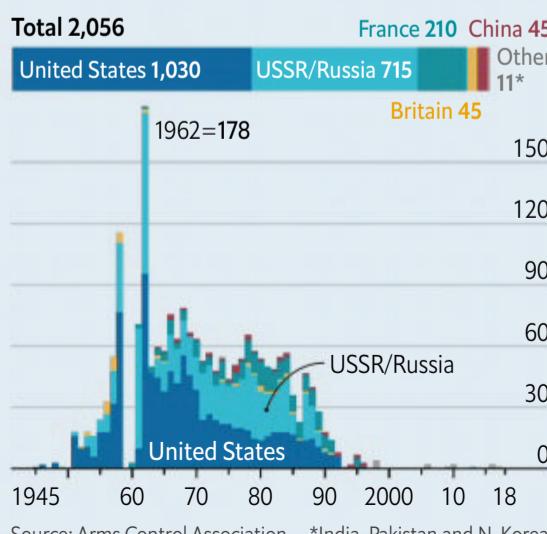
Riot!" from the protests sparked by the killing of Freddie Gray in 2015 ("Medium: ink on paper with metal, cardboard") and a broom used to clear up afterwards ("Medium: wood, straw, wire").

Similar efforts to gather protest paraphernalia are being made by museums across America. In a digital era in which events are recorded in great detail, it may seem odd that often ordinary objects have assumed such value. But digital records are easily lost: online storage systems become obsolete, and laws often get in the way of archiving videos. Digital material is more compelling viewed alongside the physical objects which bring most people to museums. Establishing provenance, which can be complicated for an item collected only a few years later, is straightforward if it is picked up at the scene.

Yet collecting museum pieces in this way can still be a delicate business. Curators have begun the collection process slowly, hanging out, telling demonstrators about their work, and taking the signs they are given. There is no plan yet to display them, says Aaron Bryant, a curator from the NMAAHC, though he expects they will take their place in a wider exhibition. "Our first and most urgent priority is to preserve," he says.

Toe to toe with the Russies

Nuclear-weapons tests, 1945-2018, estimate



The course of covid-19

Unhappy medium

Decoding the confusing messages of the coronavirus epidemic

ON JUNE 21ST the World Health Organisation announced a record increase in coronavirus cases round the world: 183,000 new cases during the previous 24 hours, more than at the height of the pandemic in April. A fifth were in the United States, which faced—as Anthony Fauci, an infectious-disease expert, told Congress—a “disturbing surge” in infections.

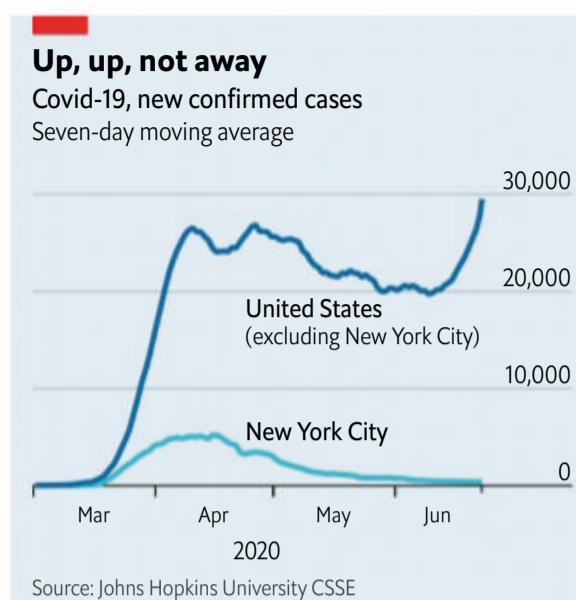
Five days before, Mike Pence, the vice-president, wrote an article in the *Wall Street Journal* pouring scorn on “alarm bells over a ‘second wave’ of coronavirus infections”. Pointing to falling numbers of deaths, he claimed that “panic is overblown...we are winning the fight against the coronavirus”. President Donald Trump later told Fox News the virus would just “fade away”.

Such contradictory claims are more than playing with numbers. They reveal a changing pattern of infection which is not only confusing but, in the final analysis, worrying for the future of the pandemic.

America’s death toll and caseload are high, and not only in absolute terms. Per head, it has had twice as many cases as Europe and about 50% more deaths. The number of new cases rose 42% in the two weeks to June 21st, and this national average disguises a more disturbing trend. America’s totals have been dominated by the terrible outbreak in New York City. Greater New York has accounted for about a third of all deaths. If you strip out the area, you find new-case numbers in the rest of the country barely budged in May, rose in June and are now as high as they were at the height of the pandemic (see chart). Outside New York, America has failed to halt the growth of the coronavirus.

The pandemic has spread as it has grown. On June 24th infections were rising in 27 states. In 18, new cases were at record levels. In the early days, the epidemic was concentrated in the north-east. Now it is moving to the sunbelt. Ten of the states where numbers are rising fastest are in the West; they are also rising in all but one of the states of the Confederacy, as well as one confederate territory (Arizona).

This is changing who gets the disease, as well as where. The epidemic began as an infection of inner cities, minorities and Democratic areas. It is now spreading through suburbia, among whites and in Republican places. Bill Frey, a demographer at the Brookings Institution, a think-tank, has been tracking the course of the



infection by looking at counties which report significant rises in cases (meaning, by 100 or more per 100,000 people). Early in the disease, at the end of March, 81% of people living in such counties were in cities; 48% were white (less than the white share in the population) and a third had voted for Mr Trump in 2016. In the two weeks to June 14th, 2% lived in inner cities; 70% were white and 58% had voted for Mr Trump.

The spread of disease has not (so far) been accompanied by the disasters that were widely feared. There has been no repetition of New York state’s catastrophe, with its almost 400,000 cases; California, a more populous place, has had less than half that number. The death toll has fallen to roughly 500 a day, compared with more

than 2,000 at the peak. There is some evidence that the disease is getting less fatal as it spreads. In California and Florida, deaths from covid-19 are running at about 3% of the number of cases. That is lower than in New York, where the figure is 8%, and far below the worst-hit countries in Europe, where it is 14–18%. (It should be said that these numbers are notoriously unreliable because they vary according to the testing regime; still, the disparity is striking.)

All this shows there have been successes in America’s response to the pandemic, as well as problems. Compared with the number of cases, its death toll is modest, perhaps because victims tend to be relatively young. Its hospitals and doctors seem to be getting better at treating the disease. Even the Black Lives Matter protests have not been super-spreader events, perhaps because (suggests a study by Dhaval Dave of Bentley University, Massachusetts) other Americans reacted by not going out, limiting the spread of infection.

But these successes do not compensate for the failures. Rather, they leave America stuck between two poles. New cases are too low to justify reimposing lockdowns in order to control the virus. But they are too high to reopen states safely and resume normal life. It is an unhappy medium. At best, America is likely to stumble along with its current levels of infection over the next few months. At worst, as Dr Fauci told Congress, America could face a second, more damaging wave this winter. ■

State-funded media

Freedom FM

WASHINGTON, DC

The White House takes aim at American soft power

IN COMMUNIST times, recalls Stoyana Georgieva, editor-in-chief of the Bulgarian news website mediapool.bg, her grandfather would listen in secret to the American-sponsored shortwave radio stations that were among the few sources of uncensored news behind the Iron Curtain: Voice of America (VOA), Radio Free Europe and Radio Liberty (RFE/RL). When she became a reporter for RFE/RL herself in the 1990s, “it wasn’t just a media outlet, it was a cause...a window to the life that we could have some day.” Over the past decade, when news media in much of eastern Europe have been taken over by governments or oligarchs, RFE/RL has again become a crucial source of independent reporting.

Now the independence of RFE/RL itself is in question. On June 4th the Senate confirmed Michael Pack as the new head of the

US Agency for Global Media, the parent organisation of RFE/RL and VOA. Mr Pack, a filmmaker and ex-president of the paleo-conservative Claremont Institute, is a close ally of Steve Bannon, formerly the president’s chief strategist. On June 15th the director of VOA resigned. Two days later Mr Pack fired the heads of RFE/RL and four other organisations in his purview: Radio Free Asia, the Middle East Broadcasting Network, the Office of Cuba Broadcasting and the Open Technology Fund, which builds software for secure news gathering. Government interference in news gathering and editorial decisions is prohibited by law. But firing the directors sent a clear signal.

To those who rely on the American news agencies, it all seemed dismally familiar. In Romania, Bulgaria, Hungary or Russia, the sequence is routine. An independent news

► outlet is taken over by allies of an oligarch or political party. The editors resign or are fired. Next comes an abrupt shift to a government-friendly editorial line. Can the same happen in America? "I never imagined I would witness something like this," says Marius Dragomir of the Central European University in Budapest.

Part of the anxiety stems from Mr Pack's cv. The Claremont Institute has produced some of the most radical alt-right thinking of the Trump era. (In 2016 it published "The Flight 93 Election", an essay arguing that Hillary Clinton's election would lead to the destruction of America.) But part stems from his confirmation process. Opposed by Democrats and backed only tepidly by Republicans, Mr Pack's nomination languished in the Senate for two years.

Then in April the White House unexpectedly attacked voa for allegedly praising China's response to covid-19. (It had republished an innocuous Associated Press article on the reopening of businesses in Wuhan.) Suddenly Republicans pushed Mr Pack through on a party-line vote.

The roles played by the American-funded news agencies vary. The most important in eastern Europe is RFE/RL, which broadcasts in native languages and sponsors local subsidiaries. In Romania, Bulgaria and Ukraine, where most newspapers and television channels are owned by oligarchs who use them to slander their enemies, it provides a rare source of impartial information. In Hungary, nearly all media have fallen into the hands of businessmen friendly with Prime Minister Viktor Orban or of a foundation controlled by his Fidesz party. To counter that, RFE/RL plans to open a branch this autumn.

Independent news websites like Atlatzso in Hungary and Hromadske in Ukraine have excellent investigative reporters, but they are vulnerable to retaliation.



The sound of liberty

America's diplomatic support for RFE/RL outlets, like Bulgaria's Svobodna Evropa, helps protect them. Then there are authoritarian regimes like Vietnam and China. There, voa and the regional services (RFE/RL, Radio Free Asia and the Middle Eastern and Cuban outlets) serve the same function as during the Soviet era: getting information past the firewalls of censors.

Of course, Mr Pack could yet hew to the legal firewall that protects the agencies' editorial independence. Peter Kreko of Political Capital, a Hungarian think-tank, praises the plans developed by Jamie Fly, the fired RFE/RL head. One test will be whether the news services go easy on those

whom the White House favours. (Last year America's ambassador in Budapest unsuccessfully lobbied RFE/RL to promise that its Hungarian outlet would not be too harsh on Mr Trump's friend, Mr Orban.)

At risk is the credibility these agencies have built over half a century of independence. Their reporters are worried. "We are so stunned by the news that no one knows what to expect," says a staffer at an RFE/RL subsidiary in eastern Europe. Mr Pack's new appointees should respect their agencies' editorial freedom. Otherwise, audiences will think them just as untrustworthy as those controlled by their own oligarchs and politicians. ■

Clarence Thomas

Radical justice

NEW YORK

Will Justice Thomas stick it out for a 30th year on the court?

WHEN HIS nomination to the Supreme Court was approved by a 52-48 Senate vote in 1991, Clarence Thomas was in the bath. "Whoop-de-damn-doo!" he cried to his wife, who had delivered the news. Nearly three decades after his confirmation battle, in which he was bruised by charges of sexual harassment, America's second black justice has cultivated a defiant jurisprudence. He also has the distinction of being Donald Trump's favourite judge.

The most conservative jurist on the Supreme Court, now aged 72, disdains affirmative action, abortion and gay rights (but views gun rights as fundamental). He rebuffs challenges to the death penalty and seeks to rein in federal power and agencies like the Equal Employment Opportunity Commission, which he chaired under Ronald Reagan in the 1980s. His lone vote to gut the Voting Rights Act in 2009 presaged *Shelby County v Holder*, a 5-4 decision that did just that four years later. Justice Antonin Scalia (who was a close friend) once called him a "bloodthirsty" originalist: he hews to his perceptions of what the constitution meant when it was ratified.

Mr Thomas has travelled a lonely road. He grew up impoverished in Georgia in the 1950s, dropped out of a Catholic seminary and embraced black nationalism—the militant approach of Malcolm X and Stokely Carmichael—as a college student. At Holy Cross in Worcester, Massachusetts, Mr Thomas and friends founded a black student union to forge "a sense of racial identity and group solidarity" and "expose and eradicate social inequities and injustices." Some of the organisation's demands were similar to those heard on campuses today:

more black students and faculty, courses in black history and literature, celebration of black culture. Other principles might sound less familiar: the "black man" wants "the right to perpetuate his race" and "does not want or need the white woman."

Mr Thomas's radicalism crested in 1969 when he took part in a sit-in to protest against campus recruiters for General Electric, a company thought to discriminate by race. The next year, he joined a violent march on Harvard Square against the Vietnam war and the jailing of Black Panther leaders. Back at Holy Cross, he resolved to quell his anger at the assassination of Martin Luther King and at the Catholic church's failure to stand up to racism. After a dalliance with leftist activism, he wrote in his memoir of 2007, "I grew up."

Mr Thomas's move to the right began at Yale Law School, where his admission under a racial-quota programme became, he wrote, "the soft underbelly of my career". White liberals might not be openly racist, but they were "more likely to condescend to blacks" and (he discovered after graduation) just as unlikely to offer him a job. When at last he secured a position working for Missouri's attorney-general, Mr Thomas found his muse in Thomas Sowell, a Marxist-turned-conservative economist. Black grit and self-sufficiency, Mr Sowell wrote—not reliance on white benevolence—were the way forward.

As a lawyer for Monsanto and through eight years in the Reagan administration, Mr Thomas became increasingly sceptical that racism could be unravelled from the fabric of American society. "There is nothing you can do to get past black skin," he ►

► said in 1987. "You'll never have the same contacts or opportunities, you'll never be seen as equal to whites."

Opportunity came in 1990 when George H.W. Bush tapped Mr Thomas for the Circuit Court of Appeals for the District of Columbia and, 16 months later, for the seat that Thurgood Marshall, the first African-American on the Supreme Court and an icon of civil rights, would soon vacate. Mr Bush introduced his nominee as the "best-qualified" for the job, a claim that even Mr Thomas saw as "extravagant".

This experience as a wary beneficiary of affirmative action echoes in Justice Thomas's dissent from a 2003 ruling, upholding the University of Michigan law school's race-conscious admissions policy. Justice Thomas quoted Frederick Douglass: "The American people have always been anxious to know what they shall do with us...Do nothing with us!" Well-meaning yet "meddling" admissions officers consumed by "a faddish slogan of the cognoscenti"—classroom diversity—were discriminating on the basis of race and undermining black students. Whites should give a black applicant not a leg up but, in Douglass's words, "a chance to stand on his own legs."

Justice Thomas's votes almost always match those of his conservative colleagues, but they often reflect his idiosyncratic views of race in America. Burning a cross is not free expression protected by the First Amendment, he wrote in a dissent in 2003, as it is conduct, not speech. Government vouchers for religious schooling not only square with religious liberty but save "poor urban children otherwise condemned to failing public schools," he wrote the previous year. But de facto segregation in those schools, he argued in 2007, cannot be a government concern, as "racial imbalance can also result from any number of innocent private decisions, including voluntary housing choices."

This mindfulness of race extends to disparate matters. The right to bear arms, Justice Thomas contended in 2010, was often "the only way black citizens could protect themselves from mob violence" after the civil war. Last year he dissented from a decision overturning the conviction of a man whose prosecutor systematically struck off black jurors. (He thought the jurors were struck off for race-neutral reasons, and also believed the man was guilty.) In an abortion case, he tied the pro-choice movement to America's history of racist eugenics.

Only one of these adventures in creative jurisprudence attracted a second signature. Some included his frequent call to reconsider—and overturn, if necessary—Supreme Court rulings that went awry. Justices "are obligated to think things through constantly", Mr Thomas says, "to re-examine ourselves, to go back over turf we've already ploughed." When a decision



Radical conservative

is "demonstrably erroneous", he wrote in 2019, the doctrine of *stare decisis*, letting precedents stand, must give way.

His jurisprudence may be harsh, but Justice Thomas is gregarious and warm. During oral arguments he jokes with liberal Justice Stephen Breyer, and offers a hand to even-more-liberal Justice Ruth Bader Ginsburg as she descends the stairs. He seems to relish his independent pen. A tally by Adam Feldman, a Supreme Court statistics guru, reveals he writes 24 opinions per year compared with 15, on average, for his eight colleagues. That prodigious output may seem to contradict his famous reticence during oral arguments. Until he found his voice last month for two weeks of pandemic-adapted hearings conducted by telephone, Justice Thomas averaged less than a minute of air-time per year over his nearly three decades on the bench.

With Mr Trump's electoral prospects and the Republicans' hold on the Senate both looking shaky, Justice Thomas faces an option Justice Ginsburg rejected between 2009 and 2014. The leader of the court's liberal wing could have stepped aside and given Barack Obama a third high-court appointment before the Senate flipped to Republican control in 2015. Now, at 87 and after four bouts of cancer, her nail-biting decision to try to stick it out seems irresponsible to some on the left.

Melissa Murray, a law professor at New York University, thinks Justice Thomas may be motivated to stay by the prospect of a 6-3 conservative majority once Justice Ginsburg goes. His former clerk Erik Jaffee says activists on the right may try to ease him out before November, to ensure his seat is filled by a young conservative. But, he says, Justice Thomas "sure as hell is not thinking about retiring." ■

Immigrants

Another brick

CHICAGO

Highly skilled migrants are not welcome

FOUR YEARS ago Donald Trump set out a ten-point plan for reshaping a chaotic immigration system. Beyond building a wall and deporting foreigners, he vowed America would "choose immigrants based on merit", while imposing controls "to boost wages and to ensure that open jobs are offered to American workers first."

To a remarkable extent he has since found ways to choke off inflows of foreigners. Before covid-19 hit, his administration cut arrivals of undocumented migrants by striking a deal last year with Mexico's government to prevent Central Americans claiming asylum at the border. It has greatly reduced the number of official resettlement opportunities for refugees, where America had led the rest of the world for decades. It also made it harder for those already in America to apply for the green cards that allow them to live and work in the country. Now it is using the economic slump to justify a clampdown on high-skilled migrants too.

A broad executive order issued on June 22nd suspends the issuance of four types of visa: H-1Bs, widely used by employees at tech companies; H-2Bs, for lower-skilled, often outdoor workers; J visas, for au pairs, temporary summer workers and some academics; and L visas, for professionals who are moved within companies.

The practical impact is hard to pin down. The Migration Policy Institute (MPI) in Washington reckons 29,000 people will see their H-1B visas blocked in the second half of 2020. Another 72,000 people had expected to travel on J-1 "exchange visitor" visas, typically used for temporary summer jobs. In theory, therefore, the new rules could affect hundreds of thousands.

In reality, however, few visas were being issued, after consulates suspended work during the pandemic. It is also impossible to know how strictly the order will be implemented. Demetrios Papademetriou, of the MPI, says "you can drive a truck through" an order with as many waivers as this one has. Workers who are exempt include those necessary for the secure supply of food, for medical research or for reasons of "economic recovery". They could turn out to be numerous, but statistics on that are unlikely to arrive before the end of the year.

Lexington | Xi bangs his drum

John Bolton destroys Donald Trump's signature foreign-policy boast



AT TWO RALLIES this week President Donald Trump really let China's Communist Party have it. Fully three times he referred to covid-19 as the "kung flu". This was a significant escalation of his more tentative (though still shocking at the time) reference to the "Chinese virus" in March. Forewarned by the president's terrific build-up ("It's a disease, without question, has more names than any disease in history..."), the unmasked MAGA crowds loved it. For many others, however, the case for Mr Trump's fabled toughness on China has rather fallen apart.

The main service of John Bolton's White House tell-all, "The Room Where It Happened", is to describe this disintegration in meticulous, largely dispassionate and thus credible detail. Mr Trump's expressed commitment to pegging back a more assertive China was timely—even if less agenda-setting than often suggested, his former national security adviser writes. It "embodies" a pre-existing bipartisan and cross-government desire for a tougher US posture towards China. Yet the president's efforts were from the start cynical, contradictory and fundamentally self-defeating.

The administration's permanent state of chaos—in which "panda-huggers" such as Steve Mnuchin and dragon-slayers like Robert Lighthizer and Peter Navarro vied to influence the daily policy lurches—played a role in that. But the main reason was Mr Trump. In Mr Bolton's telling, he showed little ambition and none of the patience necessary to address the ways in which China games the economic system. He had no interest in pushing back on Xi Jinping's growing authoritarianism; he admired it. Herding a million Uighurs in prison-camps was "exactly the right thing to do", the president allegedly told his Chinese counterpart more than once. (His fawning before Mr Xi—you're the "greatest leader in Chinese history"—is often toe-curling.) Mr Trump's sole concern, in Mr Bolton's telling, was to strike a trade deal that he could spin to his base as a win, however insubstantial its contents. In time this became his explicit negotiating pitch: Mr Bolton describes the president "pleading with Xi to ensure he'd win" re-election by promising to buy more American soybeans and wheat. It was apparently for this that Mr Trump waged a trade war estimated to have cost 300,000 American jobs before the pandemic struck.

China, which was also suffering badly from the tariffs, must

have been amazed that America would settle for so little. And, given Mr Trump's desperation for the "phase one" trade deal signed in January, there was always going to be a fair chance it would be able to wriggle out of honouring its commitments. Sure enough, China is already undershooting its promise to spend \$211bn on American goods and services by the end of the year—such that Mr Navarro declared the deal "over" this week. The president tweeted back that, no, it was "fully intact". Mr Trump's coarsening of America's political culture is often described, in Daniel Patrick Moynihan's artful phrase, as a case of "defining deviancy down". He is increasingly defining toughness on China down, too.

The collateral damage from Mr Trump's trade policy goes beyond America's hard-hit farmers and factories. Mr Bolton describes the president intervening to block routine law enforcement of Chinese corporate abuses—including the sanctions busting of ZTE, a telecoms firm—for fear it would hurt his prospect of a deal. America's allies were "discouraged and confused" by such capriciousness. China appears to have been encouraged. It is hard to see any sign—in its assertiveness during the pandemic and otherwise—that Mr Trump has caused it to rethink its economic model or global influence campaign.

Perhaps the best that can be said for Mr Trump's blundering is that it didn't produce even worse outcomes. The US-China relationship is in poor shape; yet he has shown it to be more resilient than many feared. It no doubt helped that Mr Trump has little interest in China's most neuralgic strategic concerns. If he wins a second term, Mr Bolton predicts, he may well "abandon" Taiwan.

Another consolation is that the president's effort to weaponise China electorally appears to be failing. Surveys suggest Joe Biden enjoys the same seven-point lead on handling China that he has overall. It seems Mr Trump's ambition to define himself as strong on China and "Beijing Biden" as weak has been overtaken by events. Who cares that he barred travellers from China in February when the European Union is considering banning entrants from virus-ravaged America today? Especially—if Mr Bolton is right—when Mr Trump's China policy is partly to blame for that tragedy. In a television interview, he alleged: "Trump didn't wanna hear about [the virus]...He didn't wanna hear bad things about Xi Jinping...He didn't wanna hear bad things about the Chinese economy that could affect the 'fantastic' trade deal he was working on."

A third upside, given undimmed bipartisan enthusiasm for confronting China, is that Mr Trump has provided a number of lessons in how not to go about that. And the weaker he looks, the more they are being heeded. Almost every Republican in Congress supported the Uighur human-rights bill that Mr Trump grudgingly signed into law last week. A bipartisan Tibet human-rights bill is in the pipeline. Meanwhile Mr Biden's campaign, which three months ago was being pushed to sound more strident on China by the protectionist left as well as by the president, is instead starting to sound more thoughtful.

Have you seen her, have you heard?

A senior adviser to the former vice-president on China describes plans to identify and invest in the sources of America's competitiveness. He cites the country's economy, alliances and democratic values. It is too early to detect in this the makings of a successful China policy. Mr Biden has got a lot of foreign policy wrong over the decades. But it does have the advantage of sounding serious. "Being wrong" about America's interests is another thing Mr Trump has defined down. ■

**Venezuela**

The many machinations of Nicolás Maduro

How a despised regime plans to win this year's legislative election

WHENEVER HE APPEARS on Venezuelan state television, Nicolás Maduro is introduced as "*el presidente constitucional*", the constitutional president. The announcer often reminds viewers that he is "legitimate", too. The reminder is needed because Mr Maduro is a dictator. It shows, too, the regime's craving for legitimacy. Mr Maduro's belief in his right to rule comes in part from the status he claims as the heir of the late Hugo Chávez, the regime's founder (pictured, far left) and, less plausibly, Simón Bolívar, Venezuela's liberator (centre). He also wants the affirmation that comes from a popular mandate, even though just 13% of Venezuelans back the regime, according to Datanálisis, a polling firm. To that end, he has sought to keep democracy's form even as he drains it of content.

With a legislative election due by December, this month the regime took two big steps to ensure it will not lose. The current National Assembly is the only arm of the state controlled by the opposition. Its president, Juan Guaidó, is recognised by

nearly 60 countries as Venezuela's interim president (on the grounds that Mr Maduro rigged his re-election in 2018). Mr Maduro has in effect stripped the legislature of its powers. Now he is manoeuvring to bring it under direct control of the regime.

On June 12th the Supreme Court, an appendage of the regime, appointed new members to the National Electoral Council (CNE), which oversees elections. The CNE's reform has been a central demand of Mr Guaidó and his foreign supporters. This shake-up is not that reform. Three of the five new members are allies of the regime, like the last slate. The three are subject to sanctions by the United States and Canada for human-rights abuses or financial

crimes or both. The other newcomers are members of the opposition who have broken with its leaders.

To guarantee victory in the parliamentary vote, though, more is needed. On June 15th the Supreme Court ruled that control of one opposition party, Democratic Action, should pass to Bernabé Gutiérrez, who was previously expelled from that party for "conspiring with the regime of Nicolás Maduro". Mr Gutiérrez is the brother of one of the CNE's new members. On the next day the court suspended, then replaced, the directors of Justice First, whose best known member is Henrique Capriles, once a presidential candidate. The regime has not yet targeted Mr Guaidó's Popular Will party. But the attorney-general proposes branding it a terrorist organisation.

The regime is assaulting an opposition in disarray. After 18 months of failed attempts to unseat Mr Maduro, Mr Guaidó is struggling to look relevant. He gave initial backing to a hare-brained plot for American mercenaries to kidnap Mr Maduro, which flopped in March. Mr Guaidó's approval rating has dropped from 61% in February 2019 to 26%. The covid-19 pandemic has further constrained him. Mr Maduro has locked down the country, thwarting protests and reinforcing the impression that his rival counts for little.

Mr Guaidó and his allies must now decide how to react to fraud in the legislative election. Some factions of the opposition ►

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► may participate to guarantee their political futures, as some did in the presidential election in 2018. That would confuse opposition supporters and give Mr Maduro a chance to claim the vote is fair. "Such dynamics will all but guarantee that the opposition loses control of the National Assembly," says Eurasia Group, a consultancy. Opposition legislators who are not re-elected would lose immunity from prosecution, points out Crisis Group, a think-tank. That would force them into exile.

If Mr Guaidó no longer leads the legislature, his foreign allies will also have to have

a rethink. Some already regret recognising him as interim president. "It seemed like a good plan at the time," said one forlorn Western diplomat in Caracas. Mr Guaidó's most important patron, President Donald Trump, was never really behind him, it seems. In an interview on June 12th with Axios, a news website, he comes across as uninterested in his administration's decision to back Mr Guaidó. "I could have lived with it or without it," he said. Mr Maduro must have smiled.

Not everything is going his way. The production of oil, Venezuela's main source

of foreign income, has slumped to the lowest levels since the 1920s. Its price is low. By the end of this year, in real terms the economy is expected to be a fifth the size it was in 2013, when Mr Maduro became president. American economic sanctions are biting. There is less cash to buy loyalty from the armed forces, the final arbiter of the regime's fate. It will someday fall.

Venezuelans who yearn for change have little hope. "They have won," said a disillusioned teacher, who has been protesting against the regime since 2007. "I honestly believe this country is lost." ■

Brazil

Corner kicks and cutting corners

SÃO PAULO

A messy restart to the beautiful game

BEFORE COVID-19 hit Brazil, Santo André, a football club from the outskirts of São Paulo, was leading the state championship. It hoped to secure a spot in the national one next year. On March 16th, with two regular games left to play, the league shut down. Santo André's stadium became a field hospital. At least five players whose contracts expired during the hiatus left for other clubs.

In June its president, Sidney Riquetto, learned that other state clubs were flouting quarantines to practise secretly, sometimes without uniforms on municipal pitches. Mr Riquetto cried foul. In a scramble for the ball, "players in better shape will get there first," he complains.

Brazil, which has won the football World Cup five times (including 50 years ago this week), is eager to resume playing the game it thinks it plays better than anyone else. But kicking off during the covid-19 outbreak is proving tricky and contentious. Brazil has recorded 1.2m cases and 53,830 deaths, more than any other country except the United States.

Ninety-five players from the top league, nearly a sixth, have tested positive for the coronavirus. Nine are from Flamengo, 2019's national champions from Rio de Janeiro. They hosted Brazil's first mid-pandemic match on June 18th at Maracanã stadium (against Bangu, with no fans), metres away from a covid-19 field hospital.

In São Paulo, which still bans matches, clubs are getting antsy. "We have been very patient," says Thiago Scuro, the athletic director of Red Bull Bragantino, though not enough to abide by a league-wide pact not to train as long as clubs in some parts of the state are not allowed. (The club has now agreed to wait until July 1st, when the governor says practice can resume state-wide.)

Brazil's president, Jair Bolsonaro, a Flamengo fan, is keen for the sport to restart. Odds of a footballer dying from covid-19 are "infinitely small", he says. But football's bosses are trying to be more responsible. There is "no evidence" that athletes can't get ill, say guidelines for clubs published by Brazil's Football Federation. They recommend no spitting or handshakes. Less reassuring is the suggestion for clubs that do not have coronavirus tests on hand: ask a player to sniff coffee placed 5cm away from his nose. If he can smell it, he's probably not infected. Santo André plan to house players in rented training centres to keep them covid-free. If other clubs take such care, Mr Riquetto says, football will help restore a "sense of normality" to Brazil. It's a big if, he admits.



No need for coffee in that cup

Canada

When C-pop is not enough

VANCOUVER

The country is less popular than it thinks it is

ANY SERIOUS candidate for one of ten rotating seats on the UN Security Council will have to schmooze. Before the pandemic Canada entertained ambassadors to the UN with a concert in New York by Celine Dion, a French-Canadian singer. Ireland induced U2, a rock band from Dublin, to give its candidacy a plug from the stage. Lacking globally famous pop stars, Norway spent Nkr2m (\$210,000) on a travelling exhibition promoting its "contribution to African liberation".

They were competing for two seats on the UN's main decision-making body, which has five permanent members with vetoes, including the United States and China. On June 17th UN member states chose Norway and Ireland. Their two-year terms begin in January 2021. Canada, which has more people and a larger economy than both put together, fell 20 votes short of Ireland in the secret ballot.

This was humiliating for Justin Trudeau, Canada's Liberal prime minister, who had campaigned for a seat for four years. "Canada is back," he declared after taking office in 2015. "More like back of the line," foes in Parliament now retort. This is Canada's second recent Security Council loss. In 2010 the Conservative government of Stephen Harper was edged out by Portugal.

Canada has plenty of multilateral credentials. Lester Pearson, a future prime minister, won the Nobel peace prize in 1957 for initiating the first armed UN peacekeeping operation to resolve the Suez crisis. A successor, Paul Martin, was the architect of the G20 group of rich and emerging economies. Canada hosted the conference that in 1987 produced the Montreal protocol, which protects the ozone layer. In 2003 Kofi Annan, the UN secretary-general,

► called it “perhaps the single most successful international agreement to date”.

Yet a gap has emerged between how Canada sees itself and how the world sees it, observes Bessma Momani of the University of Waterloo. Canada has recently contributed less to UN peacekeeping missions and given less aid to developing countries than its European rivals. It had 34 active peacekeepers at the end of May; Ireland, with an eighth of its population, had 466. Canada’s development assistance last year amounted to 0.27% of gross national income, well short of the UN’s target for rich

countries of 0.7%. Norway gave more than 1%. Canadians’ perception of their country as a model global citizen may be coloured by “historical memory”, says Ms Momani.

Mr Trudeau was late to build relations with African leaders, who have more than 50 votes at the UN. His whirlwind tour of the continent in February, which included promises of aid and a stop at the headquarters of the African Union in Addis Ababa, smacked of opportunism.

More bad news followed the Security Council disappointment. On June 19th China announced that Michael Kovrig and Mi-

chael Spavor, Canadian citizens, have been charged with spying. China detained them in December 2018 after Canada, acting on an extradition request from the United States, arrested Meng Wanzhou, the chief financial officer of Huawei, a Chinese telecoms giant. The new memoir by John Bolton, President Donald Trump’s former national security adviser, confirms that Mr Trump dislikes the Canadian prime minister. Mr Trump called him a “behind-your-back guy”. Canada, to paraphrase the lyrics of an early hit for Ms Dion, is searching for a hand that it can hold. ■

Bello Lessons from history

The risk of regime change and a new authoritarianism

THE COVID-19 pandemic has still not peaked in Latin America, and it is likely to last for several more months. Apart from the toll in human lives, the virus and the efforts to fight it through lockdowns have hammered economies and forced tens of millions of Latin Americans into poverty. The IMF expects the economy of the region (including the Caribbean) to contract by 9.4% this year, with only a moderate recovery next. Harder to divine are the political implications of this hardship. But if history is a guide, they will be great.

Latin America has seen slumps on this scale only twice in the past century. The first was triggered by the Wall Street crash of 1929. By 1932, many of the region’s economies had shrunk by 20% (and 40% in the case of Chile and Cuba). Export earnings and investment collapsed. In most cases recovery came only in 1933. The second slump was in the 1980s, when a string of countries defaulted on their foreign debts after international interest rates soared. For Latin America as a whole, GDP per person shrank by almost a tenth between 1981 and 1983. Recovery was much slower than in the 1930s. The 1980s became known as the “lost decade”.

Both these periods saw political upheaval. Between 1930 and 1933 the armed forces pushed aside civilian governments and took power in eight Latin American countries. In Chile the reverse happened: a popular uprising overthrew the government of General Carlos Ibáñez in 1931. Over the next 18 months Chile suffered nine successive governments, two general strikes and several coups before settling down under civilian rule for the next 40 years. The 1980s saw the opposite trend. Dictatorships, which had prevailed in the region, yielded to elected

democratic governments in eight countries between 1982 and 1989.

Covid-19 struck Latin America as it was already suffering political strains because of several years of slow economic growth and popular discontent over corruption and poor public services. This discontent manifested itself in the defeat of incumbent parties in many recent elections, the rise to power of populist outsiders in Brazil and Mexico in 2018 and a wave of street protests last year, notably in Ecuador, Chile and Bolivia.

The immediate effect of the pandemic has been to strengthen presidents in several countries. The public has generally applauded rulers who have tried to save lives with lockdowns. And these lockdowns have made it harder for opponents to fight back, either in the streets or in hampered legislatures. When the pandemic ebbs but its economic consequences linger, anger is likely to resurface and may be directed at governments. “Rally-round-the-flag is a very short-term effect; in a couple of years people won’t connect the economic crisis with the virus,” says Dan-

ielo Campello, the co-author of a forthcoming book on the links between economic volatility and political instability in South America. “It’s hard to see any kind of [political] equilibrium or maintenance of the status quo.”

What political direction will popular anger take? One answer might be that it will breed more populism. That is possible, but it may not apply where populism is the status quo. And populists tend to have a hard time when money is short. Optimists think that the overriding lesson of covid-19 is that democratic governments, armed with science and openness, are doing a better job than populists, and that voters will reward them. That may be so in richer parts of the world. In Latin America opposition to incumbents, whether populists or democrats, is more likely to be the trend.

If the 1930s and the 1980s are any guide, the current slump may prompt regime change. After three mainly democratic decades, the risk is of a return to authoritarian rule. Already some presidents, such as Nayib Bukele in El Salvador and Jeanine Áñez, Bolivia’s interim ruler, have used the pandemic as a pretext to grab extra powers.

The biggest threat is that the army returns as a political actor, as it already has in Brazil under Jair Bolsonaro, Venezuela under Nicolás Maduro and to an extent in Mexico and Bolivia. That is partly because police may struggle to maintain public order in the face of popular anger. It is also because satisfaction with democracy and its institutions, already low in many countries, may fall further, and would-be authoritarians, civilian or military, may spy an opportunity. History need not repeat itself. Nevertheless, Latin America’s democrats will have their work cut out.





An election in Singapore

Thirteenth time lucky

SINGAPORE

The ruling party leaves even less to chance than usual

“THIS GENERAL election will be like no other that we have experienced,” Singapore’s prime minister, Lee Hsien Loong, declared this week, announcing that the city-state would go to the polls on July 10th. Procedures may be a little different from usual, given the continuing outbreak of covid-19. But the outcome will be just like the previous 12 national elections: the ruling People’s Action Party (PAP) will romp home with a huge majority of seats.

The PAP is a slick political machine which has held power since before independence in 1965. Its share of the popular vote has never dipped below 60%. Even at its lowest ebb, in 2011, the party retained 93% of the elected seats in Parliament. Last time around, in 2015, it won almost 70% of the popular vote, perhaps boosted by the death earlier that year of Lee Kuan Yew, Singapore’s first prime minister and the incumbent’s father.

The PAP’s popularity stems in large part from its competence. It has presided over decades of rapid economic growth, with little of the corruption that plagues neigh-

bouring countries. But the party is too thorough to leave its prospects up to voters. It has devised an electoral system that makes life difficult for its opponents. In most constituencies a party must field a slate of four or five candidates to compete, with the winning slate taking all the seats. The need in such seats to find multiple well-known candidates, pay for all the deposits (at almost \$10,000 a pop) and win over a much larger pool of voters puts a heavy burden on opposition parties. In fact, only one such constituency—Aljunied—is not in the PAP’s hands, having fallen to the Workers’ Party in 2011.

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The agencies that draw electoral districts and supervise the vote are not independent, but answer to the prime minister. Exacting rules govern everything from the size and placement of signs to a ban on negative campaigning. Candidates must not say anything “that may cause racial or religious tensions or affect social cohesion”.

The rules will be even tighter than normal this year because of the coronavirus. Rallies are banned, which is a blow to the opposition, which usually counts on big jamborees to fire up cautious voters. Instead, up to five members of a party can campaign together on “walkabouts”. Each member of the group must stay a metre away from the others and from the public, to limit potential contagion. The government will also help candidates to stream online pitches to voters. Campaigning on television and radio is strictly limited, but that did not prevent six ministers, including Mr Lee, from giving televised speeches earlier this month outlining the PAP’s vision—nothing to do with the election, just part of the fight against covid-19.

The biggest hindrance to the opposition, however, is the perpetual stifling of public debate. The constitution lists no fewer than eight different reasons why Parliament might limit freedom of speech, and it has made eager use of them. Since the previous election, the government has strengthened laws on harassment and contempt of court and dreamed up a new law to expunge online statements it deems false: ►

► the Protection from Online Falsehoods and Manipulation Act. A tightening of the Public Order Act requires organisers of public protests to apply for a permit at least 28 days before the event or face a fine of \$14,400 or up to a year in prison, or both. The overall effect—driven home by frequent investigations and prosecutions of opposition politicians for assaults on truth and the good name of the authorities—is to discourage criticism and participation in parties other than the PAP.

Nonetheless, the opposition has won over some notable recruits. Lee Hsien Yang, the prime minister's brother, has joined a new opposition outfit, the Progress Singapore Party (PSP), which was founded last year. Its leader, Tan Cheng Bock, formerly served as an MP for the PAP for 25 years but speaks now of a climate of fear in Singapore. The party wants to boost job creation, delay any rise in a nationwide goods-and-services tax for five years, and lower the voting age from 21 to 18.

The government's main vulnerability stems from its handling of covid-19 and the economic damage the epidemic will bring. At first Singapore was held up as a model in the battle against the disease. Then tens of thousands of cases began to emerge in dormitories for migrant workers. In total the country has seen more than 40,000 infections. In response, it imposed a "circuit breaker" from early April until mid-June during which most Singaporeans had to stay at home. Partly as a result, the government forecasts that the economy will shrink by 4-7% this year.

The PAP's "4G" cadres—its rising fourth generation of leaders—have been given leading roles in managing the pandemic. Their lacklustre champion, Heng Swee Keat, the finance minister, who is expected to take over from Mr Lee during the next parliamentary term, has devised several stimulus packages worth a total of \$72bn, almost 20% of GDP. More than half comes from Singapore's formidable reserves. "Our reserves allow us to deal with this crisis from a position of strength, and give us options in a period of uncertainty like this," he says.

It should all be enough to retain the support of anxious voters. In recent surveys, some 80% of respondents told Blackbox, a Singaporean pollster, that the country is heading in the right direction. The real test for the PAP will come after the election. A prolonged downturn will gnaw away at the basic compact between the PAP and its voters, who disregard its domineering and nannyish ways because of the economic growth and social stability it has provided. Meanwhile Mr Lee has said he will retire before his 70th birthday, early in 2022. Although Singaporeans seem likely to vote against change, they are bound to get it, sooner or later. ■

Crime and punishment in Kyrgyzstan

Jail to the chief

ALMATY

The authorities appear inconsistent in their concern about corruption

THE PRESIDENCY of Kyrgyzstan is not a job for the fainthearted. In the past 15 years two incumbents have been toppled by mass protests. Last year an ex-president, Almazbek Atambayev, was arrested amid a deadly clash between supporters and police. This week a court handed him an 11-year prison sentence on corruption charges that he says are politically driven.

The court ruled that Mr Atambayev had helped wangle the early release from prison of a mafia don, Aziz Batukayev, supposedly on compassionate grounds, using a fake diagnosis of leukaemia. Mr Batukayev

walked free and flew to Russia in 2013, but prosecutors started probing Mr Atambayev's role only after he began feuding with Sooronbay Jeyenbekov, a former protégé who had succeeded him as president in 2017.

Mr Jeyenbekov may have learnt a thing or two from his ex-mentor on neutralising rivals. When Mr Atambayev was president, his opponents had a habit of landing behind bars on corruption charges—a fate that has now befallen not only him, but also several allies. Sapar Isakov, an Atambayev-era prime minister, is serving 18 years in jail on graft charges.

Investigators have vigorously pursued the corruption charges against Mr Atambayev, but an equally momentous case, which brought protesters onto the streets when it hit the headlines last year, is moving glacially. It concerns a smuggling racket which allegedly enjoyed official protection, cost the government millions of dollars in forgone customs revenue and ►►

Espionage in Fiji

Pen and stink

WELLINGTON

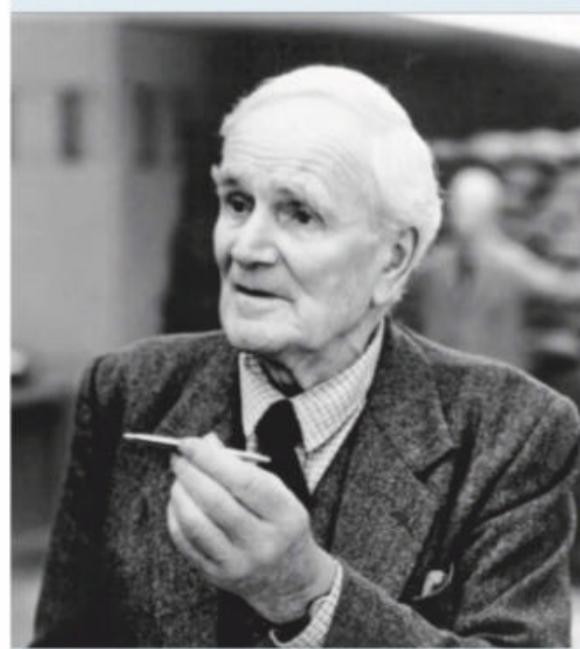
The curious case of the malfunctioning spy camera

"WE DON'T REALLY go in for that any more," says a British spook witheringly of gadgets disguised as pens in "Skyfall", a James Bond film. In Fiji, though, such devices have become a national fascination. A man called Ferrel Farizal Khan told the head of the Fiji Broadcasting Corporation, Riyaz Sayed-Khaiyum, that he was an undercover agent of sorts, running "Fiji Exposed", an anonymous blog which features stories about the extramarital affairs of prominent politicians and businessmen. Mr Khan also claimed that he was being paid by the two main opposition parties to

publish anti-government stories and to hack into the national elections database to seek evidence of government ballot-rigging. So Mr Sayed-Khaiyum, who is the brother of the omnipresent attorney-general, Aiyaz Sayed-Khaiyum, equipped him with a camera disguised as a pen to record opposition figures misbehaving.

Mr Khan returned empty-handed, saying that the spy-pen had failed to work. By then, Mr Sayed-Khaiyum was becoming suspicious of the supposed double-agent, whom he reported to the police. They are duly investigating Mr Khan. But they also took his allegations seriously enough to raid the offices of the National Federation Party, one of the two opposition outfits, hunting for evidence of links to "Fiji Exposed"—to no avail.

Mr Khan, meanwhile, claims to have recorded his conversations with Mr Sayed-Khaiyum, not on a spy-pen but on a mobile phone. "You prepare well," he advised his denouncer, "as I now have nothing to lose." Mr Sayed-Khaiyum, for his part, has held a press conference to "set the record straight". He says he was never convinced by Mr Khan and threatened to sue the opposition parties for mocking him. He clearly does not have the political acumen of his brother, who is sometimes known as A2Z because he is thought to oversee everything the government does. Whether that includes his brother's work is unclear.



Mr Khan's didn't work

▶ saw almost \$1bn spirited out of the country. In mid-June a parliamentary commission, set up to investigate a murder at the centre of the scandal, finally released its findings. It concluded that the money involved was the proceeds of business dealings in neighbouring Uzbekistan and so was “not related to Kyrgyzstan”. There has been only one arrest of note in connection with the scandal.

However, investigators recently revealed that they are pursuing a novel line of inquiry: that the since-assassinated source for the exposé that brought the scandal to light had in fact bribed a reporter to publish claims of a massive customs swindle. That, retorted the outlet in question, Radio Free Europe, an American-funded broadcaster and website, was but the latest manoeuvre in a “campaign of retaliation” against corruption-busting journalists. Reporters have also been hounded by libel lawsuits and death threats. The culprits, says Radio Free Europe, are “corrupt individuals seeking to protect their wealth and power”. ■

Ageing in Japan

Ready, cane, fire

TOKYO

Japan's army is greying. It may have to draft more robots

BRITISH YOUNG faces gaze out from a recruitment poster on the thick grey walls of the Defence Ministry in central Tokyo. But in greying Japan, finding enough youngsters to fill the ranks has become, by the ministry's own admission, “an imminent challenge”. The number of Japanese between 18 and 26 years old, long the prime recruiting pool, peaked at 17m in 1994. It has since fallen to 11m. By 2050 it will sink below 8m. “Young blood is what all militaries need, and it's exactly what we're lacking,” says Yamaguchi Noboru, a retired lieutenant-general in the Self-Defence Forces (SDF), as the country calls its army, in deference to its pacifist constitution.

The SDF has missed its recruiting targets every year since 2014, reaching just 72% of its goal in 2018. It fields only 227,000 of the 247,000 troops it budgets for, a shortfall of 8%. Among the lowest ranks, the gap is over 25%. Low pay, harsh conditions and the limited prestige of soldiering in a peacenik nation with little unemployment always made recruiting hard, but demography compounds the difficulties. The inverted population pyramid ought to worry Japan as much as Chinese expansionism or North Korean missiles, argues Robert Elbridge, an American former military official and the author of a book in Japanese on demography and the armed forces: “Demo-

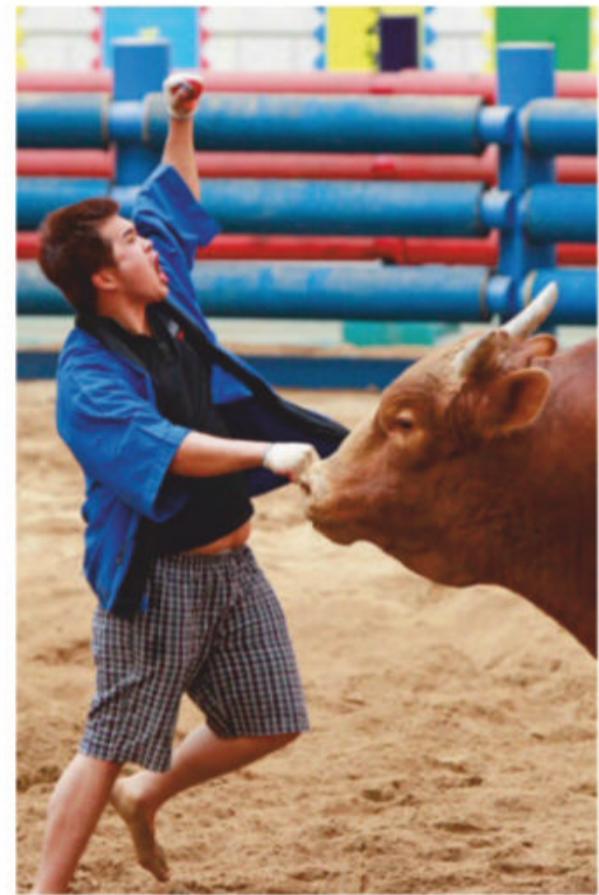
graphic change is not just an economic issue, it's a national-defence issue.”

The army is using many of the same strategies as private companies to cope with an ageing workforce. “Just like the rest of Japan, the SDF is trying to see what AI and robotics can do for them,” says Sheila Smith of the Council on Foreign Relations, an American think-tank. The government has announced plans to acquire and develop new unmanned aircraft and submarines. While these will be for surveillance, “the next step is strike capability”, says Nagashima Akihisa, a government MP and former deputy defence minister.

But persuading politicians to fund the development and deployment of offensive weapons is hard in a country whose constitution states, “The Japanese people forever renounce war.” Nor is technology a panacea for personnel shortfalls, notes Koda Yoji, a retired vice-admiral. Drones and robots require operators and skilled engineers—the sort of people the SDF already has trouble attracting. A cyberdefence unit set up in 2014 has only 220 members.

An alternative is to expand the pool of potential personnel. Female troops used to be confined to non-combat roles such as nursing and administration, but in recent years the high command has allowed them to fly fighter jets and drive tanks, among other things; soon they will be allowed to sail on submarines. At the defence ministry, officers speak of “work-life balance” and stress family-friendly perks such as an on-site day-care centre. Yet progress has been slow: women made up just 7% of Japan's armed forces in 2018, compared with an average of 11% among NATO countries. And the government's goals are modest: to increase the share to 9% by 2030. The National Defence Academy caps the number of women it admits at 15%. Sexist attitudes about roles in the army still prevail, says Sato Fumika of Hitotsubashi University. In the SDF's recruiting pamphlets, the pages that focus on women are printed on pink backgrounds.

Another way to keep up the numbers is simply to tolerate older soldiers. In 2018 the SDF raised the maximum age for new recruits from 26 to 32, the first increase since 1990. This year the retirement age for senior officers will start rising gradually. Older soldiers can focus on maintenance, logistics and training, thus freeing younger troops to concentrate on more muscular missions. Experienced soldiers may even bring advantages in “new domains and new frontiers” of warfare, where physical prowess matters less, says Colonel Kagoshima Hiroshi, who works in recruitment. Those past retirement age are encouraged to continue working for reduced pay. As Nagaiwa Toshimichi, a retired lieutenant-general, laughs, “I'm 71 years old, but I'm ready to fight.” He is only half-joking. ■



Bullfighting in South Korea

Locking horns

JINJU

An old form of entertainment is threatened by the pandemic

TO WORK OUT if a male calf will make a good fighting bull, you have to study its face. A promising one will have a glint in its eye, a hint of the courage and resolve needed to face down another bull in the ring. “It's difficult to define, but you can just tell if they have that spirit,” says Lee Eul-boo, who heads the bullfighting association in Jinju, a city in the far south of South Korea. Mr Lee should know: besides breeding the animals for other trainers, he keeps ten fighting bulls of his own.

In South Korea bulls are pitted against one another in the ring rather than against human opponents, so the animal's appetite for confrontation is essential to the drama. If both bulls are in the mood, they will lock horns and wrestle until one retreats. Frequently, however, an intimidated bull will slink away without a fight.

Despite the risk of such an anticlimax, bull-on-bull fights have been popular entertainment in South Korean villages for hundreds of years. The practice declined as people moved from the countryside to the city, but in recent years it has enjoyed a revival as a tourist attraction. Jinju, which claims to have conducted bullfights for centuries, built a new stadium for them 15 years ago. Other towns encourage visitors to bet on the outcome of fights. In a normal year, says Mr Lee, he would spend most

▶ weekends in summer on the road, taking his bulls to competitions.

The covid-19 pandemic has put a stop to that. Excitable crowds in stadiums present too much of an infection risk, whether they are watching baseball or bullfights. At present, fans are stuck with video reruns of past fights. Mr Lee pulls one up on the association's office computer. Damduck, one of his bulls, headbutts his opponent into submission in a few seconds. "He has won countless fights—he's a very good fighter," Mr Lee says proudly.

It is unclear when Damduck will next be

able to fight. Jinju's bullfighting stadium is in dire need of refurbishment. The local government has in principle decided to put up the cash, but has not set a date for work to begin. The pandemic will probably not accelerate things. What is more, some members of the local assembly have begun to ask whether the fights are cruel, much to the dismay of Mr Lee. "We would do anything for our bulls, we don't abuse them," he says. Critics attack not just the fights themselves, which occasionally result in injuries to the bulls, but also the training regimen, which is rumoured to involve

forcing bulls to drag car tyres uphill and feeding them *soju*, a local spirit. (Mr Lee says his bulls eat only nutritious home-made porridge.)

Huh Jeong-lim of the local culture committee says no decision has been reached on how to resolve the conflict between animal-rights activists and bull owners. "It will be a long-term discussion," she says. Mr Lee, for his part, hopes the fights will pick up again once the pandemic is at bay. "It puts you on the edge of your seat watching them butt heads," he says. "It's just a fight—everybody loves a fight." ■

Banyan Sudden onsen

The supposed new era in relations between Japan and China is already fading

BACK IN FEBRUARY, when covid-19 was raging in China, a young girl in Japan took Chinese social media by storm. Dressed in a traditional Chinese *cheongsam*, she stood on the streets of her hometown bowing to passers-by to solicit donations for the afflicted. Calligraphers, too, knelt in Tokyo, inkbrush in hand, writing prayers for the people of Wuhan. Consignments of face masks made their way from Japan to China with poems on the box: "Though separated by mountains and waters, we look at the same sky."

To any scholar of East Asia's classical history, such acts have context. Japan and China share an extraordinarily long interaction. The Japanese language had no written form until Chinese characters were imported over 1,500 years ago. Kyoto, Japan's cultural heart, was laid out in emulation of the Tang dynasty capital of Chang'an (modern-day Xi'an). Japanese monks and scholars helped bring from China three religions that played a big part in shaping Japanese culture: Confucianism, Taoism and Buddhism.

Yet to a student of the two countries' more recent relations, the Japanese gestures of sympathy amid the outbreak and their warm reception in China might be surprising. Anti-Japanese riots broke out in China only eight years ago, as a bellicose leadership issued threats over Japan's Senkaku islands, which China claims. Then, in 2015, China belaboured Japan's wartime guilt, to mark the 70th anniversary of the end of the second world war. President Xi Jinping snubbed Japan's prime minister, Abe Shinzo, after coming to power in 2012. Mr Abe, for his part, saw China as an existential threat, eating Japan's lunch in economic terms and challenging its security.

If anything changed, it was the elec-

tion of Donald Trump as America's president. His mercurial approach unsettled not only China, which got lambasted over trade and more, but also Japan: Mr Trump's disdain for alliances undermined the basis of its security. As an adviser to Mr Abe put it at the time, China and Japan both recognised they could not fight a war on two fronts—the Trump front was quite enough. A rapprochement was inevitable. Besides, China wanted Japanese investment, while Japan's hopes for an economic revival included more tourists from China.

Last year nearly 10m Chinese flocked to Ginza's swanky shops and to the snows and *onsen* (hot springs) of Hokkaido. A modern pilgrimage route leads young Chinese to the locations that feature in their favourite *anime* films. Admittedly, Japanese hold their noses at breaches of etiquette—not least, flatulence in the *onsen*. But Chinese views of Japan have been transformed. An opinion poll in September by the Genron NPO, a Japanese think-tank, found 46% of Chinese had a favourable opinion of Japan. That is up from 5% in 2013.



Mr Xi defined it as a "new era" in relations. He was to have come on a state visit in April (the first by a Chinese leader since 2008), to be greeted by the new emperor, Naruhito. Partly to ensure it went well, the Japanese government was still welcoming Chinese tourists in late January, even as the virus raged in Wuhan. That seeded an outbreak on Hokkaido, hastening the spread of covid-19 throughout Japan. When the pandemic forced Mr Xi's visit to be postponed, Mr Abe's advisers breathed a sigh of relief. The prime minister was getting flak from his right wing for hosting a dictator.

The new era has since been losing its shine. Since April Chinese coastguard vessels have sharply increased operations around the Senkakus, with near-daily visits. And now Hong Kong has become a thorn in the relationship. In its strongest language against Japan in years, China lashed out at criticism of its plan to impose a draconian security law in the territory (see China section), even though Mr Abe had walked a delicate line by declining to join Australia, Britain, Canada and the United States in an admonitory joint statement.



Some 1,400 Japanese companies and 26,000 Japanese make Hong Kong their home. But Japan's greater concern is what China might do to Taiwan, its democratic neighbour and friend. It all means, for Mr Abe, that domestic political constraints will grow, too. Already, ordinary folk increasingly fault China for Japan's epidemic. And, crucially, they remain suspicious of China's intentions. The same Genron NPO poll found that the proportion of Japanese with an unfavourable opinion of China had remained at 85%. Bet on Mr Xi's state visit never happening. Don't count on the new era lasting either.



Human rights in Xinjiang

Walk on by

NEW YORK

Donald Trump is not the only foreign leader who fails to stand up for the Uighurs

IT WAS A rare spark of hope for China's Uighur ethnic group, which forms nearly half the population of the far western region of Xinjiang. On June 17th President Donald Trump signed the Uighur Human Rights Policy Act. It aims to punish Chinese officials for human-rights abuses in Xinjiang, where since 2017 perhaps 1m people, including about one in ten Uighurs, have been thrown—without trial—into a new gulag. They have been selected for this “training” because of habits such as praying too often to Allah, showing too much enthusiasm for their Turkic culture or refusing to watch state television.

Just before Mr Trump took up his pen came a sharp sting. John Bolton, a former national security adviser, said that Mr Trump had assured China's president, Xi Jinping, that building the prison camps was “exactly the right thing to do”. Whether Mr Trump spoke out of callousness or ignorance is unclear. Mr Xi may well have told him that the camps were necessary for curbing terrorism, and that the internees had all shown dangerous tendencies. This is China's official line. Mr Trump should have seen through it, but he does not al-

ways read his briefing papers.

Still, the Uighurs' supporters cheered Mr Trump's signing of the bill—they take help where they can get it. The act has few teeth. America already had a law allowing the president to impose sanctions, such as the freezing of assets or the denial of visas, on foreign officials who violate human rights. This one goes further only by naming a couple: Chen Quanguo, the Communist Party chief of Xinjiang, and his former deputy, Zhu Hailun. (On June 19th Mr Trump, in an interview with Axios, a news website, said he had not imposed such sanctions already because he did not want to jeopardise trade talks with China.) The Trump administration had already blacklisted several dozen companies deemed complicit in the atrocities, including by providing surveillance technology. The new law does not mandate much more, except by requiring the American government to report on how the Uighurs are repressed and who is doing it.

Several countries have castigated China for the largest arbitrary roundup of a minority anywhere since the second world war, but few have done much about it. Chi-

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na says it gives the inmates vocational training. But they are also forced to criticise Islam, shave off their beards, eat pork, speak Mandarin instead of their own Turkic tongues and praise Mr Xi. They are not told when they will be released.

In October the European Parliament showed a bit of backbone by awarding the Sakharov Prize for Freedom of Thought to Ilham Tohti, a Uighur academic who was jailed for life in 2014 on a charge of separatism. But firms and sports leagues doing business in China have mostly ignored pleas by activists that they denounce Xinjiang's horrors. Sweden has declared that any Uighur applying for asylum can be assumed to have suffered persecution. But some countries, such as Cambodia, Egypt and Thailand, have sent Uighur refugees back to China—and certain punishment.

China's economic power has helped it avoid censure. On October 29th European governments and the Trump administration signed a letter at the UN publicly condemning China. In response China recruited about 50 other countries, including many with majority-Muslim populations, to endorse the official story that the camps are part of a counter-terrorism strategy that has made Xinjiang safer. The pandemic may have helped China, too, by diverting everyone's attention.

Oddly, China has recorded fewer than 100 cases of covid-19 among Xinjiang's nearly 22m people. The official numbers may not be accurate, but it is possible that Uighurs have been so effectively walled off from the rest of the world that they have ►

barely been exposed to the virus.

Just before and at the outset of the pandemic, three reports—by the Centre for Strategic and International Studies in Washington, the Australian Strategic Policy Institute (ASPI) in Canberra, and Adrian Zenz, a German scholar—detailed official schemes to send many of the Uighurs in the camps to perform forced labour in factories in Xinjiang and across China. ASPI's gave what it said was a conservative estimate that, between 2017 and 2019, at least 80,000 Uighurs had been sent to do such work outside Xinjiang. The factories are given bounties by the government for each worker taken. Many of the Uighurs endure miserable conditions: ethnically segregated dormitories in compounds with watchtowers, indoctrination sessions and salaries that are often far below the minimum wage (if they get paid anything at all).

The three reports have made some foreign companies wake up. Dozens of them have examined their supply chains for evidence of forced labour (or at least, they have said they are doing so). ASPI's report named 83 firms as possibly being complicit in using such labour, but a number of them have disputed this. Adidas said a factory cited in the report, which displayed the Adidas logo on-site, was not one of its suppliers. Nike, also named in the report, issued a statement disavowing forced labour while suggesting that conditions at the factories named may not have been as coercive as reported.

American groups representing apparel and tech firms say they are trying to do more, but have limited leverage in their dealings with China's government. However, they appear reluctant to use whatever clout they have, or even to say publicly what specific action they are taking. Xinjiang grows more than 80% of China's cotton, and about 20% of the world's. China is also a manufacturing hub and large market for most of the world's biggest consumer brands. Companies are terrified to cross China's ruling party in public. Corporate lobbyists argue that firms need America and the European Union to work with them to push it to change its behaviour.

With Mr Trump reluctant to impose sanctions, hawks in Congress have taken the lead. In March Marco Rubio, a Republican senator from Florida, introduced the Uighur Forced Labour Protection Act. This bill would establish a “rebuttable presumption” that any goods from Xinjiang are made with forced labour, and thus may

not be imported. It would also require companies publicly listed in America to disclose any links to forced labour in Xinjiang or other atrocities there. America's customs authorities can already block imports of products made with forced labour, but they have limited resources to help them investigate whether a shipment merits seizure on such grounds.

However, the pandemic has dramatically slowed the work of Congress. Any recently introduced bill that is not related to essential government business has almost no chance of being adopted this year. And there is little hope that leaders in Europe will do much, either. Jewher Ilham, the daughter of Mr Tohti, the jailed academic, says a high-ranking European official suggested to her that, concerning Uighurs, Europe would rather deal with China “under the table” than in public.

Many activists doubt whether such qui-

et diplomacy will work. Some would prefer a boycott similar to the campaign against apartheid in South Africa in the 1980s. It would name and shame companies that benefit from forced labour and call on sovereign-wealth funds, pension funds and the like to divest from any firms linked to abuses in Xinjiang.

But rallying public, let alone government, enthusiasm for this would be difficult, and such a movement probably would not change China's behaviour. China is the world's second-largest economy; South Africa ranked 26th in 1985. For consumers, goods wholly or partly made in China are all-but-impossible to avoid. One Uighur activist says Mr Trump's reported remarks about the camps being a good thing could have useful shock-value, by drawing attention to the plight of Uighurs. Such is the tragic state of their cause that even bad news is better than no news at all. ■

Civil liberties in Hong Kong

Sight unseen

HONG KONG

China has outlined its new national-security law for Hong Kong. It looks alarming

HONG KONGERS have fretted for years about when and how national-security law might be applied in the territory. They will soon find out. In May China announced it would enact a bill for Hong Kong concerning crimes such as subversion and secession, without referring to the city's legislature. Lawmakers in Beijing are now drafting the act in hugger-mugger. On June 20th they released an outline. Worrying seems right.

Already Hong Kong is plastered with billboards hailing the new law, even though senior officials in the city have yet to see the bill. It is possible that it will not be made public before the law is promulgated. China may want to enact it by July 1st, the anniversary of Hong Kong's handover to China in 1997. That is traditionally an occasion for protests.

The point of the new law is clearly to deter the kind of unrest that has roiled Hong Kong since last year.

The official description of it stresses that the bill will comply with “important principles of the rule of law” and international human-rights legislation. But it will take precedence should a conflict arise between the new law and existing ones. The legislature in Beijing will be able to overrule any verdict. There may be little need for that: Hong Kong's government will decide which judges can handle national-security cases.

Hong Kong's police will investigate such crimes. But, in a “tiny” number of important cases, central-government agencies will be allowed to step in. Hong Kong's chief executive will head a new national-security commission, with one seat reserved for a central-government “adviser”. A new body will be set up in Hong Kong for mainland spooks to “collect and analyse national-security intelligence”. That is likely to mean they will name targets, even if arrests will be made by a new branch of the local police that will focus on national security.

A senior adviser in Hong Kong to the central government, Lau Siu-kai, says the aim is to “kill a few chickens to frighten the monkeys”—to deter people with a few high-profile sentencing rather than carry out sweeping arrests. That is just how the party likes to crush dissent on the mainland. One country, one system creeps ever closer.



Correction: In “China's next move in the South China Sea” (June 20th) we said that Japan had extended its Air Defence Identification Zone (ADIZ) to cover a Japanese-held island claimed by Taiwan, which Taiwan had included in its own ADIZ. In fact the island, Yonaguni, is not claimed by Taiwan and Taiwan's ADIZ had included only part of Yonaguni's airspace. Sorry.

Chaguan | A campaign with costs

Corruption is bad, but in the past it emboldened some Chinese officials to take useful risks



IN CHINESE, AN official sacked for corruption is said to have “fallen off a horse”. The phrase rings with the age-old satisfaction of watching the high and mighty plunge face-first into mud.

Eight years after its launch by President Xi Jinping, the largest anti-corruption campaign in Chinese history remains wildly popular, notably because it has unhoisted not just light-fingered Communist Party chiefs in villages, but big-city mayors and members of the Politburo. More than 1.5m individuals have been disciplined for graft since 2012, including both “tigers and flies”—a phrase favoured by Mr Xi who took power that year. Still, a puzzle lurks within that mood of public glee at seeing the haughty-but-dirty brought low. The puzzle is identified in a thought-provoking new book, “China’s Gilded Age: The Paradox of Economic Boom and Vast Corruption”, by Yuen Yuen Ang of the University of Michigan.

To Chinese rulers, the cupidity of the country’s 50m party functionaries, civil servants and local officials is a political crisis. Shortly after becoming party leader, Mr Xi declared that corruption was “utterly destructive politically, shocking people to the core”. As Ms Ang notes, the consensus among development agencies and scholars is that corruption hurts economic growth. Yet it is not hard to find ordinary Chinese who miss some big tigers brought down for graft. Exploring that puzzle, Ms Ang lists the achievements of Bo Xilai, the charismatic son of a revolutionary pioneer. As party secretary of Chongqing, Mr Bo transformed that giant inland city with foreign investments and a debt-fuelled construction boom, before being purged and jailed in 2012.

Mr Bo is accused of taking gifts ranging from a villa in France to the fees for his son’s education at Harrow, a British boarding school. But Chongqing also remembers him for new roads, airports, parks, hospitals and housing for hard-up residents. The book describes other swashbuckling, risk-taking leaders who were toppled for corruption but are still remembered fondly. One such is Ji Jianye, who transformed several cities in the eastern province of Jiangsu, earning the mostly admiring nickname “Mayor Bulldozer”. To Ms Ang, their careers reveal something important about Chinese corruption, and how it manages to be both rampant and co-existent with 40 years of rapid economic expansion.

Arguing that conventional measures of corruption are too

crude, Ms Ang “unbundles” graft into four varieties. First there is petty theft. Perhaps involving a traffic policeman demanding and pocketing a fine, such corruption poisons economies. Then there is grand theft, eg, a dictator looting the central bank. That is also toxic to economies. Third is speed money, as when a shopkeeper pays a bribe for a permit that might otherwise never arrive. Ms Ang compares this to a painkiller that eases the agony of bad governance but cures nothing. Then comes the variety that most worries Mr Xi: access money, or high-level bribes and favours offered to powerful officials and their families, in return for contracts or other privileges. Ms Ang compares this sort of corruption to steroids. Access money can promote private investment and economic growth. That helps explain the popularity of some bent officials.

The book is not a defence of corruption. Like steroids, access money promotes unbalanced growth, it notes. Often such graft directs funds towards property deals, a swift route to riches for officials in China, where land use is state-controlled. China is especially prone to this fourth category, though petty corruption has declined over the past 20 years, thanks to dull but important things like hard-to-cheat government book-keeping. The Global Corruption Barometer, a survey by Transparency International, found that 26% of Chinese had paid a bribe to use public services in 2017, well below levels found in Vietnam or Cambodia.

Ms Ang compares China’s early phase of economic opening to America’s Gilded Age, when 19th-century robber barons suborned politicians to let them build railways, private monopolies and commercial empires. Public anger prompted the transparency drives and social reforms of the 20th-century Progressive Era.

Relying on the bums to throw themselves out

Admirers of Mr Xi may call his anti-corruption campaign a new Progressive Era. Ms Ang is not so sure. For one thing, China lacks the muckraking journalists and throw-the-bums-out elections that helped America reform. In contrast, its purge is secretive and top-down. Studying 54 city-level party secretaries felled for corruption, Ms Ang finds a correlation with the sacking of a mentor above them in provincial patronage networks. Worse, Mr Xi has been “simultaneously straitjacketing the bureaucracy and clamping down on social and political freedoms”, squeezing entrepreneurial impulses in business and civil society.

Ms Ang is convincing about the economic risks of Mr Xi’s drive for conformity. But the party’s focus on politics is also rational, says Feng Chucheng, a political-risk analyst at Plenum, an independent research company. He notes that historically lots of bribes were paid by one official to another to secure a promotion, rather than by entrepreneurs to enable economic development. Other abuses of power involved no cash at all: helping a relative jump the queue for housing or a rationed car licence plate, for instance. Indeed the public is arguably more angered by social inequalities than by embezzled money. Mr Feng cites a singer, Tong Zhuo, who casually boasted during a broadcast in May that rules were bent to secure his place at a famous drama school. Viewers erupted. To date, 21 officials in two provinces have been punished, including Mr Tong’s stepfather, a mid-ranking party functionary.

One effect of the purge has both economic and political consequences. Officials at all levels of government are more risk-averse and reluctant to innovate, says Mr Feng. Ms Ang describes outright paralysis among decision-makers. She adds that corruption’s true root cause is the state’s enormous power over the economy. That, alas, is a horse that the party is unwilling to dismount. ■



Israel and the Palestinians

Into darkness

BEIRUT AND JERUSALEM

Talk of annexation in Israel shows how badly the peace process has failed

FAR FROM being a show of strength, it smacked of desperation. On June 22nd thousands of Palestinians held a protest in Jericho against a possible Israeli annexation of parts of the occupied West Bank. They were joined, unusually, by diplomats from across the globe: Britain and Russia, Jordan and Japan. The United Nations envoy, Nickolay Mladenov, made a speech. After months of public warnings and quiet pressure, the world's collective diplomatic clout perched on plastic chairs beneath the beating summer sun.

On July 1st Israel's cabinet can start to discuss annexation. The date is less a deadline than a starting-point laid down in the coalition agreement signed in April by Benjamin Netanyahu, the prime minister, and his governing partners. Israel could decide to annex a large swathe of territory or annex nothing at all, or—as seems likely—do something betwixt the two.

If it does anything, it will happen over widespread objections. Some of Mr Netanyahu's partners are hesitant. The public, although split on the wisdom of annexation, mostly thinks it a distraction from the co-

vid-19 pandemic and a likely recession. Democrats in America oppose the move. So do many European allies. Friendly Arab states warn that it would threaten ties with Israel. Even some Israeli settlers are opposed (albeit for different reasons). And then there are the Palestinians themselves, once again bystanders in their own drama.

It is quicker to list those in favour: some of Mr Netanyahu's right-wing allies, some Israeli hawks, a few members of Donald Trump's administration. Yet this narrow band of supporters have pushed annexation from the fringe of Israeli politics into the realm of possibility.

What Mr Netanyahu does matters less than the fact that he might do it. The Oslo Accords, signed in 1993, were to usher in a

short transitional period on the way to a Palestinian state. Almost 30 years later the world is scrambling not to clinch a two-state solution but to preserve a status quo that should have ended in 1999—the terminus of a peace process that has become more about process than peace.

Israel has already annexed East Jerusalem and the Golan Heights, two other territories captured in 1967—but not the West Bank, home to 3m Palestinians who see it as the heart of their future state, and 430,000 Israeli settlers. (Another 230,000 settlers live in East Jerusalem.) The West Bank's status has long been regarded as a question for a final peace agreement between Israel and the Palestinians.

Like his predecessors, Mr Trump took a stab at drafting one. His “Peace to Prosperity” plan, released in January, envisions a Palestinian state—should the Palestinians meet a list of onerous conditions—in Gaza and on 70% of the West Bank (see map on next page). It allows Israel to annex the remaining 30%, which consists of settlements and the Jordan Valley.

The Palestinians rejected the plan. Mr Netanyahu endorsed it and immediately tried to annex the land earmarked for Israel. But the Americans asked him to wait, in part because Mr Netanyahu was at the time fighting for his political survival. Three elections in the span of a year had failed to produce a government until he made a deal with his exhausted rival, Benny Gantz.

As July 1st draws near, though, Mr Netanyahu's plans remain fuzzy. Israel could ➤

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► annex the full 30% or something smaller, perhaps one or two settlement blocs (such as Maale Adumim, pictured on the previous page). Another option is to annex scattered settlements deep within the West Bank to establish “facts on the ground”. Some in Israel’s security establishment think Mr Netanyahu will do less still: play for time and form a committee to prepare for annexation. On June 3rd security officials held a war game to plan for possible violence on the Palestinian side. They were in the dark about their own government’s intentions. “Annexation? What annexation?” asks an Israeli diplomat.

Like his nine predecessors since 1967, Mr Netanyahu has made no serious moves towards annexation beyond East Jerusalem. It became an issue only on the eve of the election in April last year, when he promised to annex settlements close to the pre-1967 border. Many saw this as a gimmick. Five months later, as another election loomed, he unveiled a proposal to annex the Jordan Valley. Then, five weeks before the last vote, came the Trump plan.

Some who have spoken with Mr Netanyahu believe he wants to be the leader who redrew Israel’s borders. Others still think this a ploy to distract from his ongoing corruption trial and the pandemic. “He needs annexation as a diversion so Israelis won’t speak about the economy,” says Yair Lapid, the opposition leader. “Instead he’s got everyone running around like headless chickens talking about annexation.”

He has met surprisingly fierce opposition from some settlers, for whom any mention of a Palestinian state is anathema. Mr Netanyahu has told them not to fret: the Palestinians will never accept the Trump plan. They are not convinced. “There isn’t a partner on the Palestinian side now,” says Yigal Dilmoni, head of the Yesha Council, a settler lobby. “But who’s to say in the future there won’t be such leadership? They will be able to say that Israel already agreed to them having a state on 70% of the land.”

Few have asked what the Palestinians prefer. “It’s like they’re inviting people to a wedding where the bride doesn’t show up,” says Zahi Khouri, a businessman in Ramallah. There is near-unanimous opposition to annexation, of course, but also a sense of resignation. Palestinians have watched Israeli settlements expand for decades. Hopes for a negotiated peace have faded; their leadership seems powerless to do anything. Over half of Palestinians in the West Bank say they would back a return to “armed struggle” if Israel annexes territory.

About two in five would like to dissolve the Palestinian Authority (PA), their limited self-government, and force Israel to take responsibility for the occupied territories. Unpopular to start with, the PA risks losing its raison d’être: if Israel annexes a large chunk of territory, the PA can no longer

claim to be the government of a state-in-waiting. But the PA’s president, Mahmoud Abbas, and the old men around him are loth to take any drastic steps. Even their recent decision to suspend security co-ordination with Israel was largely for show. It has discreetly continued.

If the leadership is static, though, the public is not. A growing share of Palestinians have lost faith in the two-state solution. A poll from February put support at just 39%, the lowest level in a generation. Annexation won’t help. Amos Gilad, a retired general who once led Israeli policy in the territories, says it would cause the Palestinians to “demand rights as citizens in Israel”. Mr Netanyahu has heard similar warnings from his security chiefs. But he believes the Palestinians will capitulate and accept a series of isolated statelets.

That is what Mr Trump offered. But his administration is divided on whether to back unilateral annexation. His ambassador in Jerusalem, David Friedman, used to run a charity that raised millions of dollars for settlements. He wants Israel to move ahead now, in case his boss loses the election in November. Jared Kushner, the president’s son-in-law and the author of his plan, is less enthusiastic. He has no ideological objections but worries annexation will scupper his chance to play peacemaker. Mike Pompeo, the secretary of state, says it is up to Israel.

Outside the administration, annexation carries risks. Bipartisan support for Israel in America has been ebbing for years: Mr Netanyahu’s testy relations with Barack Obama and embrace of Mr Trump hurt his



standing with Democrats. Annexation would erode it further. Joe Biden, the Democratic presidential nominee, opposes the move. For now, though, the party has ruled out cutting America’s \$4bn in annual military aid to Israel. Warnings from European leaders are also probably just that. Still, none of this is good for Israel.

Egypt, one of two Arab states that has official relations with Israel, has been conspicuously silent. It is busy with other crises, from covid-19 to the war in Libya. Jordan has been louder. King Abdullah worries annexation will trigger unrest among his large Palestinian population and revive talk of “the Jordan option”, which imagines his country as the future Palestinian state. But he has little leverage over Israel; few expect he would go so far as to rip up their peace treaty.

Mr Netanyahu has made much of Israel’s growing ties with Gulf states. None officially recognises Israel. But their armies and spy services swap intelligence and there are discreet economic ties as well. On June 12th Yousef al-Otaiba, the ambassador of the United Arab Emirates (UAE) in Washington, warned on the pages of an Israeli newspaper that annexation would put all this at risk. “We would like to believe Israel is an opportunity, not an enemy,” he wrote. “Israel’s decision on annexation will be an unmistakable signal of whether it sees things the same way.”

Annexation may limit the Gulf states’ friendship with Israel. But their common interests, namely their antipathy towards Iran and political Islam, will endure regardless. Anwar Gargash, the UAE’s minister of state for foreign affairs, has admitted as much. “Can I have a political disagreement with Israel but at the same time try and bridge other areas of the relationship? I think I can,” he said on June 16th.

Perhaps the most telling bit of Mr Otaiba’s opinion piece was not its text but its headline: “Annexation or Normalisation”. For decades Arab states said Israel would enjoy friendly relations only if it granted the Palestinians a state. The choice was occupation or normalisation. But Mr Otaiba made almost no mention of Palestinian independence. In his framing, Israel must only preserve the status quo. Some on the Israeli right count that as a victory. “They used to criticise us over the status quo,” says Gideon Sa’ar, a lawmaker from Mr Netanyahu’s Likud party. “Now they are criticising us for changing the status quo.”

Still, there is little to celebrate. The prospects of renewed talks between Israel and the Palestinians are dim. Israel’s leaders are too hawkish and nationalist, Palestine’s too divided and illegitimate. Mr Trump’s plan was dead on arrival. After three decades of failure, the bar is low indeed: the world wants only to sustain a situation it has long called unsustainable. ■



Judging elections

Tough justices

NAIROBI

Some judiciaries are becoming bolder, but authoritarian rulers are fighting back

MALAWI'S CHIEF JUSTICE, Andrew Nyirenda, is an industrious chap. Since donning the wig 26 years ago he has racked up 572 days of untaken leave, or so says the office of Peter Mutharika, Malawi's president. Last week it ordered Mr Nyirenda (above left) to go on holiday immediately. Since the chief justice would reach retirement age before the end of his break, it also said he should step down forthwith.

Mr Nyirenda presides over Malawi's Supreme Court, which in May upheld a ruling annulling the president's re-election last year after a lower court found correction fluid had been used to alter the tallies. He will also be the ultimate arbiter of the rerun that took place on June 23rd. Mark Botomani, the information minister, insists these are coincidental: the government merely wants to give Mr Nyirenda enough time to relax and "write his biography".

Since inducement, intimidation and pressure are occupational hazards that African judges frequently encounter, it might have been reasonable to expect Mr Nyirenda's capitulation. But he refused to go, as did Edward Twea, another supreme-court judge the government tried to shuffle into early retirement. Malawi's legal community has rallied around both men. Hundreds of lawyers marched to support them and a court has stayed their dismissal. For the moment, at least, Mr Mutharika (above centre) has had to back down.

The obduracy of Malawi's judges is not only welcome; it could have consequences

beyond the country's borders. Their demand for a re-run of the presidential vote is only the second time that courts in Africa have overturned a dodgy election; Kenya's Supreme Court did so in 2017.

Precedent alone will probably not be enough to free Africa's judiciaries. A culture of subservience to governments runs deep. Allan Hancox, Kenya's chief justice between 1989 and 1993, was fond of telling colleagues that their chief loyalty was not to the state but to the head of state (then the dictator Daniel arap Moi).

Even where judiciaries were more independent, politicians often got the better of them. Robert Mugabe forced Zimbabwe's chief justice and many of his colleagues to resign in 2001 after they ruled that his land grabs were unlawful. A chill swept over Senegal's judiciary after Babacar Seye, the vice-president of the Constitutional Court, was assassinated in 1993 before a ruling on an election petition. And bribery has often been as effective as intimidation in neutering judges.

African judiciaries have grown a little more impartial in recent years. Yet progress is uneven. For every Malawi, there is a Democratic Republic of Congo, where the courts last year upheld President Félix Tshisekedi's victory in an election he actually lost by some distance. For every Kenya, there is a Zambia, where in 2018 the Constitutional Court allowed President Edgar Lungu to ransack the constitution and serve a third term if he felt like it. Varieties

of Democracy, a network of scholars that monitors global freedom, reckons that Africa's courts are less independent than those of any region bar the Middle East.

Broad reforms will be needed to create truly independent judiciaries. But bolder judges can help, too. Malawi's ruling, like Kenya's before it, may inspire some. Others may wonder how judges fare after overturning an election. In Kenya's case, the answer is mostly discouraging.

After his re-election was overturned in 2017, Uhuru Kenyatta, Kenya's president, vowed to make life hell for the judges responsible. The court was unable to delay a re-run of the election because five of its seven judges failed to show up for the ruling after gunmen shot up the deputy chief justice's car the night before.

Since Mr Kenyatta's re-election, the government has made life difficult for the chief justice, David Maraga, and his colleagues. Judgments against the state are routinely ignored and the president has refused to confirm the appointments of 41 judges since July last year. A backlog of cases has grown to more than 600,000.

Some judges may take solace in Mr Maraga's refusal to yield, even if they are unwilling to emulate his lonely struggle. In Malawi judges may be in for an easier time, since Mr Mutharika seems unlikely to return to office (the results of the election were not out when *The Economist* went to press). "Judiciaries in Africa are at a crossroads," says Willy Mutunga, Mr Maraga's predecessor as chief justice. "They either become appendages of the forces that subvert their independence or resist those forces in the interests of the country." ■

Avoiding famine in Somalia

A stitch in time

The UN hopes early intervention can help to prevent humanitarian disasters

IN APRIL DAVID BEASLEY, the head of the World Food Programme (WFP), warned of the danger of "multiple famines of biblical proportions" as a result of covid-19. History suggests that Somalia's 16m people are especially vulnerable. Famines in 1992 and 2011 each claimed more than 200,000 lives. A drought in 2016-17 displaced more than 1m people and caused losses and damage of over \$3bn. This year, in addition to the pandemic, crops have been swept away by floods and ravaged by desert locusts (with a new swarm on the way). The triple blow means that 3.5m people, more than a fifth of the population, face hunger between July and September, according to an agency ►



If famine is predictable, it's preventable

► of the UN and the Famine Early Warning Systems Network, an American-funded outfit that monitors some 30 countries.

Yet this time may be different, if early intervention proves to be as effective as its advocates believe. The UN's Food Security and Nutrition Analysis Unit activated a prepared plan when projections of the share of the population threatened with hunger crossed a preset threshold. Under the plan, the UN's Office for the Co-ordination of Humanitarian Affairs (OCHA) released \$15m from an emergency fund—the first such “triggered disbursement”. It hopes that the World Bank may chip in as much as \$50m to the effort, to ensure that stepping in early really makes a difference. OCHA will announce its priorities for action next week, based on its own pre-prepared menu of options.

That menu was drawn up on the assumption that Somalia's next crisis would involve another drought, rather than a pandemic, locusts and flooding. Some of the measures it envisages, such as the distribution of drought-tolerant seeds, are not relevant to current circumstances. But many others are. These range from handing out cash to public-information campaigns and providing food for people and livestock.

Humanitarian aid typically comes only once a disaster is in full swing. Distressing images of people in need prompt donors to fund relief efforts, usually tied to specific emergencies. But by then suffering is widespread and relief is not cheap. It costs perhaps 50 times as much to save a child who is already suffering from malnutrition as it does to intervene earlier, says Mark Lowcock, OCHA's head. It is four times cheaper to feed a goat than to replace one.

Mr Lowcock has been championing early intervention in situations where data can reliably warn of impending crises and

where a speedy response can make a big difference. In such cases, an anticipatory-action plan can be prepared in advance, involving a number of agencies as well as the authorities on the ground. Moves and money are ready to be triggered when conditions deteriorate.

Interest in this approach has grown, thanks to a few pilot projects and Mr Lowcock's lobbying. He has carved out about \$140m for anticipatory-action experiments, starting with Somalia, over the next 18 months. A plan for responding pre-emptively to flooding in Bangladesh is ready and likely to be triggered at some point this year (the flooding season starts in July). Another is in the works for Ethiopia, where famine looms because of drought and covid-19, though the trigger-points and the likely impact of early intervention in such a big country are still under discussion. A pre-emptive plan for cholera may follow next year: scientists think they can use data to predict outbreaks in specific areas before a single case has occurred.

Whether anticipatory action works as well as its advocates hope remains to be seen. A report last month by the WFP suggests that its effects on households are “mainly positive”, but the evidence base is slim and the authors stress the need for more rigorous studies. The intervention in Somalia is to be monitored and lessons will be drawn from it with the help of the Centre for Disaster Protection, a London-based agency set up by the British government.

The initial \$15m in funding for anticipatory action may not be much. But it could make a big difference to Somalis' lives, and to the future of ahead-of-the-curve intervention. By proving that the concept works, Mr Lowcock wants to “change the whole mentality and mindset of dealing with predictable emergencies”. ■

Travel trouble

Citizens of the world

Wealthy Africans are snapping up foreign passports

A NIGERIAN PASSPORT, says Karo Agono, a Nigerian businessman, raises all sorts of “red flags”. For 15 years international deals made by his finance and property business were held up when people saw his green travel document and then asked for stacks of extra paperwork. Fed up, Mr Agono stumped up \$150,000 for citizenship of a Caribbean country.

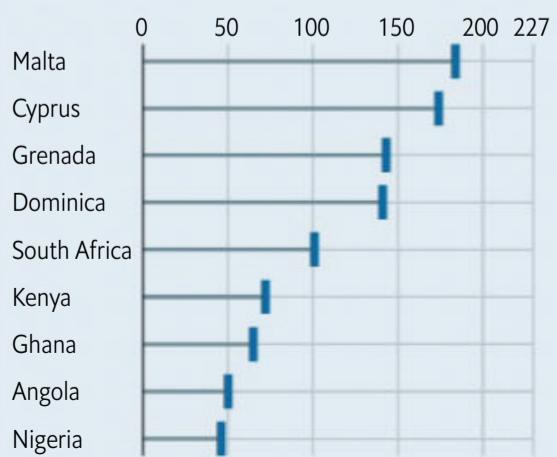
More and more rich Africans are buying second passports or foreign residency rights. They do so because their own passports open few doors (see chart). Henley and Partners, which advises people on how to acquire a spare nationality, says inquiries from Africa are up by a third compared with last year. The firm is opening an office in Lagos, adding to those in Johannesburg and Cape Town. Habila Malgwi of Arton Capital, another adviser, says it has agents in 15 African countries and plans to open an office on the continent “very, very soon”. Covid-19 has led to soaring interest. People, he says, are looking for a Plan B.

Mr Agono, who is waiting for his new passport, hopes it will help him enter new markets. There are intangible benefits, too. Tari Best, who runs a Nigerian logistics company, is expanding his business to Singapore. With his new Grenadian passport “we are treated as equals”, he says. Others wish to whisk a spouse or lover off to the French Riviera or nip over to their kids at Eton without queuing for visas. And a few, of course, want to up sticks altogether.

The wealthy country-shopper has a range of options. A passport from Antigua and Barbuda requires a “contribution” of ►

The book of freedom

Number of destinations for which no visa is required*, by passport held, at April 7th 2020



Source: Henley & Partners Passport Index 2020

*Out of 227

► \$100,000 to the government's National Development Fund or a property investment of \$200,000 that can be sold off in five years. Nigerians, says Mr Malgwi, are especially keen on Caribbean passports, which can be had in just three months.

South Africans and Kenyans seem to favour residency in sunny Portugal. The cheapest option is to buy an old rural villa for as little as €280,000 (\$315,000). For those hankering after European Union citizenship, a "donation" of €650,000 to the government of Malta, topped up by half a million euros in investment, should ensure that a sleek burgundy passport arrives in the post. The cash that countries earn from these schemes adds up. In Dominica annual inflows from foreigners buying citizenship equal 10% of GDP.

Still, some worry about these "golden passports". Didier Reynders, the EU Justice Commissioner, fears they can be used for money-laundering and recently warned that covid-19 should not be used as an ex-

cuse to run dodgy citizenship schemes. Last year Cyprus moved to strip citizenship from 26 investors after "mistakes" were made in vetting them. Among them is a Kenyan tycoon who has appeared in court on allegations of tax evasion. Citizenship firms are at pains to point out that they vigorously screen their clients (though the ultimate responsibility, they are careful to add, lies with governments).

Do well-heeled Africans eyeing a "golden passport" need to grab one now before they all disappear? Probably not, least of all in Malta, where the family law firm of the prime minister, Robert Abela, had a licence to sell Maltese passports (it stopped doing so after he took office in 2020). One way to reduce the demand for second passports would be to make it easier for Africans to visit and work in rich countries. Until then, their best bet may be to copy another Nigerian businessman who recently got a passport from Dominica and resoundingly declares: "It is a life-changer." ■

one to blame for his administration's many failures. His big infrastructure projects have often stalled. A flyover that was supposed to ease congestion in Kinshasa stands half-built. That plan to build homes for the poor has delivered little. Also sentenced to 20 years alongside Mr Kamerhe was Jammal Samih, a Lebanese businessman whose company was allegedly paid \$57m for 1,500 prefabricated houses. Prosecutors say most of that cash has vanished.

The IMF and World Bank, which this week approved a \$1bn aid package, are pressing Mr Tshisekedi to reduce graft. Mr Kamerhe's conviction will doubtless give him a good talking point. But it also puts Mr Tshisekedi in a quandary. For although he needs to satisfy donors that he is cleaning up, he would rather do so without annoying Mr Kabila, whose family has extensive business interests and whose party has more than two-thirds of the seats in parliament—and thus has the power to impeach the president.

The case has knocked a troublesome rival to Mr Tshisekedi out of the running in the next election. But it has also weakened him in his tussle for power with Mr Kabila by depriving him of support in Bukavu, Mr Kamerhe's home town. Protesters there burned tyres when they heard the verdict.

Mr Kamerhe and Mr Samih have been packed off to Makala prison in Kinshasa, where thousands of inmates are crammed together in stinking cells. Even there, the graft may continue: guards are known to take backhanders in exchange for giving inmates a bit more space and comfort. After decades of colonial plunder and looting by politicians, one trial will not be enough to convince most Congolese that the thieves at the top will be held to account. But it is a start. ■

Corruption in Congo

Laughing all the way to the slammer

Vital Kamerhe, an aide to the president, gets 20 years for graft

POLITICIANS ARE so rarely punished for stealing public money in the Democratic Republic of Congo that some find the idea absurd. Perhaps that is why Vital Kamerhe, the president's former chief of staff, laughed aloud as a judge condemned him to 20 years in prison on June 20th.

Footage of his trial was live-streamed. His bedraggled appearance, unshaven in a blue prison jacket, elicited little sympathy. He was found guilty of stealing \$48m earmarked for building homes for the poor. Few believe his protestations of innocence. (He says the charges were purely political.)

Mr Kamerhe (pictured below on the left) is the most senior Congolese politician ever to be put away for graft. "We are happy, the big fish has been sentenced," says an interpreter in Kinshasa, the capital. "It is a good start for the rule of law in Congo."

Yet it was hardly a model case. Raphael Yanyi Ovungu, the judge who had presided over most of the hearing, died suddenly in May. Initially the police said that he had suffered a heart attack. However, an autopsy revealed that he had been stabbed several times in the head. Somehow, this detail had escaped the cops' attention. The authorities, who have now started a murder investigation, have yet to explain how the assailant slipped past armed policemen guarding the judge's house.

Mr Kamerhe's claim that he was prosecuted for political reasons is not absurd. Even if he did steal a heap of public money, he would hardly be the first Congolese politician to do so. His punishment may have as much to do with his ambition as his morals. He was powerful enough to be feared. He held various senior posts under Mobutu Sese Seko, Congo's dictator for three decades. He then worked for Laurent Kabila, the rebel who deposed Mobutu in 1997. After Kabila was murdered in 2001, he helped his son Joseph win a dodgy election in 2006. He fell out with the second President Kabila and later teamed up with an opposition figure, Félix Tshisekedi (pictured right). Mr Tshisekedi was then handed the keys to the presidency by Mr Kabila after a brazenly rigged election in 2018.

Mr Kamerhe's repeated turncoating may have irked Mr Kabila, who still calls most of the shots in Kinshasa. A pre-election pact with Mr Tshisekedi that would have allowed him to run for president in the next election in 2023 may have blunted the incumbent's incentive to protect him. Pierre-Olivier Sur, one of Mr Kamerhe's lawyers, says he was convicted for the "purpose of exclusion in the coming election" and that he "swears his innocence" before the Congolese people.

Mr Tshisekedi may have needed some-



Smile! It's candid Kamerhe



Transatlantic security

Going home

KAIERSLAUTERN

Donald Trump's baffling proposal to withdraw troops from Germany

“IT’S LIKE having a stroke, and then a second one in the ambulance,” sighs Stefan Weiler, economic-development chief for Kaiserslautern, in south-west Germany. The city was already battling high debt and the effects of covid-19. Then came Donald Trump’s announcement that America would withdraw 9,500 of its 34,500 troops stationed in Germany. Some 50,000 American soldiers, civil staff and family members live in and around Kaiserslautern. The bases employ 2,700 locals and tens of thousands indirectly, from hotel-owners to parts suppliers. “They’re our neighbours, they rent our houses, our kids play football together,” says Ralf Hechner, mayor of nearby Ramstein-Miesenbach, which adjoins a vast American air base.

This local warmth found a national echo. Over decades dozens of American military bases—concentrated in Germany’s south, the area of post-war Ameri-

can occupation (see map on next page)—have cemented the bond between the NATO allies. “I used to get a visit almost every year from the [premier] of Bavaria,” says Jim Townsend, the Pentagon’s former top official for Europe. “We were important to him, and he was important to us.”

Mr Trump and surrogates like Richard Grenell, his boorish former ambassador in Berlin, have long threatened to prune America’s military presence in Germany.

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This time it looks credible. At a rally in Oklahoma on June 20th Mr Trump justified his proposal with a familiar charge-sheet: a “delinquent” Germany free-rides on American protection, spending nugatory sums on defence while backing a Russian gas pipeline. “On top of it they treat us very badly on trade,” the president huffed. A day later Robert O’Brien, Mr Trump’s national security adviser, attempted to retrofit a strategic rationale onto his boss’s decision. The cold-war practice of massive army garrisons with families was “obsolete”, he wrote in the *Wall Street Journal*, because “modern warfare is increasingly expeditionary”. Troops were needed in Asia to counter China, he added.

This account “would not pass muster” at any military college, says Ben Hodges, who commanded American army forces in Europe until 2017. Although the reduction would represent just 15% of its troops in Europe, Germany is a crucial cog in America’s global military machine. The Pentagon’s European and African commands, which control every soldier, tank, warplane and warship in their domains, are based in Stuttgart. The army’s European headquarters are in Wiesbaden, and Germany hosts five of its seven European garrisons, including Grafenwöhr, its largest base outside America. Ramstein is a hub ➤

► for directing drone strikes in Afghanistan, Pakistan, Somalia and Yemen (to some German consternation). The Landstuhl military hospital has treated 95,000 American soldiers wounded in Iraq and Afghanistan since 2001. "The amount of time and lives that that has saved is just incredible," says Rachel Ellehuus, a former Pentagon official now at the Centre for Strategic and International Studies, a think-tank. A vast \$990m replacement, nicknamed the "UFO" by locals, is being built nearby. At least 40% of American activity in Germany supports operations elsewhere, estimates Ms Ellehuus.

A drawdown would follow a decades-long thinning of America's presence. Over 10m of its troops were cycled through Germany from 1950 to 2000, with 250,000 deployed for much of that time. That had dwindled to under 70,000 by the turn of the millennium, and fell by half again between 2006 and 2018. Between 2005 and 2020 America's overall footprint in Europe shrank by over a third. That leaves little fat to trim. American capabilities in Europe are spread so thinly across various functions that cutting any one of them by 30% would, in effect, eliminate it, warns General Hodges. American generals in Germany are said to be baffled by the proposal.

Yet among Germans the plan has elicited a broad shrug, at least in public. Watching a Pentagon apparently at odds with the White House, German officials know they can only hope to be bystanders. Barely half of German voters see American bases as important to national security. Although Germany is still far short of the NATO defence-spending target of 2% of GDP (see chart), and plans to reach it only in 2031, recent increases mean that in absolute terms its military budget is now not much different from that of Britain or France. American accusations of free-riding therefore no longer carry quite the same sting.

Nerves are jumpier farther east. A drawdown from Germany could weaken NATO's



ability to send reinforcements to "tripwire" battle groups stationed in Poland and the Baltic states to deter Russia. Worse still, America seems to be playing allies off against one another, undermining NATO cohesion. On June 24th Mr Trump, standing beside Andrzej Duda, Poland's president, at the White House, said some American troops would probably be moved from Germany to Poland. The meeting was a welcome boost for Mr Duda, who faces elections on June 28th and has long courted a greater American military presence. (In June last year Mr Trump agreed to send Poland 1,000 troops, on top of 4,500 already there.) But Mr Duda also felt compelled to say that he had asked Mr Trump not to withdraw any troops from Europe.

At home, Mr Trump's announcement has had the unusual effect of galvanising bipartisan opposition. Twenty-two Republican members of Congress objected that cutting troops would encourage Russian aggression and undermine American military effectiveness. A Democratic bill seeks to deny funding for costs incurred by the withdrawal. With barely four months until an election that could see Mr Trump defeated by Joe Biden, who says he wants to repair America's alliances, delay to a withdrawal plan that already faces considerable logistical hurdles could be fatal.

Yet as Heiko Maas, Germany's foreign minister, has warned, the Atlantic is clearly widening. Tiffs over energy, trade, security and China are now threaded through the entire transatlantic relationship. Pro-American Germans say the sabre-rattling of Mr Trump and Mr Grenell makes it harder for them to make their case to a sceptical public. A recent Pew poll found that Germans now value their relations with China as strongly as those with the United States. Still, at least in Kaiserslautern, America-philia reigns supreme. "We don't want the troops to leave," says Mr Weiler. "It's an honour to have them here." ■

Italy

No longer a figurehead

ROME

Its technocratic prime minister is surprisingly popular

ITALY HAS had other non-party, technocratic leaders in modern times: Carlo Ciampi, Lamberto Dini and Mario Monti, all of whom came into office with more illustrious cvs than Giuseppe Conte. Mr Conte was an unknown law professor when, in 2018, he was tapped by the anti-establishment Five Star Movement (M5S) to lead its populist coalition with the hard-right Northern League. Yet none of the other technocrats succeeded in heading a second government, as Mr Conte has done since last September, when the M5S switched partners to yoke itself to the centre-left Democratic Party.

Not only that; Mr Conte has grown increasingly popular. Surveys by Ipsos, a polling firm, found that the prime minister's approval ratings shot up in March from around 50% to 61%, the same figure as recorded again on June 11th. That was clearly because of covid-19, which may seem odd. On March 9th Mr Conte imposed one of Europe's strictest lockdowns, and his government's handling of the crisis was scarcely faultless. But within Europe Italy was the first country badly hit by covid-19, and Italians seem not only to have made allowances for that, but to have appreciated the way Mr Conte took responsibility for managing the crisis.

Reinforcing his authoritative image, Mr Conte called a nine-day think-in on how to revive Italy's economy, grandiloquently entitled a States General. Its most eye-catching suggestion, a drastic cut in VAT, received a lukewarm reception. Still, Mr Conte remains more popular than any party leader, and much recent speculation has centred on whether he might become one—either as head of the Five Stars, leaderless since the resignation of Luigi Di Maio in January, or a new formation which, it has been mooted, could name itself Conte (Italian for "With you").

Mr Conte has pooh-poohed the second possibility. He is doubtless aware of Mr Monti's unhappy experience at a general election in 2013, when his alliance won less than 11% of the vote. Polls have suggested a putative Conte could fare even worse, but that an M5S headed by the prime minister might harvest 20% or even 30% of the vote. That is a tempting prospect, not just for Mr Conte, but for a party that has lurched between fiascos and scandals since last September. The latest setback came in a report that Gianroberto Casaleggio, who helped

With a little help from my friends



Let's rethink how the world works.

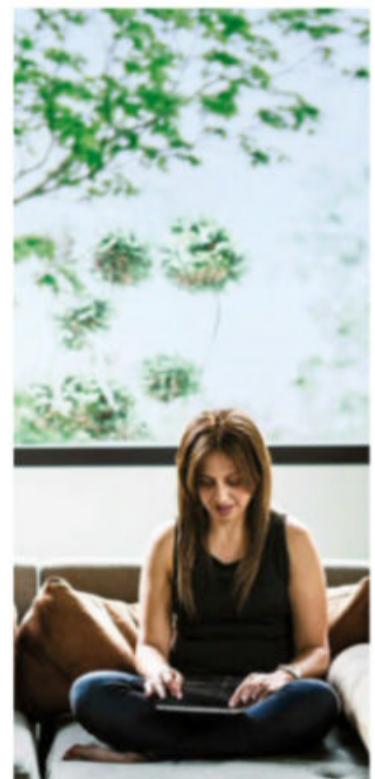
Businesses and communities around the world are in various stages of reopening. As they do, changing how they work isn't a consideration for tomorrow—it's an imperative for today.

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It's a rethink.

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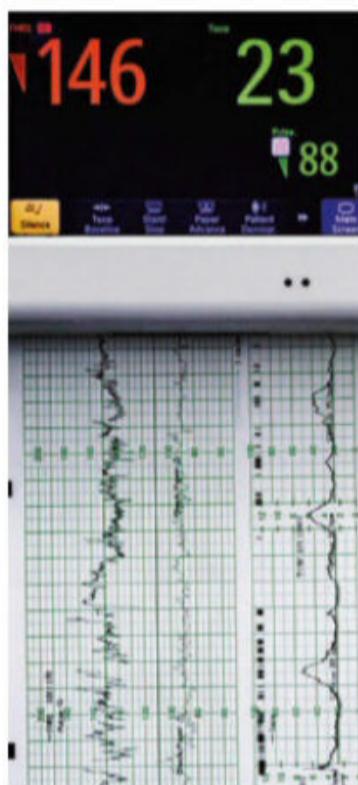


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▶ create the M5S, accepted a secret €3.5m (\$3.8m) donation from the far-left Venezuelan regime of Hugo Chávez in 2010. Venezuela's embassy in Rome and the M5S have denied the report. But repeated defections from the Five Stars—the latest on June 23rd—have left the government with an alarmingly slim parliamentary majority.

Not that it is the only Italian party in difficulty. The League, though still the most favoured party, has slipped in the polls to around 25%—12 points below its peak last July. Its leader, Matteo Salvini, blames the pandemic, specifically the restrictions that have prevented him holding his usual rallies and walkabouts. But the slide began well before lockdown, and the polls suggest growing numbers of right-wingers are attracted to the more conventional, though arguably more extreme, conservatism of the Brothers of Italy (FdI) party. The FdI was built on what was left of the neo-fascist movement. It has been getting around 15% in recent polls. Italians can still give their fellow Europeans plenty to worry about. ■

Tourism in the south of France

Empty palaces

LA CIOTAT

Foreign yachts are stuck on dry land, returning the Riviera to the French

TUCKED BEHIND a craggy peak on the Mediterranean coast, La Ciotat has served as a harbour for local fishermen since the 15th century. Today, the port is better known for a different sort of seafarer. One in seven of the world's superyachts over 50 metres long—equivalent to the height of the Arc de Triomphe—passes through La Ciotat Shipyards at some point each year. With 300 berths in its dry dock, the yard carries out roughly a tenth of the refit and repair of all the big yachts in the world. At this time of year most are usually out at sea, or moored in Cannes, St Tropez and beyond. Today, as France emerges from lockdown, the yard is still full of gleaming yachts, among them a 115-metre floating palace once owned by Roman Abramovich, a Russian tycoon.

Confinement has crushed tourism in France. In a normal year nearly 90m foreigners come to admire its chateaux, museums, vineyards and beaches, making France the world's top international tourist destination, ahead of Spain. In April, with planes grounded and borders largely closed, the number of German, Italian and Spanish visitors to France fell by 99% on the previous year. For nearly three months, hotels and restaurants were shuttered. On the Riviera "the situation was catastroph-

Kosovo

Mr Thaci doesn't go to Washington

Kosovo's president faces war-crimes charges

HASHIM THACI had clearly not been expecting to be charged with war crimes, murder and torture on the afternoon of June 24th. A few hours earlier, the president of Kosovo had been busy discussing a much-ballyhooed summit planned for three days later in the White House with Aleksandar Vucic, his Serbian opposite number. Perhaps it would even have led to the pomp of a signing ceremony in the Rose Garden. Richard Grenell, an American diplomat, had done everything to secure the meeting in the hope it would give President Donald Trump a rare foreign-policy success to boost his election campaign.

Mr Thaci has towered over his country's politics ever since he traded in his fatigues for suits at the end of the Kosovo war in 1999. He was always more of a political commissar than a fighter, but he was a key figure in the Kosovo Liberation Army, which had been battling to end Serbian rule. That year, after 78 days of bombing by NATO, Serbia handed the province over to the UN to administer; and in 2008 Kosovo declared independence, which Serbia has never accepted.

Mr Thaci and Kadri Veseli, the leader of his political party, were charged by the Kosovo Specialist Chambers, a new body in The Hague, backed by the EU and America, that was founded in 2015 after a vote in Kosovo's parliament. Though staffed by international judges and prosecutors, it operates under Kosovo law and is a Kosovar institution.

In 2010 a Swiss prosecutor had written a report for the Council of Europe implicating Mr Thaci in drug smuggling and murder, accusations he has always denied. As a result, his allies in Europe and America encouraged him to support

ic," says Claire Behar, director of the Côte d'Azur regional tourism committee. The Cannes film festival was cancelled. Foreign tourists—yacht-owners included—had to stay away. The overall regional hit to tourism, calculates the committee, was a whopping €1.3bn (\$1.5bn).

Just along the coast from La Ciotat, the colourful harbour of Cassis on a post-confinement weekend is nonetheless thronging—with French people. A queue at the ice-cream parlour stretches down the street. Beachgoers form another as they wait for masked policemen to hand out orange flags, which they use to mark an occupied socially distanced space on the

the creation of the chambers and their jurisdiction. He did so—but later came to rue the day. Last year he lobbied to have it shut down.

In any case, the charges still need to be confirmed by a pre-trial judge. What is odd is the reason given by the prosecution for airing the charges before this has happened. Mr Thaci and Mr Veseli "are believed to have carried out a secret campaign" to obstruct the work of the court "to ensure they do not face justice", the prosecutors explained.

The timing of the announcement, says Agron Bajrami, who edits Kosovo's leading daily newspaper, suggests that something was afoot that made prosecutors unveil their charges just as Mr Thaci was about to set off for Washington. The summit might have lent prestige both to Mr Trump and Mr Thaci. Not now.



Not quite the reception he wanted

sand. The marina is full. Almost every table in harbour-front restaurants is taken. Pastis and *vin rosé* are flowing.

Business looks brisk. But "it's not busy at all," says the manager at La Maison, a restaurant in the port. He says business is only at a third of normal levels for the month of June. Crucially, he adds, local French tourists "do not spend as much as the Germans or northern Europeans." The gap could make all the difference to the survival of the many small family-owned hotels and restaurants. A government forecast expects hotel, holiday-home and campsite bookings even by the French to be only 20% of normal in July and 40% in August. ►

► As for the Americans and Chinese, usually ferried into the little port from towering cruise liners docked in nearby Marseille, they are absent.

This point is crucial for the French Med. Local tourism, however welcome, cannot replace the foreign variety. A French tourist on the Riviera spends an average of €58 a day. Russians, Americans and Middle Easterners splurge nearly three times as much. In preparation for an expected easing on July 1st of EU rules for travel, the region is launching marketing campaigns to remind people of its charms and to reassure them about covid-19. Nice airport has already begun to schedule flights to and from other European cities from July. The city is also

the starting-point this year for the Tour de France cycling race, rescheduled for August 29th. The aim for the Riviera, says Ms Behar, is “to save the rest of the season”.

In the meantime locals are getting a hint of what the south of France must have felt like in the 1950s, when St Tropez was still a fishing village. Few cars with foreign number plates are to be seen on the roads. Of the French who plan a holiday this summer, 71% told a poll they intend to stay in France. Locals may secretly rather like having their beaches and restaurants to themselves. But those in the tourist industry yearn for high-spending Germans and Russians to return, even if their yachts sometimes spoil the view. ■

plus central Asia now has the world's fastest-growing HIV epidemic. It is unsurprising, then, that Ukraine, home to the region's second-largest HIV scourge, behind Russia, has outlawed knowingly putting someone at risk of HIV. The rule is supposed to drive down infection rates, but it doubles as an excuse to punish the HIV-positive, especially women. From 2015 to 2018, only women were sentenced under the provision. And in late 2018, a judge used it to give a Ukrainian woman five years in jail for biting someone. Such harshness reflects cultural stereotypes, reckons Maria Plotko of the Eurasian Harm Reduction Association in Vilnius: that a man can “drink a lot” but a woman is “a mother first of all and mothers cannot use drugs.”

Stigma helps explain why women struggle to get treatment. Some do not want to be spotted at treatment centres or harassed by male addicts there; others have no child care. In Ukraine, about 17% of harm-reduction sites had not one female patient. Pregnant users may suffer worst. The World Health Organisation recommends they protect themselves and their babies by undergoing opioid-substitution therapy, a process of replacing injectable drugs with pills dispensed in careful doses. Russia bans the therapy, so its drug users who get pregnant are simply told to go cold turkey or pushed to try unproven treatment such as antipsychotic medication or religion.

Harm-reduction advocates have tried to help. Ukrainian activists are lobbying to nix the part of the family code that deprives drug users of parental rights. In Hungary, Chicks Day, a weekly women-only needle-and-syringe exchange service, has provided clean equipment. Such services matter for female users, who often get “second on the needle” after men have used it.

Most portents, though, are bleak. Last year Russia's President Vladimir Putin urged tougher punishment for spreading “drug propaganda”, or any information “encouraging” drug use, which includes harm-reduction charities. Anya Sarang, president of the Andrey Rylkov Foundation in Moscow, has resigned herself to removing some of the most controversial material from her organisation's website or risk bankruptcy from unaffordable fines. Bulgaria temporarily stopped its safe-needle-and-syringe programmes after the Global Fund, a health charity, withdrew funding. Advocates fear the same could soon happen in Ukraine.

Twelve years into her recovery, Ms Moroz, now a human-rights campaigner and mother of two, started using drugs again, though these days it is cannabis and pills, rather than the injectable sort. The relapse was the result of wartime despair in Ukraine, which left her displaced and her husband captured. Female drug users are still fighting to become anything else. ■

Women and drugs

Overdosed

Tough-on-drugs policies often hit women hardest

SVITLANA MOROZ started injecting opium as a 16-year-old in Ukraine. Soon she grew accustomed to policemen and their friends taunting her, or assaulting her. Their attitude, she recalls, was “you are a woman who uses drugs, so we can use you how we want.” At 19, she received a double diagnosis: pregnant and HIV-positive. Scared of harming her baby, she decided to quit drugs, but to do so alone. If she sought treatment she would need to register as a drug user with the state. Then would come coaxing by doctors to have an abortion, or later, threats of losing parental rights: drug abuse is grounds enough. If that happened, she would need proof of maternal stability—an income, a residence—to get her child back. But a drug-user designation scares off employers.

Such cycles churn across much of culturally conservative eastern Europe, where drug use is high and punishments are severe. Devised in the Soviet Union and known today in Russia as “social intolerance”, the region's standard approach is to make drug users' lives miserable so they will stop. Western Europe, by contrast, inherited another strategy, this one from Switzerland in the 1980s and other countries. “Harm reduction” encourages people to address their addictions gradually with support rather than punishment. On paper, the western way has gained ground. In 2019 all eastern European countries except Russia had some national commitment to harm reduction (though implementation is patchy). Almost none focused on the problems of female drug users; globally, too, just 2% of resolutions adopted by the United Nations Commission on Narcotic Drugs over nine years (2009-18) did so. Yet women often suffer the most.

More than a third of women addicted to opioids in Ukraine say they have been threatened with violence by police; 13% say they have been raped by them. In St Petersburg, 81% of HIV-positive women who inject drugs say they have suffered violence at the hands of partners. But the region's domestic-violence shelters frequently turn away women who abuse drugs or alcohol.

To make matters worse, eastern Europe



In need of help, not punishment

Charlemagne | Doomed to lead

Germans are in charge of Europe, whether they like it or not



WALK INTO any meeting in Brussels and, most likely, a German will be leading it. In the European Commission, Ursula von der Leyen, the former German defence minister, is in charge. For the next six months, German ministers will be cajoling their peers into signing off legislation as the country takes over the EU's rotating presidency. In the European Council, where the bloc's leaders butt heads, it might technically be Charles Michel, the former prime minister of Belgium, heading it. But it is Angela Merkel—longer in post than the leaders of France, Spain, Italy and Poland combined—who is the undisputed top dog. The EU's main response to the covid-19 crisis—a flagship €750bn recovery fund paid for with debt issued collectively by the EU—is based on a plan cooked up in Berlin and Paris. The Germans are running the show.

Usually, German power in Brussels is the political equivalent of dark matter: invisible, difficult to measure and yet everywhere. Now the Germans are stars, shining so bright as to be impossible to ignore. There was no devious Teutonic plot to grab power. Mrs von der Leyen owes her position to Emmanuel Macron, the French president, rather than patronage from Berlin. (Mr Macron pushed Mrs von der Leyen because he could not bear the thought of Manfred Weber, also a German, getting the job.) It is not Mrs Merkel's fault that no French president has won a second term since she came to power, or that most Italian prime ministers fail to complete their first. A quirk of the calendar left Germany holding the rotating presidency. Whether they want it or not, German hands now grip the EU's levers of power, just as the bloc overhauls itself to cope with the covid-19 crisis.

Being coy on the European stage used to work well for Germany. For obvious historical reasons, Germans do not like being seen to throw their weight around. And the EU's status quo suited them. A single market let German supply chains whirr effectively and goods flow seamlessly. The euro allowed German exports to soar without the bother of an appreciating currency. Any downsides were exported to southern Europe. Unemployment in Germany stands at only 3.5%, less than half that of the euro zone as a whole and a quarter of the Spanish figure. From a German perspective, the EU was not broken and did not require fixing.

This happy status quo is now under threat, often from Ger-

many's own actions. When the EU's economy lurched to a halt, the European Commission loosened its strict rules on government funding for stricken businesses. But officials did not expect Germany to pledge €1tn for such support—nearly half of the EU's combined total. As a result, well-run Spanish firms are likely to go under due to lack of state support, while stodgy German competitors are kept alive by German taxpayers, undermining the “fair fight” logic of the single market. At the same time, Germany's constitutional court recently aimed a blow at the European Central Bank's efforts to inject more liquidity into the euro-zone economy, when German judges challenged the bank's asset-buying programmes. In this sense, German support for mutualised debt might be seen as a polite apology for causing offence.

Saying no to common debt had been a red line for the German establishment. Now, however, a recognition that Germany needs Europe—not just vice versa—dominates thinking in domestic politics. Arguments for the recovery fund, which will see huge increases in German spending on the EU's budget, are couched in terms of self-interest. This marks a shift in world-view towards that of Alexander Hamilton, the father of debt mutualisation in the early American republic. During the euro-zone crisis, the debate over bail-outs was steeped in the idea that diligent Germans were bailing out feckless Greeks (rather than the feckless German and French banks who lent them the money in the first place). In a pandemic-induced crisis, there is less blame to go round.

Instead, there is recognition that without some form of transfer between Germany and her struggling neighbours in southern Europe, political misery beckons. The EU is supposed to be a convergence machine, spreading prosperity rather than embedding differences between rich and poor countries. It has not worked that way. When the euro was introduced at the start of the millennium, Italian GDP per capita was 20% below Germany's. Now the gap is nearly 40%—a figure that will only widen during the crisis. Italians may question the rationale of membership if their incomes continue to stagnate. It is for this reason that Mrs Merkel frames the recovery fund as a “political instrument against populists”.

Keeping the EU on the road takes on an existential importance now that America, the bedrock of German prosperity in the post-war era, has become an erratic ally. Strengthening the EU's internal structures, by filling the gaps in its pockmarked constitution, is seen as the best way of protecting it from external threats. Ideas that were once off-limits, such as the long-winded, politically difficult task of changing the EU's treaties, are now openly floated by Mrs Merkel. It is, at heart, a conservative radicalism. Things are allowed to change, but only so that things stay the same—specifically the rich, peaceful lives of German voters.

A still-reluctant hegemon

German leadership in Europe makes people uneasy, particularly Germans. In private, Mrs Merkel used to point out that Germany was unsuited for such a role since the country was itself a mini-EU, its complicated federalism built on delicate compromise. Nimble decisions were impossible in such circumstances. Anyone relying on Germany to take bold steps would be disappointed, as many were. If this record is to change, now is the time. An institutional conjunction has left Germans calling the shots in Brussels. Rather than a lame chancellor limping to the end of her 15-year career, Mrs Merkel sits on a pile of political capital, gained from competent handling of the pandemic. Germany has the means to change Europe—if it chooses. ■



Labour's leader

Starmer's army

Keir Starmer is a hit with voters. The Labour Party is not

IN THE COURSE of his weekly online chats with voters, Sir Keir Starmer, the Labour Party's new leader, asks callers to be blunt about where the party went wrong. A group from Northumberland does not disappoint. Participants complain about its anti-Semitism, neglect of the north and economic incompetence, along with its positions on Brexit and immigration. But Louise Hantman offers a word of comfort. "We feel quite excited that you're there now. There's a light on the horizon."

She's not the only fan. Sir Keir, who took over as leader three months ago, has had a good debut. His net satisfaction score of 31% matches the best figure Tony Blair achieved as leader of the opposition (see chart) according to Ipsos MORI. The best Mr Starmer's predecessor, Jeremy Corbyn, scored was -1%. Worryingly for the Tories, says Ben Page, the polling firm's chief executive, undecided voters tend to go for Sir Keir as they make up their minds. According to a survey by YouGov, voters find him less likeable than Boris Johnson, but more competent and more decisive.

Coronavirus has provided rich opportunities for Sir Keir. He has supported Mr Johnson on big strategic decisions, and needled him on testing regimes and care homes at prime minister's questions. Mr Johnson mocks the former Director of Public Prosecutions as a dithering lawyer, but the Rt Hon Sir Keir Starmer KCB QC MP's Scrabble-board of credentials and bookish seriousness—he pores over spreadsheets of covid-19 data before his duels with the prime minister—seem to reassure voters put off by Mr Corbyn's anti-establishment tendencies.

But while voters tell pollsters that Sir Keir looks like a prime minister in waiting, they believe by larger margins that the Labour Party is not ready for government. The brand is soiled. The Conservative Party has an eight-point lead over Labour, according to the most recent YouGov poll, down from 24 at the height of the coronavirus crisis, and a little down from its 12-point lead in the general election. Voters think that Labour is weaker, less competent and less moderate than the Tories are.

→ Also in this section

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48 Bagehot: Munira Mirza

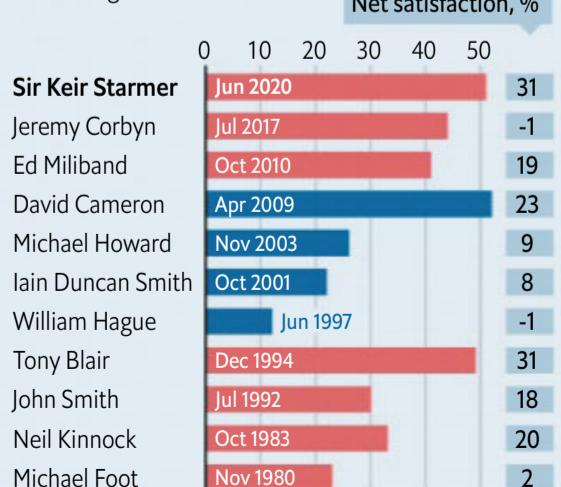
Rehabilitating a party that disappeared down an extremist rabbit-hole and lost four elections on the trot is a big task, but there is progress. Labour has gone back to the basics of being an opposition party. Meetings start on time, MPs receive proper briefings, and the "grid" that sets the party's news agenda is observed. Like Mr Blair, Sir Keir urges members not to blame the press for their woes, and says elections should be fought on five pledges, "not 125". He wants the party to talk about aspiration and "people who want to get on", as well as the downtrodden.

Sir Keir has broken the grip of the Corbynists who once controlled the party. ►

Starming ahead

Britain, satisfaction with opposition leaders

Date of highest score, %



Source: Ipsos MORI

▶ “Starmer is master of all he surveys,” says a veteran. His supporters have won a majority on the all-powerful National Executive Committee. Corbyn loyalists have been axed from the shadow cabinet. Jennie Formby, a Corbyn ally, has quit as general secretary in favour of David Evans, a Starmer man. Sir Keir has apologised to Jewish groups for the anti-Semitism that thrived under Mr Corbyn, and his dominant position will allow him to overhaul the party’s disciplinary process. The Board of Deputies, a leading Jewish body, says things are going in the right direction. “Don’t underestimate the importance of stopping crazy things from happening,” says an old party hand.

“How does Keir’s start compare with mine? It’s manifestly better. He’s more capable, and more reassuring, at 58 than I was at 41,” says Neil Kinnock, who modernised and moderated Labour as leader in the late 1980s. And Sir Keir’s foes, in Mr Johnson and the Corbynistas, are less daunting than Margaret Thatcher and Militant, whom Lord Kinnock faced.

Given that Labour’s performance in the general election of December 2019 was its worst since 1935, it might reasonably be assumed that things can only get better. But a report published in June by Labour Together, a group of party thinkers, and co-written by Ed Miliband, a former leader and close ally of Sir Keir’s, warns otherwise. It concludes that cultural and demographic trends loosened Labour’s grip on northern English seats for 20 years before Mr Corbyn handed them over to the Tories. Another moderate swing in the 2024 election would see 58 seats including Rotherham, Hartlepool and Halifax turn blue. Labour needs to win 123 seats to form a majority in Parliament in 2024, a swing similar to Mr Blair’s in 1997.

The biggest challenge is the economy. Sir Keir thinks the pandemic changes the debate on state spending and intervention in the economy to Labour’s advantage. But Mr Johnson wants to pour cash into railways, roads and hospitals, and voters think the Tories are better at running the economy by a margin of two to one. That makes it risky for Labour to outbid them. A shadow cabinet member warns against timidity. “If we say nothing, how does that rebuild competence? That is the big strategic dilemma we face.” Peter Mandelson, an architect of Mr Blair’s victories, thinks the party needs a new agenda that embraces life sciences, artificial intelligence and entrepreneurs. “We have to own the future, not try to reheat the past.”

Another is culture. Labour’s older voters tend to agree with statements such “an eye for an eye” and “I am proud to be British”. Its younger urban voters do not. Like Mr Blair, Sir Keir has tacked right on cultural issues, backing a Tory policy of long prison

sentences for yobs who vandalise war memorials, and has ducked a debate on trans rights. He praised Black Lives Matter protesters, but condemned the toppling of a statue in Bristol. Allies say he will be tough on law and order, and unequivocal in backing Britain’s spies and armed forces. This may test the patience of the Corbyn-era intake of radical young MPs. On Brexit, Sir Keir, who pushed for a second referendum, says the issue is settled.

The third big challenge is Scotland. On the issue of independence—which the Scottish National Party wants, and the Tories oppose—Labour sat in the middle of the road, and got run over. It held 41 seats out of 59 in 2010, and now has one. Without a recovery in Scotland it will struggle to win a majority in Westminster, so it needs to take a clear position on the union. But which? Support for a second independence referendum offers the possibility of a coalition with the SNP, but may alarm English voters who fear a break-up. Ruling it out might win back older Scottish voters who left for the Tories, but cost it with the young, who favour independence.

Given where Labour was six months ago, what Sir Keir has achieved is astonishing. “Something as simple as not being ashamed of the Labour Party is incredibly refreshing,” says an old hand. “But a return to normality is not sufficient to do what’s required in four years’ time.” ■

Virtual agricultural shows

MooTube

A Scottish staple goes online

AGNES AITKEN knows exactly what she is after. “I’m looking for a pleasant head, with a kind eye when she looks at you,” she explains. “A nice personality, a long slender neck, a nice shoulder and a wide chest.” Mrs Aitken, in short, is searching for a goat. And not just any old specimen with a wispy beard and a gammy leg; one fit to be declared the finest in all of Scotland. Fortunately, at least some of the animals she has been inspecting seem to fit her exacting brief. “The quality has been good,” she goes on. “There’s also some at the tail end, but we’ll not dwell on them.”

Scotland’s summer calendar is usually packed with agricultural shows. Nancy Nicolson, farming editor of the *Courier*, a Dundee newspaper, goes to one every weekend between May and September, taking her wellies “no matter what the forecast”. Covid-19 has put a stop to that. It is easy enough for a caber tosser to persuade



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others to keep a social distance; harder to make animals (and their handlers) stay two metres apart or to prevent crowds forming for a celebratory whisky. Even with lockdown loosening, the Scottish social calendar is bereft of such festivities.

But Ms Nicolson couldn’t face a summer without a single show. Her newspaper’s solution—Scotland’s first online agricultural show—will be held on July 3rd and 4th. Mrs Aitken, who has kept goats for 27 years, is one of ten judges. She will assess home-made video clips of each goat to determine a winner. It is a daunting task. “When you’re judging an animal, it’s hands on,” she says. “The feel of it is important, the texture. You move around, you duck and dive.” None of that is possible watching a YouTube clip. Still, “it’s the same for everybody, no one has an advantage.”

The format has enabled farmers from much farther afield to enter. Scottish goats will face competition from well-groomed rivals from Cornwall and Northern Ireland. Prizes for dogs, cakes and farm machinery will be determined by a public vote. At the end of the weekend, the most prestigious prize—champion of champions—will be handed out. “An enormous Charolais bull goes up against a pygmy goat and sometimes a duck,” says Ms Nicolson.

Such a contest is a little absurd, but shows are also a serious business. Prizes help breeders fetch higher prices for their livestock. And the events bring farmers from across the country together, a welcome respite from work that can be socially isolating as well as physically demanding. Not all of that will be possible online, of course. “You can’t replicate the drams in the show marquee,” concedes Ms Nicolson. “But farmers are a competitive bunch and it’s the only show in town.” ■



AMERICA'S 2020 ELECTION

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Hello and welcome to Checks and Balance, *The Economist's* new newsletter on everything to do with America's elections in 2020. I am John Prideaux, the paper's United States editor, based at our headquarters in London. Every week I will be sending you my pick of the elections-related content that my colleagues and I have produced.

The best of our US elections coverage
From across *The Economist*



Mayor Pete's edge
How to win in Iowa
It helps to press plenty of flesh—but also to spend a lot of money



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Should the federal government subsidise students, or make college free?
Another fault line in the Democratic policy primary



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Bagehot | Revolutionary conservative

Munira Mirza is unlikely to calm the tension around Black Lives Matter



DURING A RECENT Black Lives Matter protest in Hyde Park, one of the organisers, Imarn Ayton, led the crowd in chanting “Munira Mirza must go”. “She does not believe in what we believe in,” proclaimed Ms Ayton. “New narrative today!” As director of Number 10’s in-house think-tank, the Policy Unit, the unbeliever in question has hitherto been an obscure figure in Boris Johnson’s high command, albeit an important one. She has been content to let Dominic Cummings soak up the media’s attention while building up the most impressive Conservative policy team since Margaret Thatcher’s day. But Boris Johnson’s decision to give her the job of establishing a new government commission on racial inequalities immediately transformed her into a lightning rod.

Ms Mirza is an unlikely Tory. Her parents—a factory worker and a part-time Urdu teacher—migrated from Pakistan to Oldham, a northern working-class town. She went to an overwhelmingly Asian comprehensive school and was the only pupil from her sixth-form college to go to Oxford University, where she got a first in English. She joined the Revolutionary Communist Party (RCP), a Trotskyite groupuscule that regarded the Communist Party of Great Britain as a bunch of sell-outs. She spent her spare time reading not just Lenin and Trotsky but also Antonio Gramsci, who believed that revolutionaries need to take over “the culture” as well as the formal institutions of power. She moved to Kent University to study sociology with Frank Furedi, leading light of the RCP, and wrote for the party’s in-house journal, *Living Marxism*.

And yet today Ms Mirza is so close to Boris Johnson that he says she is one of the five women he most admires, along with Boudicca and his grandmother. She spent eight years working as his deputy mayor for culture when he was mayor of London, and defended him vigorously when he likened women wearing burqas to “bank robbers” and “letter boxes”, her ethnicity giving him useful cover. Mr Johnson likes to refer to her as his “nonsense detector”.

Ms Mirza’s rightward journey began after the RCP underwent an institutional and ideological meltdown in 2000 when *Living Marxism* was bankrupted in a libel trial. She was not the only party member to loosen her ideological moorings: Claire Fox established the Institute of Ideas and eventually became an MEP for the Brexit Party, while Ms Mirza became chief fundraiser for a new

centre-right think-tank, Policy Exchange (Px).

Ms Mirza says that the question of intellectual freedom was at the heart of her conversion to the right: “I realised very quickly that the main thing that the left was not in favour of was free speech—that there was an intolerance about different ideas and opinions.” Equally important is the idea that individuals are masters of their own fate. The left is increasingly preoccupied by the idea that people’s identity is fixed by the groups into which they are born, a notion which Ms Mirza’s trajectory challenges. But though her political journey is a long one, she has not left all of her past behind. The RCP and Mr Johnson’s Conservative Party have more in common than might at first appear.

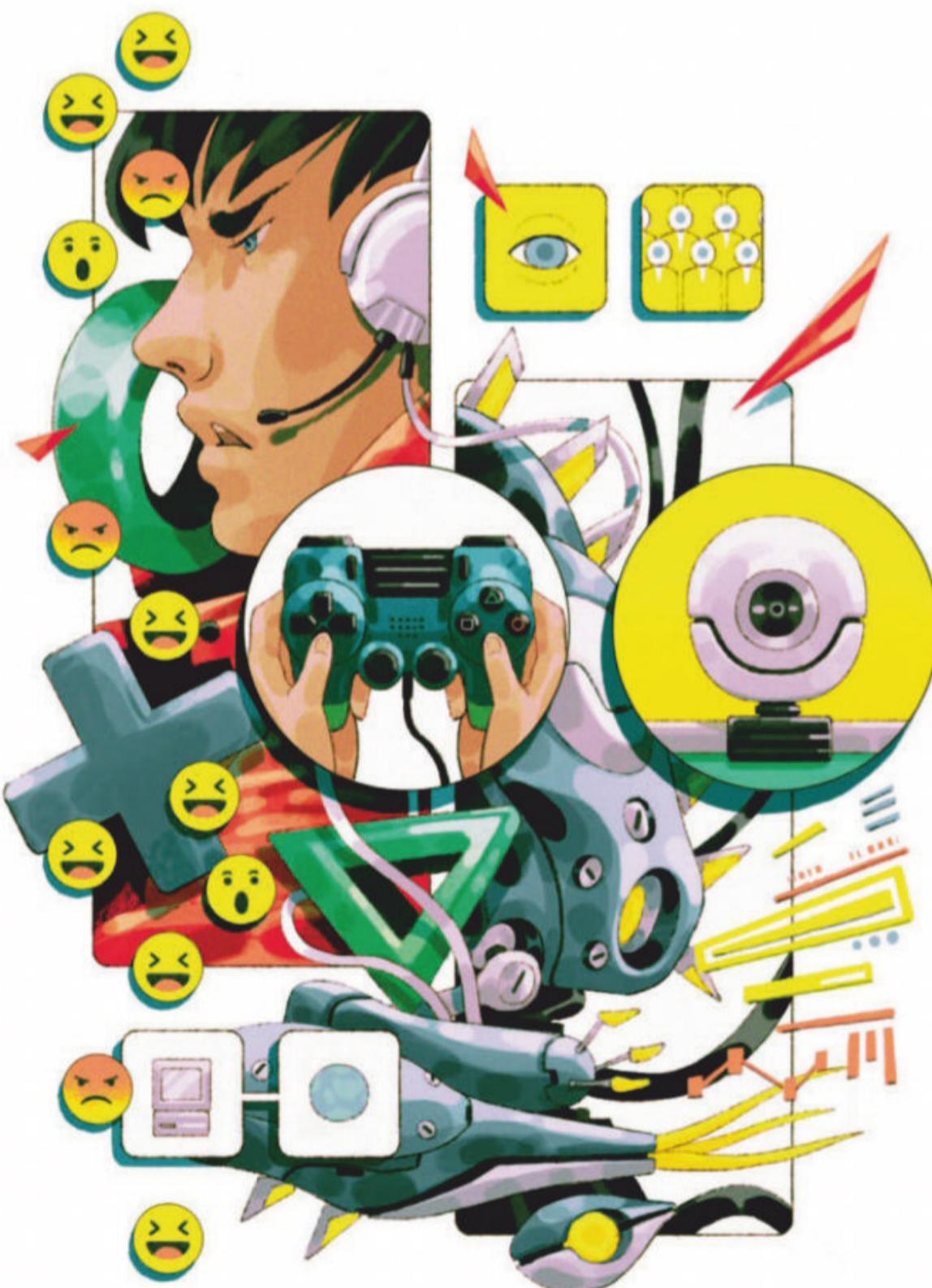
Ms Mirza’s arrival at Px coincided with two changes in the Conservative Party that turned her into a hot property. The first was the party’s growing interest in “the culture”. In the 1990s, the party was dominated by efficiency experts who wanted to apply cost-benefit analysis to everything and traditionalists who shared Sir John Major’s enthusiasm for “old maids cycling to Holy Communion through the morning mist”. Px decided that Conservatives needed to embrace Britain’s more diverse culture (one of the Px’s founders, Nick Boles, is gay) while pushing back against the left-wing idea that all minorities are victims. The second was the party’s growing appetite for revolution: the belief that the only way to protect the *ancien régime* from internal collapse is to purify it, often by borrowing the tools of revolutionaries. Michael Gove, one of Px’s other founders, liked to display posters of Lenin and Malcolm X on his office wall and to praise Mao Zedong’s Long March. He also acted as a long-term patron of Dominic Cummings, a man who can’t see an institution without giving it a good kicking.

The party’s cultural agenda and revolutionary turn are linked. Today’s radical Tories believe that the left’s grip on what Gramsci called the “instruments of cultural reproduction” is so tight that conservative values can be promoted only by revolutionary means. What’s the point of reforming the civil service if civil servants have no national pride? Or in reorganising education if professors and teachers tell pupils that they are victims of structural oppression? You need to apply electric-shock treatment to the prevailing mindset. Hence Mr Cummings’ war on “the blob”, formerly known as the establishment—the people at the centre of the country’s political and intellectual life who these days share a liberal internationalist world view. And hence the Brexiteers’ demand for a radical rupture from the European Union.

Ms Mirza is in the vanguard of this revolution. She rejects beliefs widely accepted in “the blob”. Her first publication for Px, “Culture Vultures”, argued that cultural institutions are short-changing working-class pupils by emphasising “relevance” rather than high culture. Her second, “Living Apart Together”, argued that multiculturalism fostered Islamist extremism by encouraging Muslims to see themselves as a separate group, and she rejects the idea that British society is structurally racist.

Ms Mirza brings a sharp and well-informed voice to an important area. But she also has a dangerous appetite for iconoclasm and polarising rhetoric, and her passionate individualism offers few policy solutions to the problems of racism and limited opportunities available to black people.

Britain’s debate about race is calmer than America’s. Politicians as different as Theresa May, a former prime minister, and David Lammy, an eloquent black Labour MP, agree on important points. Ms Mirza needs to temper her combative instincts with pragmatism, or risk turning it into another front in the culture war. ■



E-sports

Legends in lockdown

The pandemic has accelerated the growth of competitive video-gaming

MOTOR RACING has a long and chequered history of cheating, from illegal designs to the use of nitrous oxide to give cars a boost. On May 23rd, however, a new type emerged when a Formula E driver, Daniel Abt, was disqualified for substituting a teenage video-gamer to drive for him. The cheating happened not in a real car but in a virtual version of the sport, played on the official "Formula 1" video game, organised to keep fans amused while real racing was stopped for the pandemic. The races put car drivers up against professional vir-

tual racers, and were watched by hundreds of thousands of viewers on television as well as YouTube and Twitch, a live-streaming service owned by Amazon.

The virtual F1 contest was not the only example of athletes taking to a video-game version of their sport during the pandemic. In Britain Sky Sports, a broadcaster, showed matches of "FIFA", a popular football game, with players from the real-life Premier League. In America NASCAR races have been held virtually, too.

It may seem surprising that fans might

be satisfied by watching a virtual version of their sport. Yet video games have been quietly becoming more like traditional sports for some time. Covid-19, by keeping athletes indoors, has given a boost to "e-sports"—not just virtual versions of old sports, but entirely new online games, played competitively by professionals and watched by tens of millions of people.

Video games, now played often by perhaps a quarter of the world's population, are no longer just entertainment. Many games are more like something between a sport and a social network. And games have thrived under lockdown. The number of players logged into Steam, a popular gaming platform on PCs, reached record highs in late March, with 25m players logged in at one time. Nintendo's share price increased by 45% in the month from March 16th. Twitch saw its traffic jump by 50% from March to April.

Over the past decade the business model of games has changed radically. Revenue used to come from selling blockbuster single-player games, such as "Grand Theft Auto", on disks. Now the biggest-grossing games, such as "Fortnite" or "League of Legends", are given away free and updated constantly, with money made from in-game purchases. They are more social, more competitive and arguably more addictive. Some of them are becoming cultural phenomena in their own right. Executives hope they can persuade more people to watch them, buy gear and cheer teams as they do with traditional sports.

Take "League of Legends", perhaps the biggest e-sport in the world. It was launched in 2009 by Riot Games, an American firm now owned by Tencent, China's biggest tech firm. It is a complex strategy game, in which teams of five players command "heroes" in a battle to defeat each other. As many people play it regularly as play tennis; at any one time, 8m people may be online. It also supports a professional game that is, at least in terms of the number of players earning a living from it, also larger than tennis. The final of the League of Legends World Championship last year was watched live by 44m people. By comparison the Super Bowl, America's biggest live sporting event, was watched by roughly twice that.

Twelve professional leagues now span all regions of the globe except Africa, with 120 franchised teams and perhaps 1,000 professional players. Whereas tennis stars in the world's top 200 often struggle to make a living, "League of Legends" players in America are guaranteed a minimum salary of \$75,000. There, players are entitled to the same visas that other foreign athletes can get. The average salary is closer to \$400,000, says Chris Greeley of Riot Games. Lee Sang-hyeok, a Korean star,

known by his tag “Faker”, may be the highest-paid sportsman in his country.

Older sports are moving in. F1's e-sports competition existed before covid-19 brought it to television, as did eNASCAR races. Michael Jordan, a retired basketball star, is among those to have invested in Team Liquid, which plays in around a dozen e-sports. In November Manchester City, an English football club, unveiled its professional “FIFA” team—based in South Korea. Games of “Starcraft”, a strategy game, were first screened on cable tv there in the 1990s. Korean teenagers play, after school and before private tuition, in internet cafés, known as “PC bangs” (PC rooms).

Activision Blizzard, a publisher, runs leagues for “Call of Duty” and “Overwatch”, two first-person shooter games. These are modelled on conventional sports leagues, with teams that rent stadiums and play at home and away. Being based in a specific city enables teams to generate local support, as well as revenue from local sponsors, says Ben Spoont, the CEO of Misfits Gaming, which owns the Florida Mayhem “Overwatch” team.

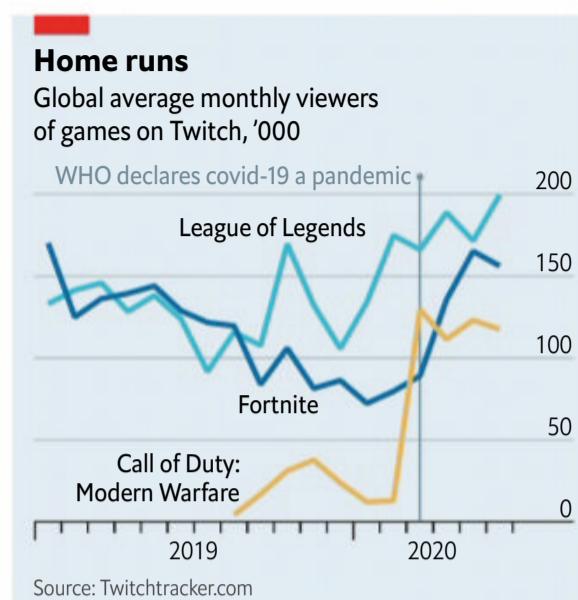
Crowding in

Last year Epic Games, the publisher of “Fortnite”, launched a “World Cup”. Anyone could apply to play: 40m did so. The finals filled 19,000 seats of the Arthur Ashe stadium in New York and \$30m of prize money was dished out to the winners.

Though South Korea remains a leader in e-sports, China is catching up. The island of Hainan, popular for its beach resorts, has set aside \$141m to subsidise international e-sports. In Hangzhou government money has been used to build an “e-sports town”, featuring a 56,000-square-foot (5,200-square-metre) arena, which is home to the Chinese “League of Legends” games, sponsored by Tencent. There are also shops, a training academy and an e-sports-themed hotel.

For a generation that lives chiefly online anyway, games are a means of socialising, like traditional sports. Thurston Jepps, a 12-year-old from London, mainly plays “Minecraft”, a free-roaming construction game, and “Overwatch”. He guesses that at least four-fifths of the time he spends playing is with friends online, rather than alone. Logging into his Xbox and seeing who is online is a little like going to the park to see who is around for a kick-about. “I don't often play single-player games unless I am kinda lonely,” he says. “Playing alone is very uncool.” Sometimes he and his friends play competitively, but often they just hang out and talk on voice-chat.

E-sports are different in some respects, however. Nobody owns the game of soccer or basketball. That is not true of e-sports. Publishers control the games. And grassroots do not exist in the same way. Children



are not encouraged to play video games at schools; most amateur teams exist only online; the pathway into playing professionally is unclear. Some teams are trying to change that. Mr Spoont's firm has held “block parties” to encourage parents to take the game seriously. His teams have scouts to recruit the best players internationally, much as other sports do. But he admits that there is a long way to go. “Parents are rightly anxious,” says Mr Spoont, who limits his six-year-old's screen time.

These games bring with them fears that do not apply to kicking a football around a pitch. Fewer people now worry about violent video games causing real-world violence, but newer concerns have arisen. Last year lawyers in Canada filed a suit on behalf of two sets of unidentified parents accusing Epic Games of bringing in psychologists to help make “Fortnite” more addictive. Players are encouraged to buy “battle passes” to customise their characters. For all that executives talk about media rights and sponsorship, much of the e-sports industry is cross-subsidised by



money made on in-game purchases. The prize money at the “Fortnite” World Cup came from Epic, which made \$1.8bn last year from microtransactions in the game.

The free-to-play model may bring in millions more players, but it also relies on a small minority spending extravagant sums on virtual uniforms. Britain's Department for Culture, Media and Sport has just launched a call for evidence to look at “loot boxes”—virtual purchases that some campaigners think are akin to gambling. The sale of loot boxes can create bills that go beyond what parents can afford. Last year Valve, the makers of “Counter-Strike”, another shooter game, banned the trading of virtual items which were being used to launder money.

Gambling is another worry. Just as it did with baseball in the 1920s, gambling on e-sports threatens to undo the professionalism of the league. “Counter-Strike”, “League of Legends” and “Overwatch” have all had match-fixing scandals. Some players have resorted to doping—Adderall, a stimulant prescribed to treat attention-deficit disorder, has been used to stay alert during long sessions.

And then there is politics. In the Gulf states and China governments have cracked down on political activism spread via video games. In Hong Kong “Animal Crossing”, a video game, stopped being sold in April after it was used by virtual protesters to mock Beijing.

Not just a game

As games evolve more into social networks, it is also harder to control the content that children see. And unlike the text on social networks such as Twitter and Facebook, voice chat is harder to moderate. Rodolfo Rosini, a technology entrepreneur in London, says he has no trouble with his son Finn making friends online, but worries about the “toxicity” of some games he and his children play. On games like “Overwatch”, which mostly have a young-adult audience, bullying is common. Racism is especially common on some American servers, he says. Encountering racist chants is also a risk of going to a football match—but it is easier for parents to avoid.

If anything checks the rise of e-sports competing with football or basketball for the world's attention, though, it may be that video games move too fast. “League of Legends” has been going for a decade; “Counter-Strike” is almost two decades old. That is an aeon for a video game still to be played. But compared with sports that were codified in the 19th century, it is short. The Overwatch League has struggled over the past year as some of its players have switched to “Valorant”, a new shooting game, or from playing in teams to streaming live on YouTube. In the end, there may simply be too many games to try. ■

**Advertising**

The new admen

A notoriously recession-prone and inefficient business is getting up to snuff

SOMBRE PIANO music? Check. Footage of deserted streets? Check. Maudlin voice-over lamenting “uncertain times”? Check. Seeking a television commercial fit to air amid a pandemic, brands from AT&T to Budweiser sent for their finest admen. All seemed to come up with the same cliché, proclaiming: “We’re in this together.”

This is a hard year for advertising, and not just on the creative front. Global ad spending is expected to be 10% lower than in 2019, according to GroupM, the world’s largest advertising firm by billings. The pandemic led advertisers to trim marketing budgets, deprived sellers of ad space, such as cinemas, of audiences, and left the admen with no work. Rishad Tobaccowala, an adviser to Publicis Groupe, the world’s third-biggest agency, likens it to an asteroid strike: “The Earth will go on. But some dinosaurs will die.”

As the dust settles, a reshaped advertis-

ing world is emerging. The buyers are lying low but look ready to splurge. Most of their money will for the first time go online. Offline-ad sellers, long in decline, and the creative agencies, whose middleman business is being pinched from both sides, face gradual extinction.

Despite a slump like no other, ad spending may fall by less this year than the 11.2% drop that followed the financial crisis in

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2009. And whereas most of the advertising dollars pulled during the recessions of 2001 and 2009 never came back, this time they may return to pre-pandemic levels as early as next year, believes MoffettNathanson, a research firm (see chart 1 on next page). How come? In a word: internet.

In 2001, when Google was a startup and Mark Zuckerberg in high school, digital advertising made up 5% of America’s ad mix (see chart 2). In 2010 advertisers spent twice as much on print and radio as online, even as people were spending more time with computers and smartphones than with magazines or radio. Eventually, companies that pulled radio and print commercials in these downturns realised they didn’t need them.

They are more reluctant to trim online adverts. Whereas old-school formats are taking their customary beating this year—print advertising will fall by 32%, expects MAGNA, a research arm of Interpublic, another big agency—digital will be flat, or even tick up. The internet draws in new advertisers and persuades existing ones to spend more. Smaller firms that cannot pay for pricey television clips can afford to experiment online. The 100 biggest advertisers on American network TV account for more than 70% of ad sales but in search and on Facebook the top 100’s share is 26% and ►

► 20%, respectively. Companies are also diverting their “below the line” marketing budgets—for things like direct mail and in-store promotions—online. The analytics offered by technology giants have encouraged buyers to keep running commercials until the return on investment shows signs of decline. And the growing number of firms that only exist on the internet cannot easily cut online ads. For them, digital advertising is “the new rent”, says Mark Shmulik of Bernstein, a research firm. Online retailers save on physical shopfronts but must maintain a visible virtual presence, recession or not.

Meanwhile, everyone is at the mercy of a near-duopoly. Two landlords, Google and Facebook, control 60% of worldwide digital-ad real estate. Investors long for Google to introduce ads to its Maps app. Their calls may grow louder as Google’s net advertising revenue in America is expected to fall by 4% this year, according to eMarketer, a research firm. Facebook could put more on Instagram. WhatsApp, also part of Facebook, is “the most under-monetised app in existence”, says Bernstein.

Matchmakers

There is one final—and vital—reason for the resilience of digital-ad spending. Whereas a decade ago it bore little relation to people’s actual media habits, today it is closely aligned with how they while away their time, notes Mary Meeker of Bond Capital, an investment firm (see chart 3).

Those habits’ further evolution will also favour digital ads. Mobile screens have overtaken TV as the biggest grabber of people’s attention. Even before the pandemic more Americans were cancelling cable-TV contracts each year. Now cash-strapped consumers are switching en masse to cheaper streaming services such as Netflix. In the next few years TV advertising, which has held up reasonably well, “will finally start to crack”, predicts MoffettNathanson.

As more ad dollars migrate online, an even bigger wedge will end up with Google and Facebook, which last year hoovered up 90% of new online ad spending, according to Bernstein. They are on track to increase their share of the worldwide digital-ad business to 70% or so within a few years, and still have ample capacity to display more ads (see chart 4).

If the flood of online ad spending continues, however, current digital-advertising space may reach “a point of saturation”, warns Andrew Lipsman of eMarketer. Ads will then seep to other digital media.

One is gaming, which has come a long way since 1993, when Electronic Arts showed pitch-side ads in its first “FIFA” football game. Last year King, which makes the “Candy Crush” games, took \$150m in net ad bookings. Today gaming firms make ads more engaging by, say, letting players

earn power-ups in exchange for watching a commercial. King claims that consumers are 18% more likely to remember an ad they see in “Candy Crush” than one viewed while streaming or using social media. Jonathan Stringfield, head of marketing at King’s parent company, Activision Blizzard, recalls how six or seven years ago he had to persuade sceptical advertisers that Facebook, where he worked at the time, was a serious place to market their brand. “This really feels like history repeating itself [with gaming],” he says.

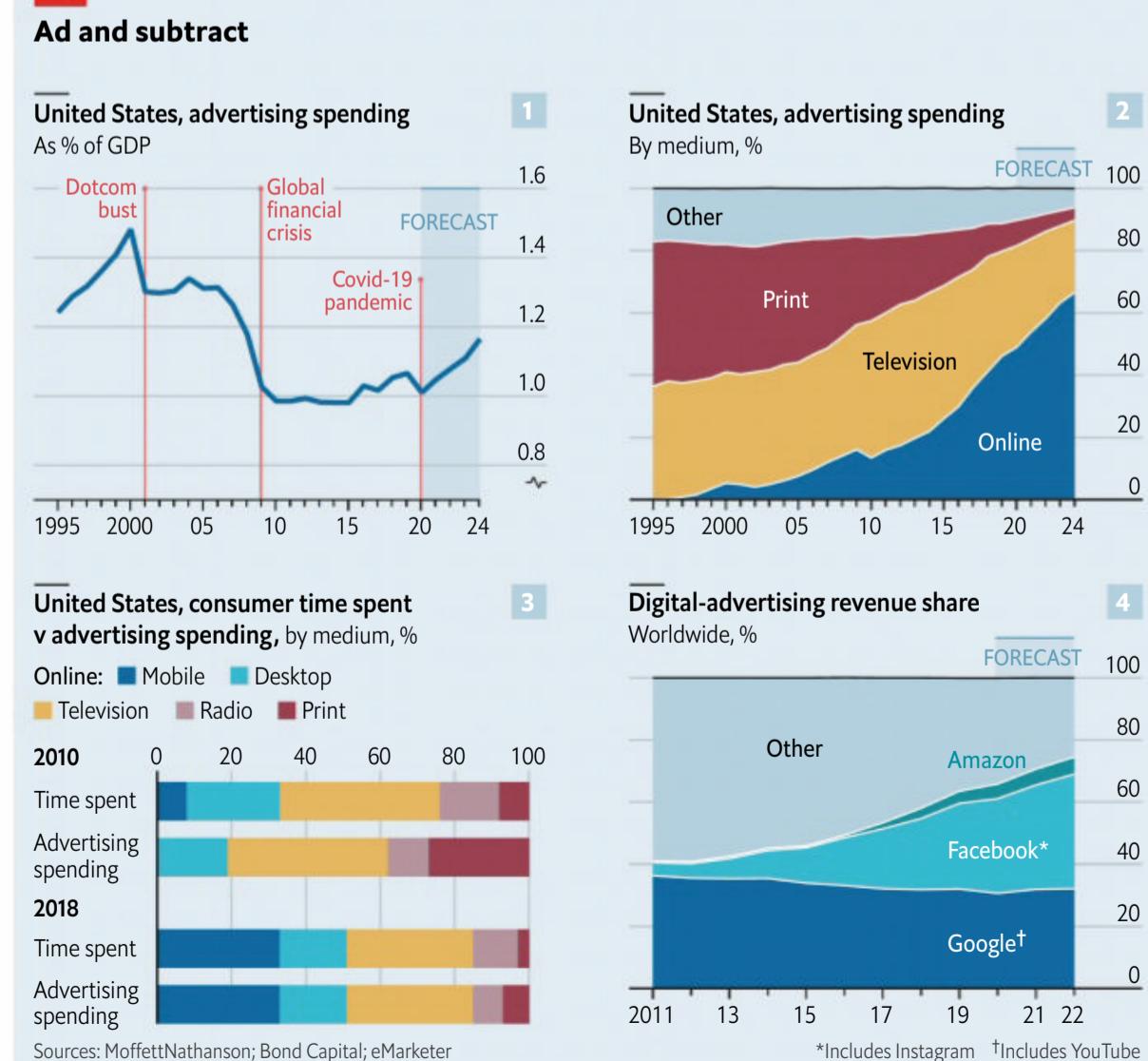
Video-streaming, if anything, looks ready for an even bigger bonanza. Netflix insists it will never run commercials. But other streamers, including Disney’s Hulu and NBCUniversal’s Peacock, are already supported by advertising. As the streaming wars heat up, subscription-based services may decide to sell commercials in order to fund their investment in new content.

Then there is Amazon. The e-empire is still a distant third in digital ads but growing fast. It has bitten off a chunk of Google’s search business: more than half of all online product searches now happen on Amazon.com. Its advertisements are particularly effective: shoppers come to the site ready to buy and its purchase-history data allow it to target consumers minutely. It has yet to run commercials on its Prime Video service. But if it does, advertising dollars will pour in, says Mr Lipsman. A viewer shown an ad could place an order on

Amazon without leaving the app—or, with voice control, lifting a finger. Mr Lipsman expects Amazon to sell commercials on Prime Video within two or three years. Its two big-tech rivals hope, with Facebook Shops and Google Shopping, to crack retail faster than it can expand in advertising.

The tech giants are stealing business from the admen, too, by making it easy for advertisers to create their own ads. In Britain only 13% of online search adverts and 44% of online display ads go through the five largest agencies, which handle most of TV advertising, according to Enders Analysis, a research firm. The share prices of the big five—WPP (which owns GroupM), Omnicom, Publicis, Interpublic and Dentsu—have been flat or sliding for at least three years; all have dived in the pandemic.

The agencies are fighting back, offering more data analytics and pitching themselves as broader brand consultancies. Since 2006 Publicis has spent \$15bn buying specialist firms in those areas. Mr Tobacco-wala estimates that only 35-40% of the group’s business is now conventional advertising. Consulting firms have expanded in the opposite direction; Accenture has acquired more than two dozen advertising agencies in the past ten years. Mr Tobacco-wala believes his industry can dodge the asteroid. “Agencies are like cockroaches and not like dinosaurs,” he says. “We scurry around, we figure out the new world.” Nowadays this counts as optimism. ■



Apple

Squeezing the pips

App developers are cross with the iPhone-maker

IF APPLE'S PR operation has a centrepiece, it is the Worldwide Developers Conference (wwdc). The covid-19 pandemic forced this year's jamboree, which began on June 22nd, online. Instead of the usual cheers and whistles at the keynote speech, viewers were treated to a slick pre-recorded video of Tim Cook, Apple's boss, listing the usual slew of announcements: a new version of the iPhone's operating system, new chips for Apple's desktops and laptops, plans to let iPhones unlock some BMW cars.

Perhaps that is just as well—for this year Mr Cook may have heard a few boos. A week before the wwdc the European Union had announced antitrust probes into Apple's App Store. That, in turn, came amid an outbreak of restiveness among the developers who provide software to Apple users, and at whom the wwdc is ostensibly aimed.

The EU's investigation follows complaints from Spotify, a Swedish music-streaming firm, Tile, which makes tracking devices, and Kobo, a maker of e-book readers. They are unhappy about rules that force app-makers that sell digital services on Apple devices to use Apple's own system for handling purchases made in their apps. Apple takes a cut of up to 30% from each such transaction. At the same time the rules limit firms' ability to guide users to other payment options (via their websites, for instance). Since the App Store is the only way to sell software to iPhone users, the firms allege that Apple's rules amount to an abuse of its control over the platform.

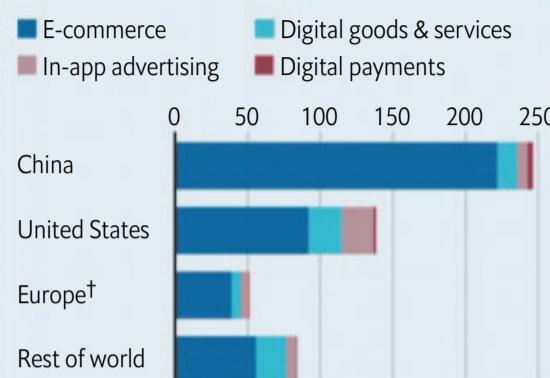
The grumpiness extends beyond firms that have formally complained. Just before the wwdc, Basecamp, which makes an email app called Hey, publicly fell out with Apple for the same reason. Match.com, an online-dating firm, says it is unfair that purveyors of digital services must fork over 30% to Apple, while other businesses, such as ride-hailing apps like Uber, do not have to. Other developers grouse in private, fearing reprisals if they speak up. Apple, for its part, has dismissed the complaints as mere moaning from companies keen to get a "free ride", though it did quietly make a few small concessions, such as promising to loosen restrictions on non-Apple web browsers, music-streaming apps and other software, and letting developers appeal when their products are said to violate App Store rules.

Apple's legal troubles extend beyond its payments systems, and beyond the EU. Be-

Orchard pickings

Apple, transactions enabled by the App Store*

2019 estimate, \$bn



*Value of products and services purchased and/or consumed via mobile apps installed from the App Store [†]Excludes Russia

Source: Analysis Group

sides charging for in-app transactions, the firm also takes a 30% cut from every sale of any app in the App Store. A court case in America alleging that the App Store's monopoly has driven up prices for consumers was given the green light to proceed by the Supreme Court last year. Attitudes towards the tech industry in general are hardening on both sides of the Atlantic. Google, Facebook and Amazon all face their own scrutiny from trustbusters. On June 18th Brad Smith, the president of Microsoft—which lost a landmark antitrust case in 2001—gave the pot a vigorous stir when he opined that Apple and Google exert far tighter control over smartphones than Microsoft ever had over desktop PCs.

Mr Cook and Sundar Pichai, who runs Google's corporate parent, Alphabet, may beg to differ—not least because each can claim to have to compete with the other. Either way, Apple may be tempted to carry on squeezing its developers even as regulatory storm clouds gather. Smartphones, which have powered the firm's transformation from also-ran to colossus over the past decade, have become a mature market. Sales of iPhones are stagnant. Those who already own a device replace it less frequently. And the number of people buying an iPhone for the first time has fallen by 63% from its peak in 2016, calculates Neil Cybart of Above Avalon, a tech-analysis firm.

Apple plans to replace revenue from selling phones with that from services. This includes proceeds from, among others, warranties and video-streaming, as well as App Store fees and commissions. A new study, financed by Apple, estimates the size of the global market for everything that the App Store has created, from food-delivery to online shopping, at \$519bn a year (see chart). One way to read this is as an advertisement for Apple's benevolence. Advertising and digital goods, from which the firm takes a cut, make up just a fifth of the total. On the other hand, the study also highlights just how much more digital terrain remains to be harvested. ■

Petrochemicals

The hole in the hedge

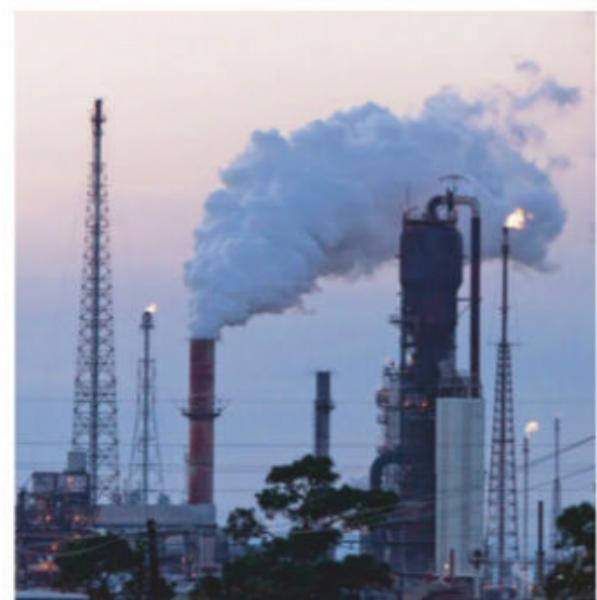
NEW YORK

Oil companies' favourite way to diversify isn't going to plan

OIL ANALYSTS debate the future of transport fuels. That of petrochemicals—used to make everything from plastic packaging to paint—has seemed unequivocally bright. The International Energy Agency (IEA), an industry forecaster, expects them to account for half the growth in oil demand from 2019 to 2025. Better yet, America's shale boom has furnished cheap feedstock in the form of natural gas. Exxon-Mobil is spending \$20bn on chemical and refining facilities along America's Gulf Coast, near Texas's Permian basin. Royal Dutch Shell is building a huge complex in Pennsylvania, atop the Marcellus shale formation—President Donald Trump has called it "one of the single biggest construction projects in the nation". Saudi Aramco, the largest oil firm of all, this month completed its \$69bn acquisition of a 70% stake in SABIC, Saudi Arabia's chemicals giant.

Covid-19 would seem to validate such moves. Use of petrol, diesel and jet fuel has plunged amid lockdowns but plastic packaging and medical supplies are in high demand. However, diversification that makes sense for any individual firm may prove risky for the industry as a whole.

On paper, the allure of petrochemicals remains strong. If the internal-combustion engine falls out of favour, the thinking goes, even sanctimonious environmentalists will still purchase polyester camping tents and synthetic sandals. The market increasingly punishes companies that invest in new drilling, so it seems only sensible to build "crackers", sprawling networks of pipes and furnaces that break the molecular bonds in ethane, a substance extracted ►



Dawn cracking in Texas

▶ from natural gas, to produce ethylene, which can then be woven into those sandals, camping gear and much else besides.

The trouble is that too many big oil companies are making the same bet. Last year the increase in ethylene capacity was 60% higher than the rise in ethylene demand, according to the IEA.

The subsequent decline in ethylene prices had little impact on companies' strategies. In November Bernstein, a research firm, tallied nearly \$40bn a year in planned capital spending on petrochemical facilities from Shell, ExxonMobil, Total,

Chevron Phillips Chemical, Aramco, Abu Dhabi's ADNOC, Russia's Gazprom and Rosneft, and China's Sinopec. All told, global ethylene capacity would rise by about 13m tonnes annually over the next few years, once again about 60% more than the annual rise in demand.

The pandemic does mean that oil companies have less cash for new projects. Cheap oil is also benefiting naphtha crackers in Asia, which produce chemicals from crude, and eroding the advantage of American ethane crackers, which rely on gas.

Even so, the coronavirus looks unlikely

to sap individual oil firms' enthusiasm for petrochemicals. Extra demand for single-use plastics during the pandemic has combined with lower appetite for recycled goods to lift ethylene prices a bit since April. Converting ethane to ethylene is still profitable, says Alan Gelder of Wood Mackenzie, an energy-research firm, "just not as profitable as some hoped". For many oil companies facing sceptical investors and an upstream business with uncertain short- and long-term prospects, petrochemicals have the dubious honour of being among their least bad options. ■

Bartleby Mid-year motivational magic

Buck Passer, cheerleader extraordinaire, updates his colleagues

DEAR COLLEAGUES and fellow humans, It has been a difficult first half of the year at Multinational United Subsidiary Holdings (MUSH). The pandemic has locked down some of our operations but not locked down our hearts. It has been great to keep in touch with you via our weekly Zoom meetings. I hope that many of you have appreciated the scenery in the background as I have dialled in from the company yacht.

By the way, apologies to those who weren't aware of my decision to start last week's session with ten minutes of silent meditation. Lots of you assumed that the sound system wasn't working and this led to a record level of complaints to our technology help desk. It also led to some unfortunate interjections by those who didn't realise they weren't muted; the head of the press office has been spoken to about his use of obscene language.

This crisis has emphasised the need to constantly readjust our collective mindset. In March the executive team showed our commitment to the company's future by taking a 20% cut in our base pay. My Buddhist guru says that the stockmarket rebound since then, which means that our share options are worth a lot more than they were in February, is simply karma in action. So, he says, is my ability to afford mindfulness sessions with him three times a week.

But there is no I in company, or indeed in MUSH. Our business success is not just down to me and the board. Thanks especially to those of you who are working at home while the offices are closed. You have been remarkably productive, as we know thanks to the keylogging software we downloaded onto your laptops in week one of the lockdown. If the company is a happy family, then think of me as your big brother.

Happily, flexible working creates more time for you to interact with the company. As CEO (which at MUSH has always stood for Cheerleader Extra-Ordinaire), I like to set an example by emailing my thoughts at 4am every morning and I can only imagine how grateful you must be to get some management guidance as soon as you wake up. While I can't be with you in the office, the pandemic has effectively allowed me to move into your spare room.

Thanks also to those of you who have devoted time to our cross-disciplinary task force, set up to define our corporate mission statement. Members of the task force have already agreed on several nouns that might fit the bill—"community" and "purpose" are strong candidates—and hope to start work on some verbs in the second half of the year, with adjectives being phased in during the early part of 2021. Once we have a draft, we will put it out to the wider community of stakeholders for consultation.

There is also good news on the environmental front. As the office lights, photocopiers and printers are no longer run-

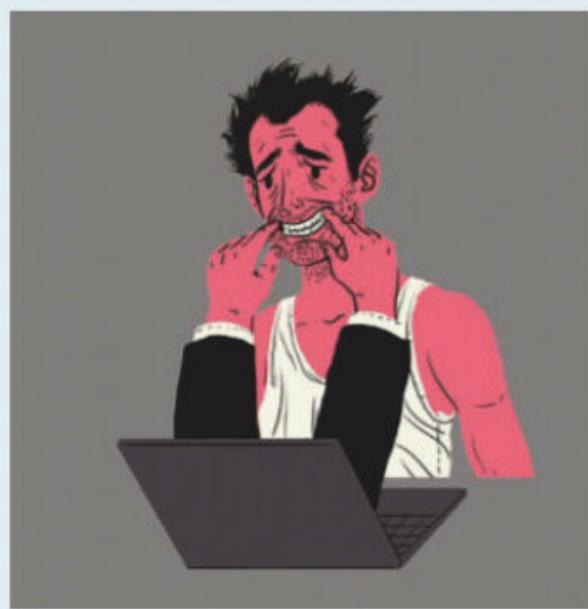
ning, the company has reduced the measure of carbon footprint it will record in its annual report. Of course, some of you will be using more power at home than before because you are now working there. But there are ways of offsetting this; I hear that, with enough scrubbing, it is possible to wash your clothes in the bath. We are all doing our bit; you will be thrilled to learn that the corporate yacht harnesses wind power.

For those of you without yachts, we are also changing our business travel policies when the lockdown ends. Seats in business class and premium economy have a bigger carbon footprint, so travel will be restricted to coach, or economy, class (except for board meetings and Davos, of course). Think of it as a chance to get even closer to some potential customers. And with so many big cities having bike-sharing schemes, trips by taxi will only be allowed in exceptional circumstances.

Sadly, some workers have exited our employment space in 2020. We are always sad to lose members of the MUSH community, but every crisis is an opportunity. One reason for the downsizing is that our new artificial-intelligence (AI) department is coming up with new ways to automate jobs. The great news is that our head of AI, D.R. Strangelove, thinks there is a lot more room for his department to expand over the next 12 months.

Finally, please disregard those newspaper stories that suggest MUSH might be vulnerable to a takeover by a rival group. The board is confident that, once investors get a detailed look at our accounts, a takeover will be the last thing on their minds.

Hugging you all from a socially acceptable distance,
Buck Passer, CEO



Dining...

Crash diet

PARIS

Lean times for catering groups

IF SOME WORKERS, after months spent at home, reluctantly concede that they are missing their colleagues, few will admit any longing for the office canteen. Companies that cook up meals for workers, pupils and hospital patients have been hit by covid-19 just as hard as restaurants (usually) open to the public. As employees trickle back to cafeterias, their prospects look no less mixed than those of other eateries.

What purveyors of catered grub lack in customer enthusiasm they make up for in size. The four big food-outsourcing firms—Compass Group in Britain, America's Aramark and Sodexo and Elior in France—together serve up perhaps 14bn meals a year. Of the nearly \$300bn spent on feeding workforces, student bodies and the like, roughly half is outsourced, and half of that goes to the multinationals. Growth was steady if not spectacular before covid-19, helped by acquisitions of local rivals.

Lockdowns have brought short-term pain and long-term uncertainty. Beyond offices, food outlets everywhere from schools to stadiums and conference centres are shut. A few usually reliable earners have dried up: hospital catering has slowed as beds were freed up for covid patients and visits banned. Even some prisoners, literally captive consumers, have been let out because of the pandemic. Compass, the biggest of the big four, said in May that half its 600,000 staff were on furlough.

Investors are also worried about what happens next, which is why the caterers' share prices have not rebounded with the rest of the stockmarket. Home-working has nibbled at growth and looks likely to continue doing so after the pandemic. In factories social distancing means a smaller workforce toiling for longer shifts, so fewer mouths to feed. University students, who along with pupils consume a quarter of catered meals, may also stay away from campuses as online courses gain steam.

Because of high fixed costs, losing a few diners can eat into margins (see chart). Operating profits are already wafer-thin: around 36 cents per meal, or roughly \$100 per site per day, in the case of Compass. Rising expenses, such as hiring more staff to enforce stricter cleaning protocols, will not help. Passing the costs on to clients is tricky in a recession. A slower economy will weigh on consumers; overpriced stadium hot dogs are an easy luxury to forgo in a downturn even once live sports return.



The caterers hope a recession might help them secure new clients. Firms that currently operate their own kitchens could cut costs by maybe a fifth by outsourcing to the professionals, who are at pains to explain that keeping kitchens up to complicated new hygiene standards is best left to them. The last recession, in 2008-09, saw a small uptick in contracts.

Still, many employers may instead conclude that those employees still turning up to work can be satiated with bulk deliveries from food apps like Uber Eats. They had been trying to eat the caterers' lunch even before the pandemic. ■

...and wining

Claret correction

A handy pretext to discount Bordeaux

AMID ECONOMIC gloom, a small solace for wine investors. Last year's excellent vintage of Bordeaux reds is selling for 15-30% less than the crop of 2018. Top labels retail for \$350-500 a bottle and the second tier for \$100-175, prices last seen in 2016.

The bargains will not sustain tipplers through lockdowns. Bordeaux estates sell wine two years before bottling it, via a system called *en primeur*. They set prices based on scores from critics, who taste wines as they mature in oak barrels, and are paid up front by middlemen. These *négociants* then sell wines to wholesalers and importers, who supply shops and restaurants.

The modern version of this network evolved 70 years ago, when wineries needed money and patient buyers snapped up cheap claret. By the 1990s leading estates had cash aplenty. But the system turned into an investment vehicle. Investors who bought wine *en primeur* each year between 2000 and 2008, and sold each vintage after

two years, made a return of 19% on average, according to Liv-ex, a trading platform.

Since then *en primeur* has seen booms and busts (see chart). The great years of 2009 and 2010 were sold just as Chinese consumers embraced fine wine, sending prices up. When China banned lavish gifts in 2012 investors were stuck with wine they literally could not give away. Western drinkers' taste shifted from Bordeaux's Cabernet Sauvignon and Merlot blends to rarer Pinot Noirs from Burgundy.

Although Bordeaux is abundant—the biggest names make up to 200,000 bottles a year of their top wine—inattentive farming and inconsistent weather have limited the stock of truly great wines. Until now. Mid-range estates have raised quality by investing in modern wineries and row-by-row vine monitoring. Climate change has helped grapes ripen. From 1980 to 2010 Bordeaux enjoyed two or three blockbuster vintages per decade. Critics' scores put four of the past five years at or near this level.

Since 2015 *en primeur* prices have gone up by 24% with each good crop. But a run of fine vintages also created a glut in *négociants*' cellars which they have struggled to offload at a reasonable mark-up. Between 2011 and 2018 they went from 239 days of inventory on average to 313 days; their net debt as a share of equity rose from 58% to 92%. "When intermediaries make a low margin, they're not interested in distributing your wine," says Stéphanie de Boüard-Rivoal of the Angélus estate.

So the case for a price cut by the estates was strong, and bolstered further by a new 25% American tariff on European wine. Except that discounting the 2019s would have left *négociants* and investors who ponied up last year feeling bitter. Covid-19 provided the perfect pretext. Saskia de Rothschild of Lafite Rothschild, the priciest big producer, speaks of "a good opportunity to reshuffle the cards". Having reset the system, most estates have also cut the amount they offer *en primeur*, to avert another glut. Just as well, for 2020 is shaping up to be yet another fine vintage in Bordeaux. ■

Be fearful when others are greedy

Bordeaux wine* *en primeur* futures



Schumpeter | Raising live music from the dead

Live-streaming will change rock 'n' roll for the better



A VISIT TO Britain's West Country on the eve of the summer solstice prompted your columnist to reflect on the serendipitous, socialist past of live music. The road passed by Worthy Farm, which 50 years ago hosted the first Glastonbury festival, costing £1 (\$2.50 at the time) a ticket. Back then its owner, Michael Eavis, a dairy farmer, had the mad idea of inviting the Kinks, whom he loved to listen to while milking, to headline a one-off gig, agreeing to pay them £500. When those rockers pulled out, he approached Marc Bolan of T. Rex. Bolan was driving through Somerset to play at Butlin's, a holiday camp. He agreed to stand in but almost withdrew when brambles threatened to scratch his velvet-lined car.

As Mr Eavis writes in a book, "Glastonbury 50", Bolan's bravura performance inspired him to continue the festival. On June 24th-28th it was due to celebrate its half-century with headliners including Kendrick Lamar and Diana Ross. But, as with almost all live music, it was halted by covid-19. Looking through the fields (and the Glastonbury rain) at the distant outline of the Pyramid stage, Schumpeter felt wistful. As a lad growing up in Somerset in the late 1970s, he would slip into the festival via the back garden of a friend's house, too cheap to buy tickets. But Mr Eavis was never in it for the dosh, anyway. When he failed to make the £500 to pay Bolan, he milked his cows hard for five months to settle the debt.

In the intervening years, the music industry has changed almost beyond recognition. Glam rockers have given way to punks, goths, ravers and rappers. Vinyl was overtaken by compact discs, then streaming. Recently Spotify and other platforms have given rise to a magic-mushrooming of "indie" artists, challenging, at last, the hegemony of the big-three record labels, Universal, Sony and Warner. As the money drained out of record sales in the 2000s, live music became the industry's reliable earner.

Yet live music has enjoyed little of the creative effervescence found elsewhere in the music business. Quite the opposite. It was already becoming more bombastic and less edgy. The pandemic has brought it to its knees. Bands are stuck at home, roadies are on the dole, and fans face an unfestive summer. But, as at Glastonbury with mud up to your knees, rock 'n' roll sparkles in times of gloom. Covid-19 may be the impetus live music needs to get out of a rut.

If one company gets the credit—and blame—for taking the so-

cialism out of rock 'n' roll, it is Live Nation. The Los Angeles-based firm helped pioneer the global consolidation of tour-promotion, venues and ticketing. With \$11.5bn in revenues last year, it is the world's largest live-entertainment company. In 2010 it bought Ticketmaster, the biggest ticketing agency. Sales have grown each year since. Its customers, 98m of them last year, dig deep to see their favourite acts. Live Nation says they are integral to its "flywheel": the more fans it has, the more tickets, beer, advertisements and other things it flogs, the more cash it makes, the more venues it buys, the more artists it attracts—and the more fans.

In the process its promotional power has grown. Alan Krueger, the late author of "Rockonomics", an economist's guide to the music industry, calculated that in America the biggest four promoters were responsible for more than two-thirds of concert revenues in 2017, up from less than a quarter in 1995. Ticket prices rose by 190% over a similar period, almost as much as college tuition. Consolidation may not fully explain the inflation; concerts generate wafer-thin margins for Live Nation, which suggests big artists have considerable clout, too. But in December America's Department of Justice extended an antitrust enforcement action against it for five-and-a-half years, prohibiting it from retaliating against concert venues that use a ticketing company other than Ticketmaster. In what Krueger called a "winner takes all" market, Live Nation has long been the victor.

Now its streak has stalled. Covid-19 has helped slash its market value from \$15bn to about \$10bn. (In April it got a \$500m investment from that bastion of rock 'n' roll, Saudi Arabia.) This year's concerts have been postponed until 2021 and some second-tier artists are likely to be offered less favourable terms to perform. Musicians, whose incomes have collapsed amid social distancing, are desperate for an alternative. Recession-struck fans, too, will pine for cheaper gigs.

Big Tech on tour

The response may prove the biggest jolt to live music in decades. From home quarantine or empty concert halls, artists—including classical musicians—are videotraining live performances straight to fans. What they started off doing for charity, some are now doing for profit. *Rolling Stone* magazine reported that BTS, a k-pop band, earned around \$20m from a virtual show for 750,000 fans on June 14th—more than Ed Sheeran gets for a gig. An avatar of Travis Scott, an American rapper, reached an audience of 27m via "Fortnite", a video game. Laura Marling, a British singer-songwriter, streamed a paid concert from an empty chapel in north London. She sold many times more seats online than exist at the venue.

Live-streaming will not replace live performance. "You will never have a mosh pit on Zoom," quips Crispin Hunt, former singer of Longpigs, a Britpop band from the 1990s. But it could generate competition, pitching streaming services like YouTube and Twitch (owned by Google and Amazon, respectively) against the likes of Live Nation. Russ Tannen of Dice, a ticketing agency, expects live-streaming to make music more like sport, enabling fans to see bands play live in a stadium, or with friends in a bar, or at home on TV—as they would Liverpool play football. Glastonbury is ahead of its time. It already streams live via the BBC. As Mr Tannen says: "Of the festivals, it is the World Cup." ■

Correction: Last week's column mistakenly said that June 4th was the 21st anniversary of the massacre around Tiananmen Square in Beijing. It was, of course, the 31st anniversary. Apologies.



Commercial property

Like a ton of bricks

Over the past 20 years the investment world has fallen in love with property. Is it the end of the affair?

THE SECOND week of March was a heart-breaking one for Will Beckett. The boss of Hawksmoor, a chain of steakhouses that employs 700 workers in Britain, had been days away from opening his first New York outpost. Instead government-imposed lockdowns forced him to close all his restaurants down. The City types that usually queue for its sizzling cuts were forced to go without. So too were Mr Beckett's landlords, after he told them he could not afford to pay rent for the second quarter. Most of his peers, he says, have also yet to square the bill. Restaurateurs are likely to miss their payments for the third quarter too.

Activity is gradually restarting. On June 23rd Boris Johnson, Britain's prime minister, said he would allow restaurants to reopen on July 4th. A moratorium on repossession, introduced in March, has been extended to September. Yet social distancing and warier, cash-strapped diners will squeeze eateries' margins. Jonathan Downey, who runs street-food markets in London, says the hospitality industry risks "rent apocalypse".

Most people probably have more sympathy for chefs and waiters than for landlords. But many do not realise that payments made to commercial landlords are increasingly channelled towards their own pension pots or insurance claims. The global stock of investible commercial property—hotels, shops, offices and ware-

houses—has quadrupled since 2000, to \$32trn (see chart 1). More than a third is owned by institutional investors, which piled in, lured by lucrative, solid returns.

Covid-19 has upended the impression of solidity. Most immediately, it has severely impaired tenants' ability to pay rent. It also raises questions about where shopping, work or leisure will happen once the crisis abates. Both are likely to prompt investors to become more discriminating. Some institutions may shift their funds away from riskier properties; other investors, meanwhile, might hunt for bargains, or seek to repurpose unfashionable stock.

The infatuation with commercial property began in earnest after the global financial crisis of 2007-09. Interest rates were cut to almost zero across much of the rich world, making it harder to generate the safe cash flows that pension funds and insurers need to meet future liabilities. "Core" property—often in desirable places and needing little refurbishment—typically produced secure annual returns in the high single digits to low teens, mostly in the form of contractual, often inflation-adjusted, rent payments (see chart 2 on next page). Buying property allows investors to park vast sums of money—from tens of millions to billions of dollars—which they can forget about for years (commercial leases often last a decade or more). And the returns have been less volatile in crises than those from public equities and commodities.

As a result both the numbers of institu-

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tional investors buying up property and the amounts they have allocated to it have risen since 2010 (see chart 3). A chunk is channelled through private property funds, which have raised \$1.6trn since 2008, according to Private Equity Real Estate, a publication. All together, institutions hold about \$6trn worth of assets privately, and \$5trn through listed vehicles. Property is typically financed by helpings of debt, which accounts for just under half of the market's value in America.

Investors' appetite has been met by a growing supply of assets. Since 2000, businesses ranging from burger chains to banks have spun out trillions of dollars of property they used to own to free up cash, often leasing it back immediately after divesting. Worldwide, offices and shops account for 61% of assets, though the share of commercial housing (ie, student housing and condominiums) and logistics assets has been rising.

Shop till you drop

By the start of this year there were signs of froth. Both offices and industrial properties (warehouses, chiefly) reached record prices at the turn of 2020. Retail-property prices had already peaked in 2018. Rent growth, however, had started to level off across most sectors. All this depressed yields, and returns had started to flag.

Then the pandemic hit. As investors panicked, stockmarkets tumbled and property markets froze. Transaction volumes in May were down by about a third in the West and two-fifths in Asia, according to Real Capital Analytics, a data firm. The proportion of offers that fell through before completion doubled in Europe and rose sevenfold in America. Indices tracking listed trusts that invest in commercial property (dubbed REITs) cratered in March. Part of that might have reflected an indiscriminate sell-off of shares by investors rather than an ebbing taste for property. But benchmarks have recovered only about half their losses.

Covid-19 jolts investors out of their complacency in two ways. First, swarms of tenants have simply stopped paying rent as the economy has reeled; the extent to which losses will persist is especially uncertain. Second, it may speed up long-term shifts within the sector: from shops, say, towards warehouses. Some types of property could become less bankable.

Start with delinquency. As lockdowns shuttered shops and businesses, rent collections collapsed. Less than half of all tenants in Britain paid rent on time at the end of March; a quarter of it was still due seven weeks later, says Remit Consulting, a research firm. Hotels have been worst hit: with borders closed and travel restricted, average occupancy fell from 70% before the pandemic to a low of 15% in early April. In



America, average revenue per room shrank by 84%, to \$16 per night, in April. Stand-alone shops and shopping malls have also suffered. Collection rates have fallen below 50% on both sides of the Atlantic.

Offices have proved sturdier. Firms that rent out co-working spaces on short-term leases have suffered. Other tenants, bound by decades-long leases, have continued to pay. Still, collection rates range between 57% in Britain and 90% in America. Late or missed rent payments in the double digits are hardly normal.

The resulting lost rental income is likely to have passed through to missed mortgage payments. Many banks report losses with a lag and with limited detail, but delinquency rates on commercial-mortgage-backed securities (CMBS)—bundles of loans sold on capital markets—provide a barometer. In America this month they exceeded levels seen during the financial crisis (see chart 4 on next page). A fifth of debt payments on shopping properties are late; a quarter of those due on “lodgings”—including student housing, vacant since universities closed—have also been skipped.

As activity resumes, properties are adapting, at some capital expense. Hotels are implementing contactless check-in, automatic doors and new cleaning routines. Offices are introducing temperature

checks and reducing pinch points at lifts. Brian Kingston, who runs the property arm of Brookfield, a private-equity firm, says it is reorganising mall layouts and car parks to make kerbside pickup easier.

But fresh outbreaks, or lingering fears of infection, could throttle the return to normality. Cash-poor and fearful, companies may limit business travel. Households may shun far-flung holidays and perhaps even shopping trips at home. That is bad news for hotels, restaurants and shops. Erin Stafford of DBRS Morningstar, a rating agency, reckons that, short of a fast recovery, half of America's independent restaurants may go under.

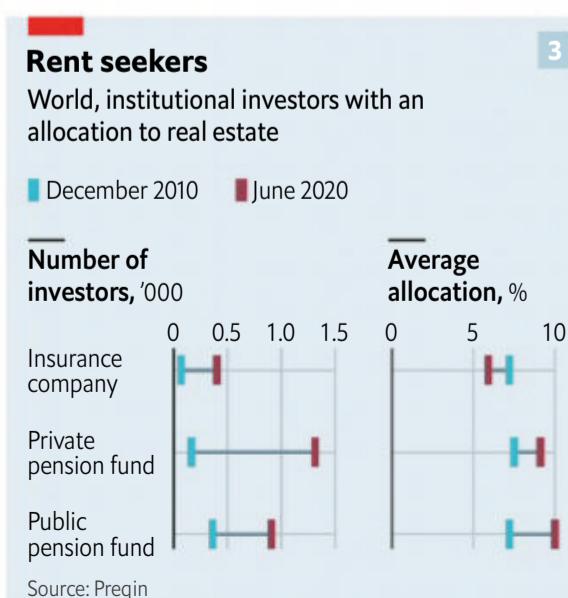
Such effects will be compounded as the vast support provided by governments is rolled back. Since March the authorities have propped up commercial tenants by paying employees' wages, topping up business cash reserves, legislating against eviction, backstopping banks and reducing credit constraints. Most measures are set to expire within months. Coface, a trade-credit insurer, expects insolvencies to jump by a third worldwide by 2021. Landlords could find that rental income dries up just as lenders, tolerant thus far, lose patience. Without progress on a vaccine or a treatment over the next three to six months, says Michael Van Konynenburg of Eastdil Secured, a bank, “we'll start to see more enforcement actions”.

Bricks and mortal

Further ahead, covid-19 will also make some types of commercial property less of a safe bet than others, by accelerating trends that were visible even before the coronavirus began to spread. The most obvious is the rise of online shopping. Since February the rich world has seen a surge in e-commerce activity. Many shoppers may choose to stick with the speed and convenience of click-and-deliver. In 2019 a record 9,300 bricks-and-mortar stores closed in America; Coresight Research, a data firm, says 15,000 could fold this year. JCPenney, a century-old department-store chain, went bust last month.

Shopping malls, particularly those in the sticks, could be in trouble. On top of the reduced rent caused by shop closures, the vacating of department stores, which often act as “anchor” tenants, may give other stores the right to pay lower rents, or even to cancel lease agreements, says Aditya Sanghvi of McKinsey, a consultancy. A third of America's 1,100 malls could end up being demolished. On June 23rd Intu, which owns shopping centres in Britain, appointed administrators.

The pandemic's effect on office space is less clear. Many workers may find that they quite like working from their bedrooms or kitchens. Others say they miss the camaraderie of the office. Social distancing may



also force firms to spread out more, reversing a trend that saw office space per employee fall by half in a decade. If the net effect were a reduction in rented space, it could cause havoc. Victor Calanog of Moody's, a rating agency, calculates that if tenants in New York gave up even 10% of their space over the next five years, it could result in a halving of rents sought on vacant properties.

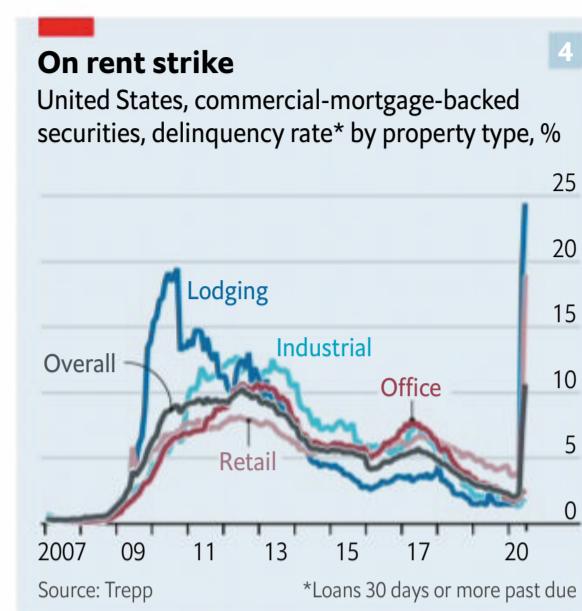
Meanwhile, the shift to remote shopping and working presents investment opportunities. Storage and distribution facilities remain geared towards industrial use rather than pick-and-pack. Brian Chinappi of Actis, a London-based private-equity firm, says the crisis has made it even hungrier for data centres, which it is now building in Asia and Africa.

The writing on the wall

Assessing the extent of potential losses from the crisis is hard. Britain's financial watchdog thinks uncertainty on values is so strong that it has forced listed funds to suspend redemptions. Analysts canvassed by *The Economist* reckon property values will fall by less than 20% overall this year, and rents by 5-10%. That compares with falls of 25% and 10-20%, respectively, in 2008-09. But a lot depends on how long rent suspensions last. MSCI, an index provider, estimates that assets subject to a six-month rent holiday and a recession could lose 37% of their worth. REIT prices suggest retail properties could have further to fall.

Figuring out who will bear those losses is even trickier. Laws differ as to whether creditors or equity holders should get preferred treatment, with the former favoured in Europe and the latter better protected in America. Most important, ownership of property assets is "a big, complicated web" that cannot easily be untangled by outsiders, says a consultant. Property vehicles are often owned by large asset managers that aggregate pension-fund money from all over the world. Despite improvements in disclosures, private funds remain opaque. Lenders are not always best-in-class either. "Try getting a French bank to reveal its property-type breakdown for commercial real-estate lending," says one analyst.

What seems clear is that banks are in a sounder position than during the financial crisis. Loan-to-value ratios were below 60% at the end of 2019, compared with 70% in 2007, so there is more equity to absorb drops in values, says Richard Bloxam of JLL, a property consultancy. Banks' capital buffers are bigger. In America CMBSS can catalyse credit crunches, because property lenders often use them as collateral to finance more loans. But these account for 15% of total property debt, down from over 50% in 2007. And they have held up well so far, thanks to purchases by the Federal Reserve. (The Fed's programme, which ex-



cludes newly issued CMBSS, expires on September 30th.)

A more diverse lending universe, though, means more entities are exposed to potential losses—including institutional investors, which have piled \$235bn into specialist private property-debt funds since 2008. Some funds are already struggling to repay the short-term debt they have raised against long-dated assets. Bigger shocks may well occur when batches of loans mature. Britain faces a £43bn (\$53bn) commercial-property refinancing wall in 2020-21; America's is worth \$2trn over the next five years.

Such losses notwithstanding, investors' love affair with commercial property is unlikely to be at an end. Interest rates in the rich world are close to zero, if not below it, and going nowhere. The spread between real-estate and government-bond yields is still alluring. Private-equity firms' mountains of dry powder—now worth a third of assets under management, the highest since 2010—will put a floor under values. But those who once blindly piled in are

likely to think twice. The result could be a more discerning investment approach. Institutional investors could become more cautious, favouring targets like housing blocks or prime offices that provide long-term secure income; more money seems to be chasing a shrinking pool of "defensive" assets, which could push prices up further and dampen yields. Some will hedge their bets. Alisa Mall of the Carnegie Corporation of New York, a \$3.5bn endowment with a 10.5% allocation to property, says it wants to add generalist managers who can invest across sectors and geographies to its portfolio of "sharpshooter" specialists.

Yet others, mostly private real-estate funds, hope to swoop on bargains (most public vehicles are trading below their underlying asset values). Craig Duffy of GLP, a private-equity firm based in Singapore with a vast portfolio of warehouses, says the firm has \$7bn of dry powder to deploy, and hopes to raise another \$8bn-9bn by the end of 2020. Some will focus on debt at a time when liquidity to stretched borrowers comes at a premium: Skardon Baker of Apollo, a firm that invests in distressed assets, says its European opportunistic fund has deployed €500m in the past 12 weeks.

The big winners will probably be giant firms like Brookfield, which closed a \$15bn fund last year, and Blackstone, which raised a record \$20.5bn vehicle a few months later. They have war-chests allowing them to command price discounts by buying bundles of assets at once. And they are among the few firms with the development skills needed to turn buildings round. Ever greater demand for their services may allow them to charge hefty fees, on ever bigger sums. Pension funds and insurers are becoming warier of commercial property. But for private-equity barons it remains a giant moneymaker. ■



Booking losses

Wirecard

The demise of a Wunderkind

BERLIN

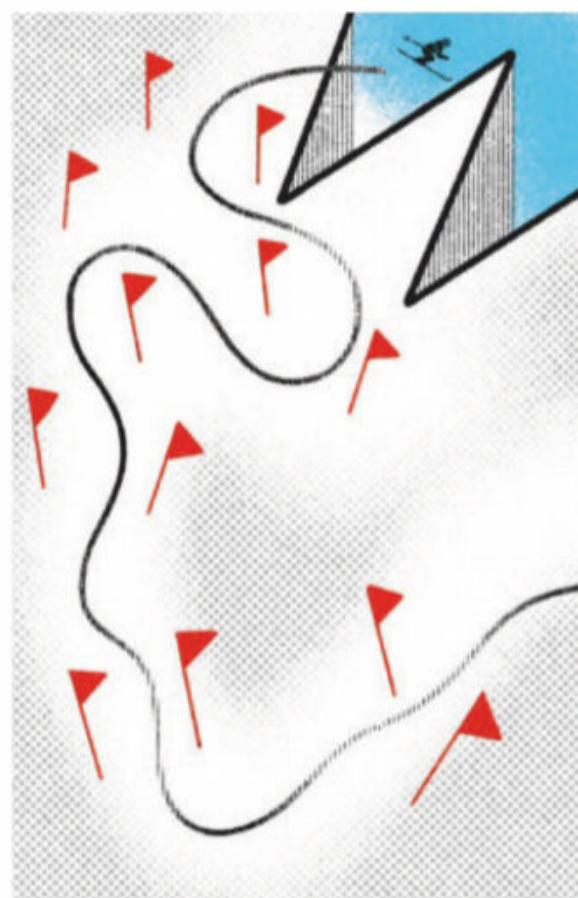
How a fintech star fooled most of the people all the time

WIRECARD'S SUCCESS was once regarded in Germany as rivalling that of SAP, a software-maker and the country's most valuable firm. No longer. Felix Hufeld, the head of BaFin, the financial regulator, was blunt: the accounting scandal at the payment-processing firm is a "complete disaster", and a "shame for Germany". "We would have expected such a situation anywhere in the world, but not in Germany," said Peter Altmaier, the economy minister. Mr Altmaier may have unwittingly put his finger on a key point—that everyone with influence over the firm, from board members to auditors and regulators, seems to have been complacent. In a darker version of events, the actions of some may have been complicit, even criminal.

On June 18th Wirecard's auditor for the past decade, EY, said that it could not find €1.9bn (\$2.1bn), amounting to nearly a quarter of the firm's balance-sheet, that was meant to be held in escrow accounts in the Philippines. Wirecard then withdrew its results for the last fiscal year and for this year's first quarter. Markus Braun, the chief executive, resigned. On June 22nd Wirecard admitted that the €1.9bn "probably does not exist". By then more than 80% of its market value had evaporated within three trading days. Later that day Mr Braun was arrested on suspicion of using fraudulent accounting techniques to inflate reported revenues. The next day he was released on bail. On June 25th Wirecard began insolvency proceedings.

It is a brutal fall from grace for a once-feted executive. After taking the helm in 2002 Mr Braun transformed the startup into a pioneer of processing digital payments, offering its services to porn sites and online-gambling sites, which other digital-payment platforms tended to shun. Over the years Wirecard attracted hundreds of thousands of new merchants, including Aldi and Lidl, supermarket chains, and several airlines. In 2006 it bought a bank and evolved into a full-service payment operation. In 2018 it knocked Commerzbank out of the DAX, causing a sensation in Germany. "It was an amazing growth story," recalls Wolfgang Donie, an analyst at Norddeutsche Landesbank who, like many other equity analysts, used to recommend the stock to his bank's clients. By June 18th Donie's notes to clients were warning: "hands off Wirecard shares!!!"

Neither equity analysts, asset manag-



ers, auditors nor regulators come out of the story well. All seem to have ignored numerous red flags. BaFin's record looks especially poor. In 2016 short-sellers released a report accusing Wirecard of corruption, fraud and weak money-laundering controls, which the company denied. In 2019 the *Financial Times* (FT) published an investigation into Wirecard's dubious accounting practices. In response BaFin filed a criminal complaint against two FT journalists and several short-sellers. It also took the unprecedented step of banning short-selling against Wirecard, citing risks to the economy and market stability.

On paper, BaFin is required to regulate only Wirecard's banking arm. But it is also meant to make sure that the boards of firms listed on the DAX are up to the job. The members of both Wirecard's management and its supervisory board lacked the competence to lead a multinational tech firm, says Bernd Ziesemer, chairman of the Cologne School of Journalists. None sat on the boards of any other firms listed on the DAX. Three of the four members of the management board came from Austria, like Mr Braun, inviting comparisons of board meetings to a *Brettljause*, a hearty Austrian snack break with mates on an Alpine peak.

Germany will need to rethink its piece-meal regulatory system, particularly if it wants Frankfurt to lure business from London. The bulk of Wirecard's business, bizarrely, is regulated by the Upper Bavarian district government, which was woefully ill-suited to oversee a global fintech firm. After claiming that the regulators "worked very hard and did their job", Olaf Scholz, the finance minister, has promised to consider changing the rules. That is surely only the start of the soul-searching. ■

Race and economics

Gains to diversification

WASHINGTON, DC

Economists grapple with their race problem

IN JANUARY 1970 a group of black economists wrote a letter to the American Economic Association (AEA). They criticised colleagues who ignored discrimination in the profession and paid no heed to racial inequality in their own research. Just over half a century later, similar complaints have resurfaced. This time the AEA seems to be listening. On June 5th it issued a statement saying that "we have only begun to understand racism and its impact on our profession and our discipline."

Openness to more diverse groups of people and ideas should enhance the profession's understanding of the world. Barriers to entry are not only unfair, they could undermine healthy competition in the marketplace for ideas. And a better grasp of, say, the huge racial gaps in income and wealth in America seems essential to a profession that studies who gets what.

The complaint in 1970 led to attempts to increase the number of black economists, and the creation of the National Economic Association, which supports minorities. But progress has been disappointing. In 2017-18 just 2% of assistant professors in prestigious universities were black. Some departments have never had one.

The killing of George Floyd and the ensuing protests have led to a flurry of anecdotes suggesting that a hostile environment might be putting some people off the profession. A survey of economists in 2019 found that 62% of black women and 43% of black men felt they had experienced racial or gender discrimination, compared with 6% of white men. An accusation of racist comments in the classroom led to the suspension of Harald Uhlig, a professor at the University of Chicago, on June 12th. He was reinstated on the 22nd after an internal investigation found no reason to proceed.

All this has renewed calls for more black economists. By June 24th the Sadie Collective, a new group trying to encourage more black women into the subject, had gathered around 2,000 signatures calling for measures such as more cash for diversity initiatives. Experienced hands are more cynical. Rhonda Sharpe of the Women's Institute for Science, Equity and Race says that "when individuals change, the profession will change."

Another charge against the profession concerns its study of race. Economists have not ignored the topic: 3% of working papers published by the National Bureau of

Economic Research since 1980 mentioned “race”, “racism”, “racial”, “black” or “African-American” in the title or abstract. But the AEA’s statement tacitly acknowledges a shortcoming: it pointed people not to research in its own elite journals, but to the *Review of Black Political Economy*, which is neither well-cited nor widely read.

More mainstream research has come under attack for treating race too narrowly, in a way that leaves important context unexplored. When studying discrimination, for example, economists often ask only whether it is motivated by animus (“taste-

based”), or by a lack of information that forces people to rely on stereotypes (“statistical discrimination”), without asking why such tastes and stereotypes exist in the first place. Some evidence suggests that economists think too narrowly within that framework. A study by J. Aislinn Bohren of the University of Pennsylvania, Kareem Haggag and Alex Imas of Carnegie Mellon University and Devin Pope of the University of Chicago found that, of 105 papers in top journals testing for discrimination between 1990 and 2018, only 11% discussed the possibility that statistical discrimination

might be based on odious beliefs.

A solution would be to acknowledge rather than sideline existing research that delves into the cultural context. Encouraging scholars working in the area would help. Dania Francis of the University of Massachusetts Boston was told that as a black person doing research on race (“me-search”) she would be taken less seriously. For Lisa Cook, a member of the AEA’s executive committee, the very fact that it issued a statement is progress. But avoiding another conversation in 50 years’ time will require more than that. ■

Buttonwood A long shadow

Investing would be very different if the dotcom boom and bust had never happened

THERE IS A lovely quotation at the start of “Security Analysis”, a canonical text by Benjamin Graham and David Dodd published in 1934. “Many shall be restored that now are fallen and many shall fall that are now in honour.” It is by Horace, a Roman poet who knew all about reversals of fortune, having lived through Rome’s bloody transition from republic to empire. Two millennia later, amid the ruins of the dotcom mania, Warren Buffett was moved to recall Horace’s words. “My appreciation for what they say about business and investments continues to grow,” he wrote.

It is now 20 years since the NASDAQ, a tech-heavy index of shares, reached a peak after a frenzied rise during the late 1990s. The apex, on March 10th 2000, marked the end of the internet bubble. The bust that followed was a triumphant vindication of the sober valuation methods pioneered by Graham and Dodd and popularised by Mr Buffett. True value is a low price relative to some financial measure of intrinsic worth—recent profits, say, or the book value of assets. Dotcom-era analysts, if they bothered at all, used flakier metrics: “eyeballs”, “engagement” or simply “the opportunity”.

Perhaps you can have too much sobriety. For the past decade buying “value” stocks has been an unrewarding strategy. America’s stockmarket is dominated by a handful of technology companies, whose stocks trade on steep multiples of earnings and book value. The current recession has not changed matters. The fallen have not been restored. If anything, those in honour have more of it. Value investors, meanwhile, are unmoved. This begs a heretical thought. If the dotcom boom and bust had not happened, would value investing have quite the same moral authority today?

In posing such a question, you run into an immediate problem. Value investing is an austere creed. It is as much about moral fibre as business analysis. Value investors hope to be rewarded for enduring the pain of waiting for their strategy to come good. Most investors don’t like to be wrong for so long, to hold the unfashionable stocks and to spurn the faddish ones. But value investing is a faith that is sustained by the scepticism of non-believers. Indeed their scorn is in large part the point of it. For its adherents, vindication will surely come. It has before, even when all seemed lost. That makes rebutting its tenets hard.

The legacy of the dotcom bust makes it all the more difficult. So as a thought experiment let’s imagine, for a moment, that the late 1990s bubble never happened. Value investing would have lacked its most spectacular vindication. Its hold on the investment world would be less secure. The use of forward-looking scenarios to judge the long-term prospects, and thus the worth, of a fast-growing company could not be so easily decried as foolish. The business of stock-picking would be

much more about engaging with, and understanding, the peculiarities of companies rather than an arms-length selection based on financial characteristics. And without the frauds and scandals of the late 1990s, the public markets might have remained a welcoming place for small, early-stage firms. More start-ups might in turn have tailored themselves for an IPO rather than for a sale to an incumbent technology giant.

The value creed says rapid growth must eventually peter out. Instead the big business successes of the past decade—Google, Amazon and Facebook in America; Alibaba and Tencent in China—have grown to a size that was not widely predicted. Companies of this kind are characterised by network effects. The more people use them, the more useful they are to other customers. They enjoy increasing returns to scale. The bigger they get, the cheaper it is to serve another customer. Dotcom-era gurus banged on about the power of network effects and scale economies. There is more to building an enduring company, though. A business also needs something unique, a distinctive culture or a superior technology, that cannot be replicated by others. Picking winners is not easy; nor is paying a price for them commensurate with their chances of success. But screening for stocks with a low price-to-fundamentals is more likely to select businesses whose best times are behind them than it is to identify future success.

In the late 1990s ideas about fundamental value went by the wayside. A bubble blew up. It then burst dramatically. The bust was a painful lesson for investors. But perhaps some lessons were learnt a little too well. “When fools shun one set of faults”, wrote Horace, “they run into the opposite one.”



Chinese manufacturing

The world's factory

SHANGHAI

Meet the planet's most prodigious exporters. They have some new tricks

NORMALLY 200,000 buyers, hailing from just about every country, would have flocked to the Canton Fair, the world's biggest trade show. This year, because of the pandemic, it was conducted entirely online, running for ten days and ending on June 24th. Although no substitute for meetings in the flesh, the virtual fair was testament to China's manufacturing muscle. Some 25,000 exhibitors hosted live-streams, often from their factories, chatting to anyone interested in their products.

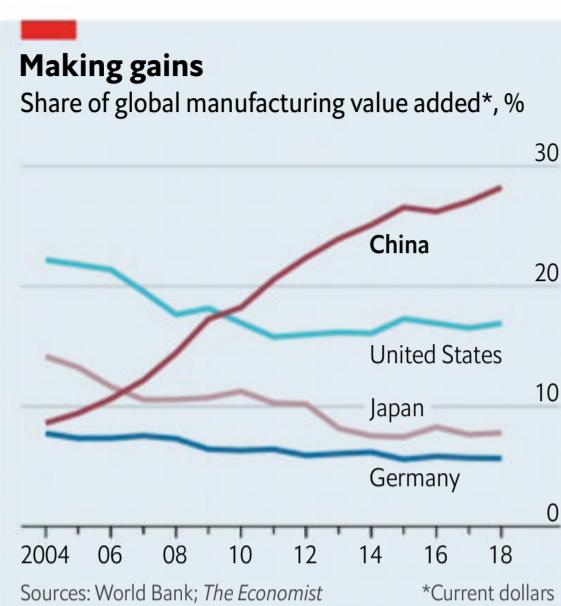
Among them Wen Li, a young product manager, demonstrated Z-Green's self-propelled lawnmowers, to the background clang of the shop floor. Sherry, a manager with My Dinosaurs, stepped around fake bones as she introduced her company's animatronic beasts, pausing to insert a tongue into the gaping mouth of a brachiosaurus. Joy, a saleswoman with PK Cell, sat behind an array of rechargeable lithium batteries, explaining the workings of the firm's 23 automated production lines.

On it went. There were companies making motorbikes and electric cars, coffee machines and milk-frothers, dog toys and hummingbird-feeders. Even if the live-streams were amateurish, in halting English with poor lighting, the overall effect was powerful. Here, the fair proclaimed, is China: home to 28% of the world's manufacturing—nearly as much as America, Japan and Germany combined—and, despite the coronavirus, still going strong.

China has two big advantages as a manufacturing power. First, its industrial base has unparalleled depth and has only grown more competitive. In 2005, 26% of the value of China's exports was added abroad; by 2016 that was down to 17%, according to the OECD. In other words, more of the bits and bobs that end up in Chinese gadgets are themselves made in China.

The second advantage is China's own vast market. This is why many American firms want the Trump administration to go only so far in its tussles with China, applying enough pressure to free up space for them, but not so much as to kill their opportunities. By one measure global firms look even more wedded to China, despite the trade war: over the past 18 months the value of foreign mergers and acquisitions in China reached its highest in a decade, reckons Rhodium Group, a research firm.

As is to be expected, the global downturn is hurting Chinese firms. Their ex-



ports fell by 8% in the first five months of 2020 compared with a year earlier. Yet they are in better shape than most elsewhere, thanks to the country's success in slowing the virus. China's earlier resumption of industrial activity has allowed exporters to gain market share. In Japan, Chinese goods accounted for a record 30% of imports in May. In Europe, they made up 24% of imports in April, also a record.

Yet this may be the high-water mark. Other countries are only too well aware of China's manufacturing prowess—and that it leaves them vulnerable to critical shortages. That point hit home earlier this year, as they scrambled to buy ventilators and masks from China. From India to Taiwan, governments are offering loans, land and other perks to lure investors.

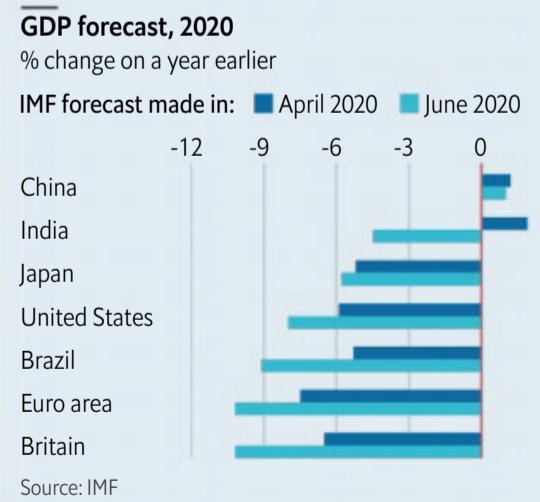
Such inducements have rarely worked in the past, but they stand a better chance now, for three reasons. First, China's climb

up the value chain is squeezing out low-end firms. Many garment-makers have already shifted, in part, to South-East Asia. Second, tensions with America have left companies twitchy. Apple still makes most of its iPhones in China, but has encouraged its suppliers to expand elsewhere. Third, the rolling shutdowns of factories during the pandemic have underscored the danger of being over-exposed to any one country.

Evidence of the shifting tide can be found in surveys of big companies conducted by UBS, a bank. Among its 1,000-plus respondents, 76% of firms from America, 85% from north Asia (eg, Japan and South Korea) and even 60% from China say they have already moved or plan to move some production away from China. Keith Parker of UBS estimates that companies might shift between 20% and 30% of their Chinese manufacturing capacity. That will not happen overnight, but it will chip away at China's dominance in manufacturing.

In the meantime, Chinese businesses retain a well-honed ability to adapt. Take Sowind, a maker of household-cleaning tools—one of the companies at the virtual Canton Fair. It was promoting motion-activated, battery-powered soap dispensers for home use. In a live-stream, Ivy, a young saleswoman, tailored her pitch to the grim viral reality: "You don't need to touch the soap dispenser, so you can avoid cross-infections." Contacted after her broadcast, Ivy said that customers in Europe and America were buying thousands. As for the online migration of the world's biggest trade show, she was upbeat. "It takes time to get used to a new technique, but it's gone better than I had expected." ■

From bad to worse



Doom and zoom

On June 24th the IMF said that the economic slump caused by the covid-19 pandemic would be worse than it forecast in April, and that governments would be left more indebted as a result. The fund thinks that advanced economies' combined GDP at the end of 2021 will still be lower than it was in the first quarter of 2019. But it warned of an unusual degree of uncertainty surrounding the numbers, which assume persistent social distancing, lower productivity and widespread economic scarring. The fund also pointed out the "disconnect" between this grim outlook and high asset prices.

Free exchange | The three-year nap

Some of India's states are temporarily relaxing labour laws. Will the reforms work?



HAS ANY country ever lost as many jobs as India shed in April? After the government imposed a strict lockdown on March 24th, employment fell by 114m in the following month, according to the Centre for Monitoring Indian Economy, a research firm. The number, it said, was “mind-boggling”. It has also been mind-concentrating. Although employment has begun to recover, the need to create jobs has prompted several Indian states to suspend many of the country’s compendious labour regulations. These strictures include over 40 central laws and about 100 state ones dictating how employers should pay workers, contribute to their pensions, guard them from injury, settle their grievances and lay them off.

The Factories Act of 1948, for example, aims to safeguard workers’ health, safety and comfort in any plant with ten or more employees. It is quaintly fastidious. In some states, the rules prescribe the frequency of whitewashing latrines (every four months) and the size of bucket required to fight fires (nine litres). Other rules elaborate on the specifications of spittoons (galvanised iron, with conical funnels, on stands that are three-feet high).

This kind of overbearing regulation is one reason why “India grows at night, while the government sleeps”, according to an adage popularised by Gurcharan Das, an author. Reform has been incremental and piecemeal. In nine states, for example, manufacturing firms with fewer than 300 employees can now lay workers off without the government’s permission (the previous threshold was 100). A new labour code passed last year consolidated four laws on wages. Three similar codes were making their way through parliament before covid-19 struck.

The urgency of the pandemic has turned this slow march of reform into a “chaotic” scramble, says Aditya Bhattacharjea of the Delhi School of Economics. Nine states are trying to raise limits on working hours (to as many as 72 hours a week in some cases). Three big states are seeking presidential approval for more sweeping measures. Gujarat hopes to exempt new firms from most labour laws for 1,200 days; Uttar Pradesh wants to exempt all manufacturers for three years. In Madhya Pradesh new firms will be spared many provisions of the Industrial Disputes Act, including its ban on union-busting, for 1,000 days. And most small firms (with up to 50 workers) will be able to hire an independent auditor to certify

their compliance with the Factories Act, without having to endure a government inspection.

These three states make up about a quarter of India’s labour force. Amitabh Kant, the head of NITI Aayog, a government think-tank, hailed the proposals as “one of the boldest and bravest initiatives since the reforms of 1991”. He credited the pandemic with “eliminating red tapism, inspector raj and all that was antiquated in our labour laws”. The reforms were also one reason S&P, a rating agency, did not downgrade India’s rating to junk this month.

Will the reforms work, though? Sceptics raise an obvious objection. If India’s workers are so well protected by the country’s cumbersome laws, why did over 100m lose their jobs in a single month? This misses the point: it is because India’s labour laws are so onerous that firms try to escape them by remaining small and shadowy. (Firms are also hiring more people through temporary-employment agencies, many of which disappeared during the lockdown, leaving their workers in the lurch.) In 2015, Urmila Chatterjee of the World Bank and Ravi Kanbur of Cornell University found that almost 10% of manufacturing employees worked for firms that should have registered themselves under the Factories Act but had not. And about 65% worked for tiny firms that fall outside the act’s scope. Jobs are protected on paper but precarious in practice; the paperwork may contribute to the precariousness.

More recent work by Amrit Amirapu of the University of Kent and Michael Gechter of Pennsylvania State University shows that there are surprisingly few firms with ten or more employees, given the number with nine or fewer. They infer that becoming big enough to fall under the purview of the Factories Act adds almost 35% to a firm’s costs per worker. But this national average masks wide variation. In some states, such as Bihar, the cost is as much as 69%. Elsewhere it is negligible. This is not because states differ greatly in their laws, but because they vary in their lawlessness. In corrupt states, dishonest inspectors demand bribes, forcing firms to stay inconspicuous. “Every business unit in Karnataka faces this agony,” complained one entrepreneur on ipaidabribe.com in 2016.

An inspector calls

The answer, argue Mr Amirapu and Vidhya Soundararajan of the Indian Institute of Management Bangalore, is not to erase labour protections but to prevent their abuse. Even stalwart reformers like Arvind Panagariya of Columbia University believe the recent suspensions are too sweeping—they “violate the spirit of a modern-day democratic state”—and too short-lived. “No entrepreneur worth her salt will invest [in a sizeable enterprise] if she faces the prospect of the current labour-law regime returning,” he wrote in the *Times of India*, a newspaper.

Mr Bhattacharjea thinks the new labour codes in parliament might strike a better balance between flexibility and security. He also welcomes procedural reforms, such as computer-generated schedules that remove an inspector’s discretion about which factories to visit and when to file their reports. That makes it harder for them to prey on a factory or delay approval until a bribe is paid. Such a system has already been implemented by the central government and several states. (Coincidentally, the number of labour-related complaints on ipaidabribe.com has tapered off.)

The number of state labour inspectors grew by 18% between 2017 and 2019. If employment in the rest of the economy is to rise as quickly, these inspectors will have to enforce leaner, simpler rules with more computer-aided honesty than in the past. The government cannot afford to sleep when the economy is comatose. ■



Disease surveillance

Pandemic-proofing the planet

New diseases are inevitable. Ensuing global calamities do not have to be

IN FEBRUARY 2018 a panel of experts convened by the World Health Organisation (WHO) put together a list of diseases that posed big public-health risks but for which there were few or no countermeasures. It featured various well-recognised threats, including Ebola, SARS, Zika and Rift Valley fever. But it also included "Disease X".

This illness, caused by a pathogen never before seen in humans, would, the panel said, emerge from animals somewhere in a part of the world where people had encroached on wildlife habitats. It would be more deadly than seasonal influenza but would spread just as easily between people. By hitching rides on travel and trade networks, it would journey beyond its continent of origin within weeks of its emergence. It would cause the world's next big pandemic, and leave economic and social devastation in its wake.

Indeed.

Less than two years after the report was

published Disease X turned up. It began late last year in Wuhan, China, and the wider world became aware of it in January. It has now infected nearly 10m people and killed almost 500,000 of them. That death toll is also likely to reach seven figures before things are over. For Disease X now has a name: covid-19.

I told you so

Though perhaps the loudest, the WHO's was not the only warning that something like this might happen. Moreover, some of the prophets, such as Peter Daszak, a disease ecologist who is head of an independent research organisation called the EcoHealth Alliance, specifically focused on the risk posed by bat-borne coronaviruses, as SARS-cov-2, the cause of covid-19, has turned out to be. And the point of issuing those warnings was preparedness. With the correct systems in place a potential pandemic, spotted early, might be nipped in the bud.

Instead, the world's response to the new illness has been similar to its response to SARS in 2002 and, after that, to H5N1 avian influenza in 2005. This is to move into a costly panic mode intended to slow the spread of the disease while scientists race to develop a vaccine. "This," as Dr Daszak, observes wryly, "is not a plan."

To see Disease X simply as a warning about covid-19 that the world ignored is, though, to miss the point that the WHO panel was making. Disease X was also a warning about Disease Y, and after it Disease Z. It was a warning about aspects of modern life that encourage the spread of previously unknown pathogens like SARS-cov-2. As long as these matters are not addressed, the risk will remain of further zoonotic outbreaks, in which a pathogen passes from animals to human beings, and then from human to human in the exponential way now sadly familiar.

Dr Daszak's point is that the matters in question can and should be dealt with. Future zoonotic outbreaks are surely inevitable. But with the right precautions it should be possible to ensure that they do not, as the current one has, lead to pandemics.

The precautions Dr Daszak and his colleagues have in mind add up to a three-layered defence. The first layer is a worldwide effort to find and track the hundreds of thousands of as-yet-unseen pathogens ►

► that might threaten human health. The second is the monitoring of blood samples and other indicators from people living in places where new diseases are most likely to emerge. The third is a concerted programme that employs all the data thus collected to get a head-start in the development of drugs and vaccines that might be used to meet an emerging disease halfway.

More than 1,400 pathogens are known to infect human beings. Only a fifth of these are viruses. But viruses are the cause of more than two-thirds of new human diseases, which is why both the discussion and the effort are focused on them.

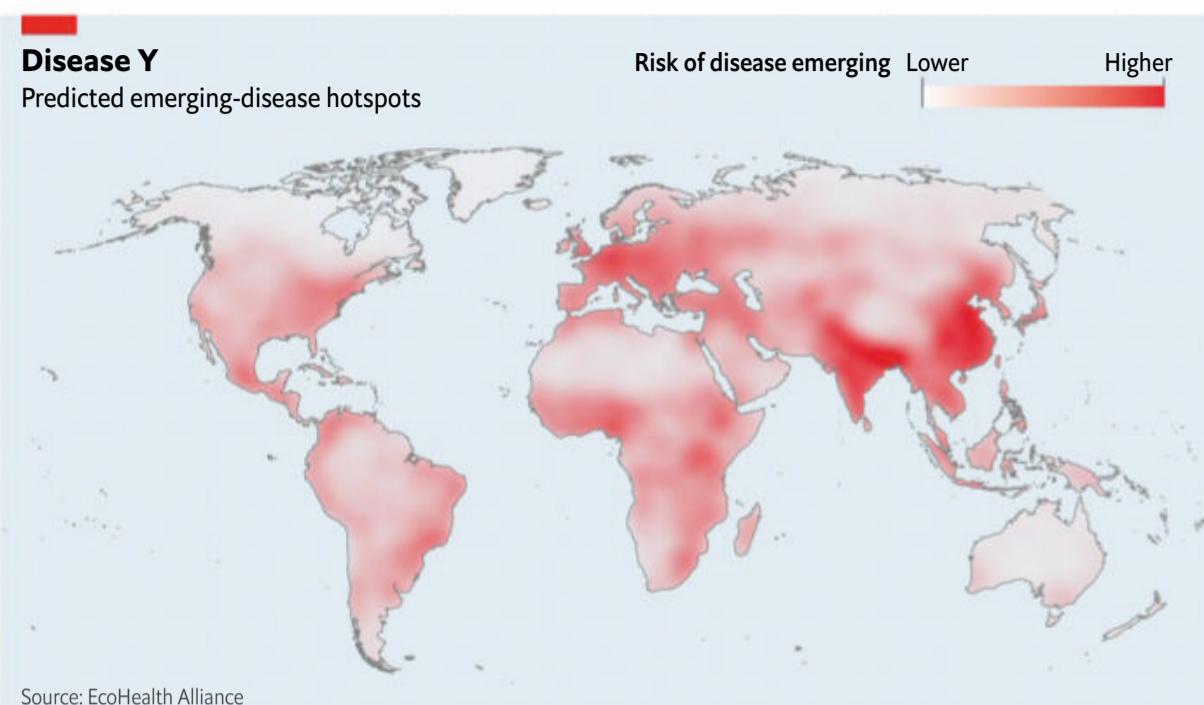
Being simple organisms that can reproduce quickly, viruses undergo much more rapid evolution than other types of pathogens. Hence their ability to adapt to novel hosts. Simian immunodeficiency virus (SIV), for example, moved from monkeys to chimpanzees and, separately, to gorillas before one of the chimpanzee strains got into people and became HIV-1, which went on to cause the AIDS pandemic (see Books & arts). Influenza viruses that break out into human beings are routinely found to have cycled through pigs or chickens first. And SARS-CoV, as the virus which caused the SARS outbreak in 2002 is now known, started in bats before (it is widely believed) migrating to civets.

Going viral

Ecologically, human beings as a species are particularly likely to be on the receiving end of this process. Few wild animals spend as much time cooped up with members of their own and other species as do herd animals and their herders. So when people domesticated animals and began to live in large, fixed settlements they gave viruses many opportunities to jump back and forth between species, a process called viral chatter. Many common diseases date back to the early days of domestication, and the population densities it brought with it. The species involved were not all domesticated. Smallpox appears to have come from rats. But the animals involved were ones that thrived in human company.

Zoonoses have continued ever since. Of more than 330 diseases which emerged between 1940 and 2004, over 60% were zoonotic. Of those over 70% originated in wildlife. For viruses the proportions were 69% and 87% respectively (see chart on next page).

This process seems to be accelerating. As human populations grow, previously wild areas are settled. That brings people into contact with sources of infection they would not otherwise have encountered. And, having encountered them, it is also easier to pass them on. Modern transport means that if a disease gets into people living in this frontier between civilisation and the wilderness it can quickly make its



way to a local metropolis and thence, courtesy of lorries, trains and planes, to others anywhere in the world.

The idea that these risks deserve systematic appraisal and monitoring surfaced after the emergence, in 2005, of the H5N1 strain of avian influenza. This was first detected in 1996, when it killed some geese in Guangdong province, China. The following year it infected 18 people associated with a poultry market in neighbouring Hong Kong, six of whom died. But for most of the subsequent decade the virus was restricted to farmed birds on the Chinese mainland.

In 2004, however, a highly pathogenic strain emerged and began to spread across South-East Asia, killing tens of millions of birds. By the middle of 2005 this version of the virus had infected wild geese, which took it into Europe, India and Africa. That year, 98 people were infected, and 43 of them died—a death rate severe enough for David Nabarro, then co-ordinator of the UN's response to influenza, to issue a warning that an unchecked H5N1 outbreak could kill up to 150m people. In 1968 a less pathogenic strain of flu, which had originated in the same area, killed 1m people when it spread around the world. In 1957 a still-earlier relative killed 1.1m. H5N1 was considerably more lethal than either.

In the end, forms of H5N1 that could spread easily from person to person never arose. But they came close. In 2012 Yoshihiro Kawaoka of the University of Wisconsin-Madison and Ron Fouchier of Erasmus University in Rotterdam undertook to discover how many mutations would have been required to make H5N1 transmissible between people via the droplets expelled in a sneeze. They found that changes at just five points in the genome would have done the trick. Two of these mutations were later shown to exist already in wild populations of the virus.

Fortunately, the other three never happened. The disease was brought under con-

trol among farmed birds, though it still circulates at a low level in wild populations, and human fatalities remained in the tens, rather than the tens of millions. This near miss may have spurred complacency among laymen. Scientists' dire warnings had come to naught. Among virologists and epidemiologists, though, it was a call to action—and one which came at an opportune time. The cost of sequencing the DNA and RNA in which viruses store their genes was, in the second half of the 2000s, falling at extraordinary speed (see Graphic detail). That made virus hunting possible on a previously unimaginable scale.

Predict and survive

In 2009 Dennis Carroll, an infectious-disease expert at USAID, America's international development agency, who had led that agency's response to the H5N1 outbreak, set up PREDICT. This project investigated and catalogued potential disease threats to people living near wildlife, with a particular focus on viruses. A few years later Jeremy Farrar, an infectious-disease doctor who was then at Oxford University's clinical research unit in Ho Chi Minh City and now heads the Wellcome Trust, a large medical-research charity, created Vizions. This project tracked pathogens circulating in people and animals living close together in farms and markets across Vietnam.

PREDICT ran for just over a decade. Scientists working with local teams in 30 countries collected around 170,000 samples from people and wild animals, mainly non-human primates, bats and rodents. In the process they discovered 1,200 new viruses belonging to families known to have the potential to infect people and cause epidemics. Among these were more than 160 potentially zoonotic coronaviruses.

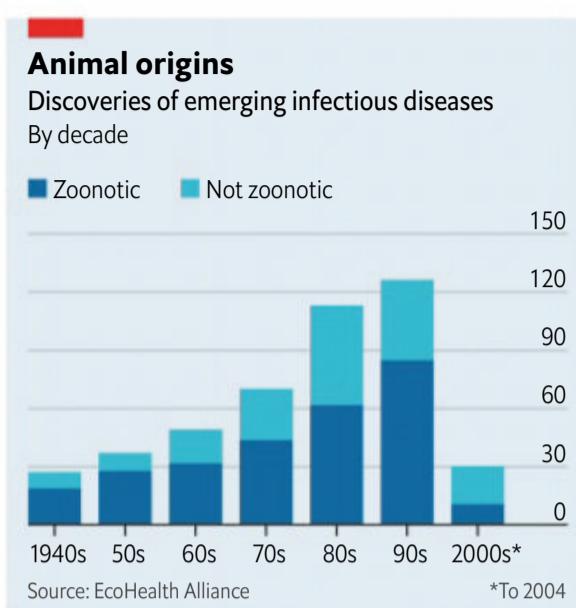
This, though, just scratched the surface. On the basis of how much they found during their early work Dr Carroll and his colleagues made a statistical estimate that, all ►

told, the world's mammals and birds play host to between 700,000 and 2.6m as yet unknown species from families of viruses that have shown the potential to cause zoonotic disease in humans. Between 350,000 and 1.3m of these unknown viruses, they argued, could have zoonotic potential.

In 2018 Dr Carroll, Dr Daszak and Jonna Mazet, an epidemiologist at the University of California, Davis, put forward a proposal aimed at turning those statistical estimates into genetic sequences. The Global Virome Project is conceived of as a decade-long effort to scour the entire world for its millions of unknown viruses and then read out all their genomes. The cost, the three researchers reckoned, would be \$4bn. A scaled-back version—one that concentrated on the highest-risk countries, the groups of people most vulnerable to outbreaks within those countries and the species, particularly mammals and water birds, most likely to be sources of spill-over—might get 70% of the data for a quarter of the money. But that was still five times the cost of PREDICT, the most ambitious such project to date. No funding bodies have yet taken the bait.

The fact that viruses with zoonotic potential outnumber those that have actually made the jump to people by something like a thousand to one reinforces the idea that, for any given virus, getting into humans and staying there is not that easy. The final products of PREDICT, which are now wending their way to publication, try to tease out the factors that help the jump to happen.

Among other things, having a registry of such risks might make it possible to identify hotspots where an unhealthy number of the conditions for zoonoses coexist. The PREDICT programme's risk registry includes virological, ecological and sociological factors. Viruses which store their genes as RNA, for example, are categorised as



more risky than DNA viruses, because of their increased ability to mutate. Viruses already found in more than one host are also flagged up. They clearly have an adaptive knack. And being adapted to a species reasonably close to *Homo sapiens* matters too. A virus able to reproduce in the cells of one species will, other things being equal, have a better chance of adapting to life in a related species than an unrelated one. SIV did not have to change all that much to become HIV. Reptile viruses, by contrast, are less of a threat.

The boys who cried "Goose!"

On the human side of the equation the presence of people who are using an environment in new ways is a palpable risk. Proximity and frequency of contact are important as well. Farmers who work with lots of animals day-in and day-out are the most threatened, especially where this happens in the presence of wild animals, too. And the sheer number of viruses a species has to offer is also significant (see chart on next page). Bats are a particularly rich source of emerging infections. The

large groups in which many bat species live, sometimes numbering in the millions, give viruses a huge arena in which to mix, evolve and develop the kinds of characteristics that might make them capable of spilling over into people.

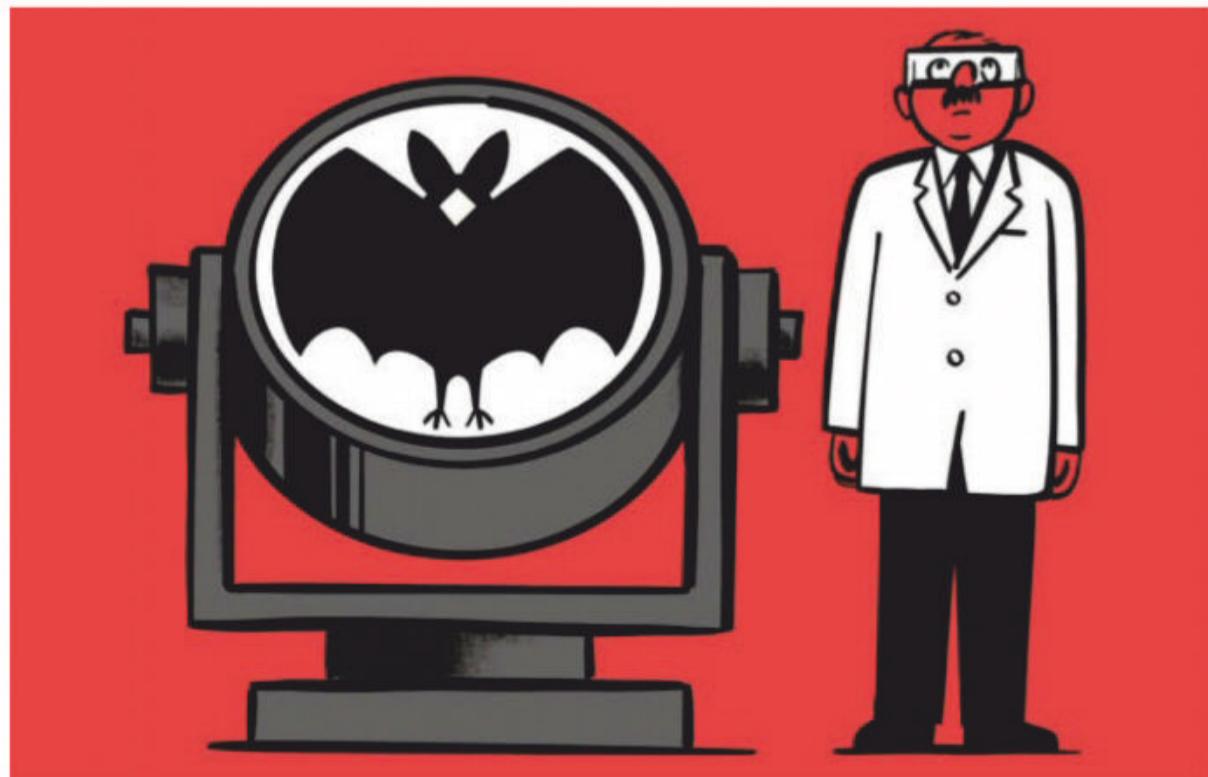
Besides being the original reservoirs of SARS-CoV and SARS-CoV-2, bats also harbour another coronavirus, MERS-CoV, which causes Middle Eastern respiratory syndrome, an illness first detected in 2012. They are also the source of the virus which causes Ebola and of the Hendra and Nipah viruses which, over the past three decades, have led to small outbreaks of deadly respiratory and brain infections in Australia and South-East Asia.

The viruses in question do not always travel directly from bats to people, as the civet-related example of SARS-CoV shows. Ebola seems to have done so. But Hendra and Nipah arrived via horses and pigs respectively that bats had defecated onto. In the case of MERS, the intermediaries were camels. Pangolins have been suggested as a conduit for SARS-CoV-2.

Dr Daszak and his colleagues at the Eco-Health Alliance have collaborated with Chinese researchers, including some at the Wuhan Institute of Virology, which established the chiropteran links with both SARS and covid-19, to gather samples from thousands of bats and other mammals across southern China. In a recent paper posted to bioRxiv, a preprint server, they published the genetic sequences of 781 coronaviruses found in bats, including more than 50 close relatives of SARS-CoV. In a paper in the March edition of *Biosafety and Health* Dr Daszak describes how some of these viruses have been shown to bind to human cells. In mice with genetically engineered "humanised" cells in their lungs, some of them cause a disease similar to SARS that is not responsive to therapies and vaccines developed against SARS-CoV.

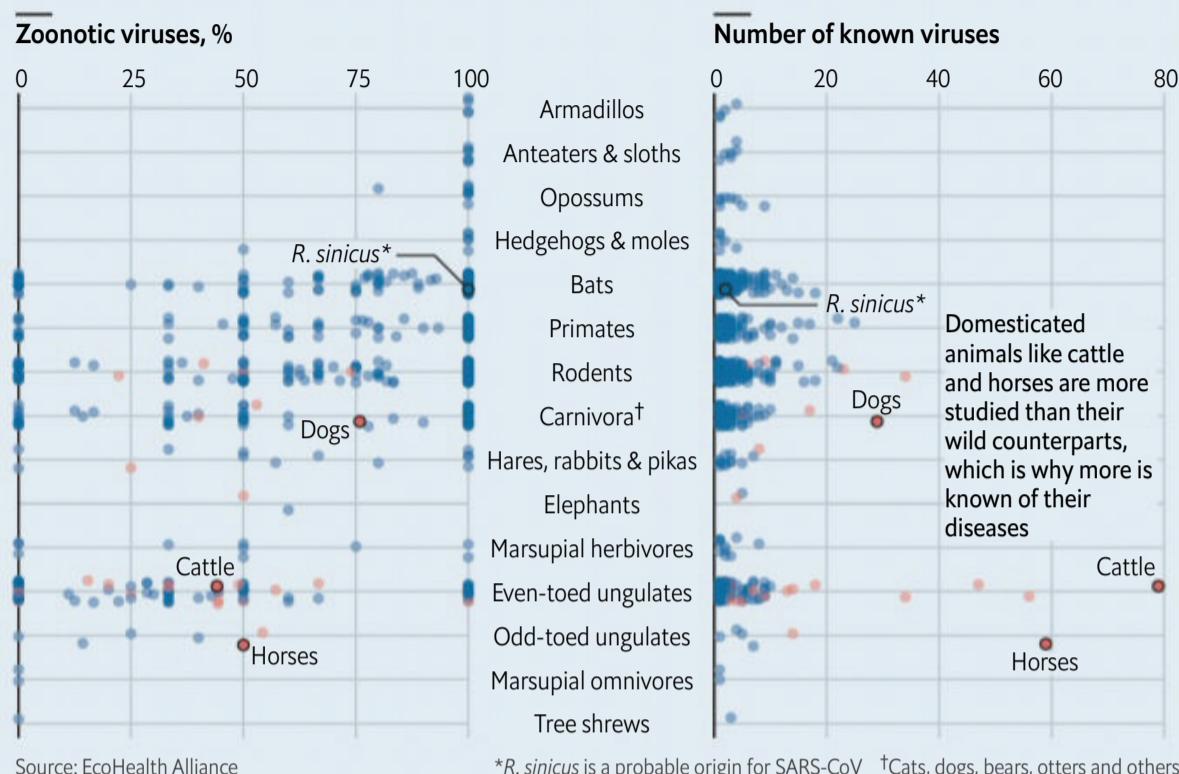
On top of this, several groups studying blood samples from the parts of China where the new coronaviruses were found have seen antibodies suggesting that people there were exposed regularly to some of these viruses between the emergence of SARS-CoV in 2002 and of SARS-CoV-2 in 2019. "Together," Dr Daszak wrote in the paper "these data mark wildlife-origin coronaviruses as a 'clear and present danger'. They also highlight exactly the issue of key concern in the current [covid-19] outbreak—that there is a large diversity of viral strains in wildlife in China with significant potential for emergence in people."

If something like the Global Virome Project were to identify markers for most of the world's potentially zoonotic viruses, keeping an eye out for one of them cropping up in a species that human beings routinely mix with would be easy—especially as genetic sequencing is now a hun-



The animals have it

Prevalence of viruses, by species



dredth of the price it was in the early days of PREDICT. But, as with the coronavirus work in China, it would also be advisable to keep an eye on the people doing the mixing with the animals, to look for viral chatter.

Dr Farrar's Vizions project ran in Vietnam from 2011 to 2017, with sampling teams regularly visiting farms, markets and abattoirs across the country and taking blood samples from people living and working there. They also took blood and faecal samples from animals in the vicinity, such as pigs, chickens, cats, dogs, bats, civets and rats. An important aim of the project was to set up local capacity to catalogue the diversity of viruses in these animals, some of which might become threats to human and animal health in future.

Vizions was only a pilot study, however. In light of covid-19 Dr Farrar proposes beefing up the human side of the surveillance effort by creating a Global Immunological Observatory that would monitor blood banks and discarded blood samples taken originally for clinical purposes for evidence of new viruses, as well as collecting blood samples specifically for this purpose from people in emerging-disease hotspots (see map on a previous page). This would reveal not only what was there, but also how immune responses formed in response to the possible new threats.

It would, though, be both morally iniquitous and politically naive to run such a system mainly in order to protect rich people in far-away lands from an eventual pandemic. Any scaled-up versions of these surveillance projects will need local support in order to work, says Dr Mazet. That means generating information which is useful where it is being collected, and

building up countries' public-health capacities at the same time. Paying for the new capacity could be linked to the funding of primary health care. Tests to monitor antimicrobial resistance in known pathogens could be run on the same equipment.

The knowledge produced might, for example, be used to direct public-health messages to the appropriate recipients. Dr Mazet says that as people became aware of the pathogens in their neighbourhoods they could alter their behaviour accordingly. Guano farmers, who collect bat droppings to use as fertiliser, might improve their personal protection—or move to another line of work. People who hunt wild animals could increase their hygiene standards when butchering meat.

As well as providing services for locals and early warnings for public-health systems, such surveillance could be useful for preparing countermeasures. Dr Daszak does not just want the coronaviruses he sees as a danger in South-East Asia to be catalogued in a way that would make it easy to pick out the one responsible in early cases of a new disease. He also wants them to be available in advance, for the development of potential broad-spectrum antiviral drugs and vaccines.

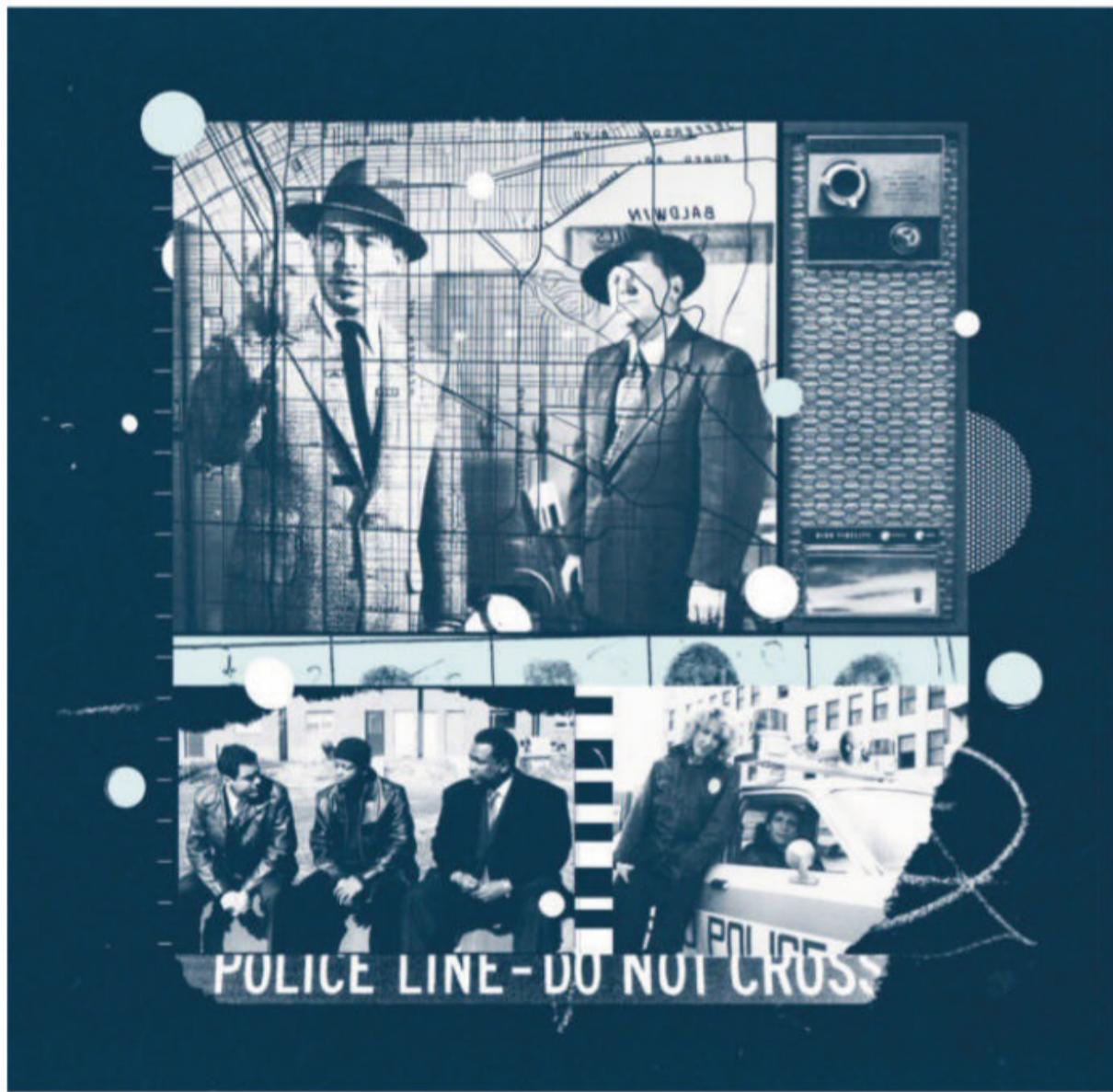
He cites the example of remdesivir, a substance originally intended to treat Ebola that recently became the first antiviral drug approved by America's Food and Drug Administration for use against covid-19. Researchers led by Ralph Baric, a virologist at the University of North Carolina at Chapel Hill, have spent years testing a library of around 200,000 drugs to see which, if any, would inhibit the novel coronaviruses collected and sequenced by EcoHealth. His team identified remdesivir as a promising candidate well before SARS-CoV-2 emerged. Paying for research into therapies for diseases that are not yet a problem may prove difficult. But mechanisms might be invented.

"We're not going to defeat the pandemic era by waiting for vaccines," says Dr Daszak. "We need to get ahead of the curve." But the politics and practicalities required to create a monitoring network capable of putting the world into that advantageous position may be hard to crack.

Many governments are reflexively unwilling to share data about their citizens (and some citizens have their doubts, too). They are often also protective of the potentially lucrative genetic details of their native biodiversity. Local officials are concerned about their power, and worry about being shown up as incompetent by surveillance. Zoonotic hotspots are, almost by definition, a long way away from the infrastructure that big biological-research programmes depend on. And not all public-health systems would be able to act on the sort of early warning such a system might provide.

But if there were ever a time when those problems looked tractable, surely that time is now. It is no coincidence that many of the countries which have responded most effectively to covid-19 are those that were dealt the heaviest blows 18 years ago by SARS. Canada, Hong Kong, Singapore and Taiwan were all hit in this way. And though South Korea, another effective responder, got off lightly when SARS was around it saw an outbreak of MERS in 2015. People do learn from experience. And now the world has experienced a pandemic that has affected almost everyone, whether they have become infected or not, maybe it will think more seriously about measures that could smother the next one at birth. ■





Cops on TV

Watching the detectives

Television has distorted Americans' view of policing. But it can do better

CRIME RATES are low in America by historical standards, but television viewers could be forgiven for thinking otherwise. Of the 34 dramas that aired at prime time on the four big broadcast networks last autumn, 21 revolved around crime. On CBS the figure was 11 out of 14. Cops and robbers are essential and everywhere in the small screen's alternative reality.

And on reality television. For 31 years viewers tuned in to "Cops" to see officers busting drug-dealers, reckless drivers and prostitutes. But no longer. Before its new season began, Paramount Network and its owner, ViacomCBS, axed the show amid spiralling protests over police brutality. The conceit of "Cops" was simple: follow officers and film their encounters. But critics said it got access in exchange for favourable coverage of police. Many of those arrested may have been too high or confused to consent to appearing. The show exaggerated the role of drugs, which accounted for

35% of arrests, three times the true rate. Compared with real-life arrest data, black and Latino men were over-represented.

The ratings for "Cops" were poor, so the decision to nix it might have been easy. But "Live PD", a more popular show on A&E, has also been cancelled. It had admitted to erasing footage of a black man dying in police custody last year. The reckoning has hit drama series, too, as insiders grapple with television's role in distorting perceptions of policing and normalising abuses.

Warren Leight, executive producer of "Law & Order: Special Victims Unit" ("svu"), has said that cop shows are collectively "mis-contributing" to society. Dream Hampton, a producer and director, has suggested a moratorium on new ones. Too often, she said, they "justify the cutting of corners, the throwing away of the constitution". They also make policing look more effective than it is. In real life, just 46% of violent crimes were resolved with an arrest

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in 2018, compared with every one on "svu".

All this matters, because many people believe what they see on the box. Over 40% of Americans think crime shows are realistic. This can have peculiar real-world effects, such as armchair sleuths telling detectives how to do their job. In one study, police in Canada confided their frustration over "CSI" fans who tried to interview witnesses and identify evidence themselves.

Overall, tv-watchers are more likely than others to have confidence in the police. They are also more prone to think, wrongly, that police misconduct yields truthful confessions—not surprisingly, given how such behaviour is often portrayed. A study of a season's worth of four American crime shows in 2011 found that, on average, police acted badly once per episode. Almost all instances were justified and went unpunished. Rule-bending actually boosted officers' roles as moral enforcers. The effect was to forgive their abuses.

Racism has been swept under the carpet in a different way. Colour of Change, a pressure group, analysed 26 crime shows that aired in 2017-18. Racism, it found, was rarely a factor when TV policemen acted wrongfully. In fact, racial disparities in the criminal-justice system went largely unmentioned. Neither excessive force nor incarceration affected minorities disproportionately, as they do in reality. Aaron ►

► Rahsaan Thomas, executive producer of “S.W.A.T.” on CBS, likens these themes to medicine—easier to avoid for networks chasing the largest possible audiences. In particular, “CSI” and “SVU” skirt issues of race by making most offenders and victims white. The explanations for crime tend to be psychological, not sociological.

Take a long view, though, and it is clear that things can change for the better on TV, because in some respects they already have. Police dramas have been a staple of schedules for decades, for obvious reasons: the stakes are high; the action is fast-paced; the endings are morally satisfying. But the genre has evolved. In the 1950s Jack Webb, the creator of “Dragnet”, adapted genuine cases. The Los Angeles Police Department signed off the scripts; its officers were portrayed as virtuous and efficient.

Bad boys in blue

In the 1980s and 1990s shows such as “Hill Street Blues” and “Homicide: Life on the Street” tackled rising urban crime. Policing cities was portrayed as hard and complicated; cops broke the law to get the job done. “I believe in the constitution,” affirms a detective in “NYPD Blue”. But if a murder suspect walks free, he says, “I do what I have to do” to extract a confession. In the 21st century two shows—“The Shield” and “The Wire”, which both first aired in 2002—declined to absolve rogue police. “The Wire” humanised both cops and criminals and drew parallels between them, as officers act badly and cover it up. Still, neither show implies that police forces are so corrupt or broken that they ought to be dismantled, as some in America are now urging.

How can TV reflect that mood? Jason Mittell of Middlebury College suggests a series inspired by Camden, New Jersey, which disbanded its police force in 2013 and reconstituted it with an emphasis on community relations. Murders decreased. That, he says, “would let viewers imagine what it means to rethink this institution, what happens to society when it is recast.”

A more realistic show might be less frenetic. “The constant running and chasing cars—that’s not what policing is like,” says Ronal Serpas, a former police chief of New Orleans now at Loyola University. He notes that most cops never fire their gun on duty. They are more likely to answer house alarms and attend to neighbourhood spats.

Broadcasters will not entirely ditch a formula that has proved so successful. But they may have more appetite for dramas that focus on the policed, such as “When They See Us”, a recent Netflix series about black and Latino teenagers wrongfully convicted of raping a jogger in Central Park in 1989. Savvier viewers will want more stories that reflect reality better, predicts Mr Thomas of “S.W.A.T.”. “The public is ready for a more nuanced conversation.” ■

Trade and geopolitics

A hill of beans to die on

Superpower Showdown. By Bob Davis and Lingling Wei. *Harper Business; 480 pages; \$32.50 and £25*

Trade Wars are Class Wars. By Matthew Klein and Michael Pettis. *Yale University Press; 288 pages; \$28 and £20*

ROBERT LIGHTRIZER, the United States trade representative, joined the Trump administration as a longtime critic of China. A protectionist, he had prospered as a lawyer by fighting Chinese steel firms over their exports to America, denounced the country’s admission to the World Trade Organisation (WTO) in 2001, and disparaged the American government’s approach to its subsequent rise. As America’s chief trade negotiator from 2017, he saw an opportunity to right old wrongs.

Two new books offer accounts of the economic conflict that Mr Lighthizer stepped into. In “Superpower Showdown” Bob Davis and Lingling Wei chronicle his attempts to negotiate a deal between America and China, which were at times so muddled that the Chinese failed to realise who was leading the talks. “Trade Wars are Class Wars”, by Matthew Klein and Michael Pettis, offers a deeper argument about the source of the trouble. The pair think the real battle is being fought inside China, between workers and elites.

Both books point out that the problems had been building for decades, but, say Messrs Klein and Pettis, the rot took a while to set in. When a country is trying to grow richer, it can help to keep consumer spend-

ing low and to channel resources into investment instead. But in China this strategy lingered for too long. Suppressed interest rates robbed savers of spending power and encouraged wasteful investment; internal migration restrictions held down wages; a weak currency subsidised exporters at the expense of consumers. The result is that Chinese producers make more stuff than ordinary people can afford to buy.

Diplomatic tensions arose when the excess spilled into foreign markets. Spurred on by the world’s hunger for dollars, America has mopped up much of it—to the detriment of its own manufacturing base.

“Superpower Showdown” illustrates these trends with stories from both sides of the Pacific. It includes the tale of Liu Zhan-yi, whom locals in Guangzhou often mistook for a truck-driver because of his modest attire, instead of recognising him as the owner of one of China’s largest tyre exporters. Between 2004 and 2008, as his business was enjoying success, employment in the American tyre industry shrank by 14%. The Obama administration responded with temporary tariffs on Chinese-made tyres in 2009, to little effect. By then some tyre wholesalers and retailers were so dependent on imports that the tariffs pushed them into bankruptcy.

Mr Lighthizer took a different line of attack. He convinced Mr Trump to launch an investigation into China’s economic practices, including the alleged theft of American intellectual property. Unsurprisingly, this concluded that the Chinese had indeed sinned, for example by abusing joint ventures with foreign companies to force them to hand over valuable technology. It was not lost on the Chinese that Thomas Murphy, chairman of General Motors, had first suggested these partnerships in 1978 as a way to boost China’s car industry. ►



Wheels within wheels

► Resolving this clash of economic systems peacefully was always going to be difficult, particularly given the interventionist inclinations of China's president, Xi Jinping. Mr Lighthizer understood the challenge, but figured that the administration's pressure might bolster market-minded reformers within China and loosen the state's grip on the economy. That had happened when China joined the WTO. He hoped to repeat the trick.

What followed was, in Mr Davis's and Ms Wei's telling, a stunningly cack-handed negotiation. Mr Lighthizer was under-

mined by colleagues pushing for tariffs on American allies who might have helped cajole the Chinese. Mr Trump himself was torn between a desire to lift the stockmarket and fury that the Chinese were not buying more soyabean (John Bolton, his former national security adviser, alleges in his new book that the president was preoccupied with the impact on his own re-election prospects: see Lexington). At one point in the talks Washington was full of references to Mr Trump as the title character in "Jack and the Beanstalk": might all this fuss have been over a cup of beans? A

Chinese delegation interpreted a packed room of officials as evidence that they were being taken seriously. In fact it indicated that the Americans did not trust each other.

Ultimately the two sides settled, literally and metaphorically, for a few beans. The initial deal they signed in January 2020 left the hardest problems for another day. Mr Klein and Mr Pettis demonstrate that giving up is unwise, because ordinary folk deserve a bigger share of the economic pie, and conflicts will persist until they get it. Mr Davis and Ms Wei show that the Trump administration was unfit to do the job. ■

Johnson The rules of coronaspeak

How to coin a new word that has a chance of catching on

NECESSITY, THEY say, is the mother of invention. Perhaps boredom is its father, and—in the world of language and its coinage—social media the incubator. The coronavirus pandemic has produced a vast number of new terms, serious and (mostly) playful, to describe the predicaments of lockdown.

Start with the *coronaverse*, which people everywhere now inhabit, or the *quarantimes*, the era in which they now live. Early fears of the total breakdown of society in a *coronapocalypse* have proved, thankfully, too pessimistic. But *viral anxiety* reigns, as do complaints of *Zoom fatigue*. Participants appear on screen for meetings with a *quaransheen* of unwashed sweat on their faces. Feelings seem to be on an *emotional coronacoaster*. Meanwhile, *covidiotics* are spurning lockdown restrictions in ways likely to make the pandemic worse, amid an *infodemic* of dodgy news and half-informed *coronasplaining*. At least there is a *locktail hour* at the end of the week (or, for many, at the end of most days).

Most of these *coronacoinages*—whether you have encountered them before or not—make sense on their face. But why exactly do they work? To answer that, it helps to look at some efforts that do not. What, for example, is a *morona*? A *pansion*? *Smizing*? Along with the new terms above, these appear on a list collected by Tony Thorne, a linguist at King's College London. But chances are high that most readers don't know them, and fewer still will be using them.

There are various ways to form new words. One is to repurpose an old one: the pandemic has yielded new meanings for *bubble* and *circuit-breaker*, for instance. Then there is shortening, on which Australians seem particularly keen, having coined *pando* (pandemic),



iso (isolation) and *sanny* (hand sanitiser).

But the most creative category in Mr Thorne's collection—and the largest, at nearly 40% of the total—are portmanteau words. A portmanteau is a term like *brunch*, in which two words are combined, usually one or both being shortened. If neither word is truncated, as in *coronacranky*, the result is more an old-fashioned compound than a true portmanteau.

The first rule of a successful new portmanteau is that it points to a thing worth naming. This may seem obvious, but perhaps not so to the coiners of *infits*—a decent pun on *outfits*, but as a term for the clothes worn inside during lockdown it is a solution in search of a problem.

The second rule is that a portmanteau should be transparent; ie, the words that went into it should be obvious. Few English words end in *-tini*, with the result that if someone invites you for a *quarantini*, you know what to expect. The more of the original two words you can use, the better. This, in turn, is much aided if the distinctive sounds in those words overlap, making the result more compact. Think

sexxt, an instant hit. The "teen" sound in *quarantini* (shared by both *quarantine* and *martini*) is key to its success.

By contrast, *loxit*, for the much-hoped-for exit from lockdown, is a dud. Lose the distinctive vowel at the beginning of *exit* and you have something that sounds as though it has to do with brined salmon. *Pansion* fails for a different reason. It stands for "pandemic recession". But neither of its elements is sufficiently distinctive. Too many words start with *pan-* or end with *-cession* for the meaning to jump off the page.

An overlooked rule of portmanteaus is that the second element is more important than the first. That is because it is the core of the word: an XY is a type of Y, not a type of X. This explains the weakness of *morona*, a synonym for *covidiot*, from *corona moron*. It obeys the overlap requirement above (in the sharing of *-oron-*), but falls at the sequencing hurdle, since a *morona* is not a type of *corona*. Ditto for *smizing*, which is supposed to mean smiling with your eyes, while your mouth is hidden by a mask. It is not a kind of *eyezing*.

Dictionary websites often have a notice to would-be word-coiners: please don't send us your neologism and ask to have it included. Dictionaries record not useful words, but used ones, which are actually spoken or written long or often enough to convince the lexicographers that they have found a place in the language. If you want your contribution to coronaspeak to take off, you need to lobby not the dictionary-writers, but your friends and colleagues, and get them to use and publicise it. Good coinages are much rarer than failed ones, but pay attention to usefulness, transparency and sounds, and your invention may find its way into the panglossary.



HOME
ENTERTAINMENT

Diaspora cuisine

Keep it holy

A traditional Jewish recipe makes a perfect lockdown dish

IN THE SHTETLS of eastern Europe, Jewish cooks faced a weekly dilemma. The Torah forbade them to prepare meals, or light an oven, between sundown on Friday evening and nightfall on Saturday night. Yet they were commanded to feast on the Sabbath. They needed something that could be made in advance but improved through steady heating (permitted if the heat was already on). The solution was cholent, as Ashkenazi families call the thick brown stew that sustained them through centuries of Saturday lunches. Today, for nostalgic Jews and curious gentiles alike, cholent is the perfect lockdown dish.

Back in *der heim*, most homes were poor, and had at best a small wood-burning stove. The cholent pot would be filled with whatever lay to hand—typically potatoes, barley, beans, onion and a bit of fatty meat if the household could afford it—and taken by one of the children to the neighbourhood bakery. For a small payment, it would be placed in the oven for an initial blast of heat. Then it was hurried back home to the stove for a longer sojourn, during which the contents melded into a dark, stodgy gravy. (Sephardis call their version of this concoction *hamin*.)

Cholent takes at least 24 hours to make properly. But then, what else are you doing at the moment? And it won't require you to stand in a socially distanced queue at some chichi delicatessen: you will have most of the ingredients already. Layer them in the pot, add salt and pepper, cover with boiling water—and that's it. Left in a slow-cooker, on a hotplate or in the depths of an oven at minimum heat, the cholent cries out for regular inspection. Every time the lid is raised, the aroma permeates the house. After it simmers overnight, you will wake

to a delightfully fragrant kitchen.

Ultra-orthodox Jews never kicked the cholent habit. Among the more secular, the tradition faded over the generations. In recent years, though, it has begun to make a comeback among hipsters in Tel Aviv and Brooklyn, who gather at weekends for cholent parties. Tradition is part of the appeal, but so is the prospect of experimentation. Many other national and regional cuisines have rustic, long-cooked stews of their own, but cholent is different because of its inherent flexibility. The basic concept is mentioned in the Talmud, but Jews across the diaspora have cooked and adapted it wherever they settled.

In Iran, cracked wheat replaced barley. In Alsace, goose was preferred to brisket. In the East End of London, a tin of baked beans was sometimes tipped in; sweet potatoes and ketchup were introduced in America. It is amenable to innovation with spices and condiments (your correspondent's personal twist is a spoonful of date molasses). The German poet Heinrich Heine wrote that God himself had instructed Moses in the secret of preparing cholent. But mortals may tinker with the recipe. ■



Lust and money

The silliest girls in England

A delicious costume drama that has stood the test of time

IT IS A truth universally acknowledged, at least among the hip, that British costume dramas are as naff as pastiches of Jane Austen's opening lines. As twee as they are numerous, they truss reactionary class politics in sentimental plots to flog to suggestible foreigners. But at least one landmark of the genre should be spared the scorn. The BBC's "Pride and Prejudice" remains as delirious a delight as when it was first broadcast in 1995. Or more so.

True, the production feels dated, and not only as the high-waisted Regency gowns are meant to. It now seems quaint that Colin Firth, playing Mr Darcy, became an instant heart-throb by emerging from a pond in a clingy shirt. Darcy's approach to courtship is outmoded in a less endearing way. The art of the glance is beyond him: in a habit that these days would border on harassment, for much of the series he stalks and glowers at Elizabeth Bennet (Jennifer Ehle), torn between desire (for her sass and cheekbones) and snobbery (some of her relatives are in trade). "Can you tell me why Mr Darcy keeps staring at me?" she eventually asks a bystander.

Yet the wheels on the Barouche box have come full circle, and today the drama is more apposite than it was 25 years ago. The five Bennet sisters, including "three of the silliest girls in England", spend much of their time sitting at home, reading, sewing and driving each other nuts—much like families in lockdown. Just as deliverymen are now welcomed like celebrities, the arrival of the post is a seismic event. Occasionally the sisters go into town to flirt with the militia, but mostly they find stimulation in socially distanced walks around their garden or down a muddy lane, on which they discuss their parlous finances or the health of relatives and receive offers of marriage.

As in Austen's novel, the characters are enchantingly vivid, if in exaggerated form. Some are so ghastly that whenever they are off-screen you long for them to reappear—above all Mrs Bennet (Alison Steadman), a hyperventilating social climber, and Mr Collins (David Bamber), a slimy clergyman. Those two combine with Mr Bennet (Benjamin Whitrow), the girls' laconic father, to hilarious effect. When Elizabeth declines Mr Collins's proposal, Mrs Bennet begs her husband to change their daughter's mind. "Your mother will never see you again if you do not marry Mr Collins," he deadpans, "and I will never see you again if you do." Look out for Mr Hurst (Rupert Vansittart), a doltish toff who is drunk or asleep in every scene.

Amid an orgy of sideburns and double staircases, Andrew Davies's screenplay zooms in on the story's essential, timeless themes, namely lust and money. And on the grubby relationship between them: despite its cloistered, comforting innocence, Austen's world is ultrapractical about love. Even admirable Elizabeth traces her regard for Darcy to her first glimpse of his grand estate. All the same, when at last she accepts him (on a muddy walk), you would be a monster not to smile. ■



The lessons of HIV/AIDS

Slow poison

JOHANNESBURG

How the last great pandemic changed the world

IN THE EARLY 1990s, at the end of every workday, Matshidiso Moeti would lock a notebook in her desk at Botswana's ministry of health. Written inside were the names of Botswanans who had tested positive for HIV. The stigma of having the virus that causes AIDS meant there had to be the "deepest secrecy", she recalls.

Soon a single notebook was not enough. By the end of the 1990s more than a quarter of Botswanans aged 15-49 had the virus, the highest rate in the world. Between 1986 and 2001 life expectancy fell by more than a decade, from 61 to 50 years—lower than when the country became independent in 1966.

The HIV/AIDS pandemic was the formative experience for many of the doctors leading the response to covid-19. Dr Moeti is director of the World Health Organisation's Africa region. Anthony Fauci, who advises President Donald Trump, earned his spurs during America's AIDS crisis. "I draw on HIV for just about everything we do," says Salim Abdoel Karim, who advises President Cyril Ramaphosa of South Africa.

The two great pandemics of the past 50 years are very different. HIV is usually spread via sex, can take years to cause disease and if untreated is highly lethal. In Cameroon it was called *le poison lent*, the slow poison. SARS-CoV-2, the virus that causes covid-19, is less deadly, but spreads and manifests much more quickly. Nevertheless HIV/AIDS is a constant reference point. When Dr Moeti reads the latest covid-19 case numbers, she thinks of those notebooks.

An understanding of HIV/AIDS matters for another reason. It is a reminder that pandemics do not readily disappear. Life-prolonging treatments have turned

HIV/AIDS into a mostly chronic disease. New infections have decreased for 25 years. Yet 1.7m people were newly infected in 2018. Globally 32m people have died from AIDS. Despite biomedical advances there is no cure and no vaccine. Human behaviour and norms had to change. Tens of millions deal with the vast indirect impacts, especially in sub-Saharan Africa. The worst of the pandemic may be over, but its effects endure.

The history of HIV in humans began around a century ago. Scientists think that the virus responsible for the vast majority of cases, HIV-1, crossed the species barrier from chimpanzees in the 1920s or earlier in central Africa. It spread slowly for decades, before transmission accelerated worldwide in the 1970s.

In 1981 the Centres for Disease Control and Prevention (CDC), an American public-health body, warned about outbreaks of pneumonia and a skin cancer, Kaposi's sarcoma, in gay men, as well as a number of "opportunistic infections" taking advantage of a breakdown in the body's immune system. When other cases were soon reported among Haitian migrants, haemophiliacs and heroin users, as well as babies of infected women, what had been Gay-related immunodeficiency disease (GRID) became Acquired immunodeficiency syndrome (AIDS). Diagnoses followed in other parts of the world. In 1983 HIV was discovered as the cause.

The early years of the pandemic were characterised by confusion and fear. Once AIDS symptoms emerged people typically died within 12 months. By the end of the 1980s it was one of the leading causes of death for young men in many rich countries. Andrew Sullivan, a gay journalist who is HIV positive, recalls "witnessing" ▶



► the sickness and death of others, knowing that you too could be next, even as you feel fine." In "How to Survive a Plague", the American author David France recounts trips to the doctor at the merest hint of a skin blemish.

Some revelled in the terror. Most people catch HIV through heterosexual sex, but in many rich countries the majority of cases were among gay men. "The poor homosexuals—they have declared war upon nature, and now nature is exacting an awful retribution," said Pat Buchanan, an adviser to Ronald Reagan, who was elected president of the United States in 1980. Venom was coupled with hysteria. Just one undertaker in New York City would embalm AIDS victims.

It did not help that the Reagan administration was neglectful. The federal government shortchanged and slowed efforts to prevent, treat and research HIV/AIDS. The president did not mention the disease in public until 1985. Similarly Margaret Thatcher, then prime minister of Britain, was squeamish about safe-sex campaigns and had to be overruled by Norman Fowler, her health secretary, who launched the "Don't Die of Ignorance" campaign in 1986.

Today it's me, tomorrow someone else

Ultimately it was people with AIDS who did much to turn the tide of the disease. Safe-sex campaigners popularised the use of condoms, while activists pressed the Food and Drug Administration, which approves medicines, to accelerate clinical trials. In America Dr Fauci, then as now the head of the National Institute of Allergy and Infectious Diseases, went from being a target of activists to becoming an ally. Larry Kramer, the irascible founding father of AIDS activism, who died aged 84 on May 27th, considered Dr Fauci "the only true and great hero" in officialdom (Kramer originally thought he was "an incompetent idiot").

The first evidence that combination antiretroviral therapy (ART), a cocktail of HIV-suppressing drugs, could radically change the course of the disease arrived in 1996. ART led to dramatic reductions in mortality rates. Patients spoke of a "Lazarus effect". It was a turning point in rich countries. Histories of the American epidemic often end here—with a coda on how the HIV/AIDS epidemic helped human rights and probably accelerated public acceptance of same-sex marriage.

But in developing countries the situation remained grim. Most HIV-positive people have always lived in Africa, where the virus is overwhelmingly spread via heterosexual sex. By 1996 AIDS was the most common cause of death in sub-Saharan Africa. In Zimbabwe life expectancy fell to 43 in 2003.

There is no single reason for the severity of the pandemic in Africa. There are biological reasons to consider, from the amplifying role of tuberculosis, high rates of other sexually transmitted diseases, the potential role of African genomes, and the viral subtypes common in Africa. Then there is the swish of Occam's razor by John Iliffe in "The African AIDS Epidemic", in which he writes that: "Africa had the worst epidemic because it had the first epidemic."

Multiple theories have been put forward, most containing some truth. Poverty, for example, matters. When ART cost at least \$10,000 per person per year, as it did in 1996, only elites could be treated. But poverty does not explain why prevalence was already so high. More than a fifth of adult residents of capitals such as Kampala and Lusaka were HIV-positive by 1990. Other poor parts of the world, including central America,



South Asia and the Caribbean were less affected. Botswana and South Africa, two of the richest African countries, are two of the hardest hit.

Patterns of commerce and migration are important. Across Africa goods are moved by long and slow truck journeys. Studies have highlighted the high rates of HIV among truck drivers and prostitutes at stops. Another arrangement that encouraged the spread of HIV, especially in southern Africa, was the migratory labour system that began in colonial times and persists to this day. Miners would spend many months away from their families. Often they lived in single-sex dormitories, surrounded by prostitutes attracted by the miners' steady wages. Studies of mining towns found extremely high rates of HIV.

It was once suggested, with a large degree of prejudice, that African "promiscuity" was to blame. Subsequent research in various countries suggests that Africans have no more partners over a lifetime than anyone else. What is key is the detail. Studies by Martina Morris of the University of Washington suggest that in some African countries it is relatively common to have concurrent partners, which raises the infection risk. In Uganda, which successfully reduced infection rates, a "zero grazing" campaign is cited as a cause, in which men were encouraged to reduce the number of their sexual encounters.

Sex is wrapped up with power dynamics. It is impossible to understand AIDS in Africa without a grasp of sexual inequality. A survey of rural women who migrated to Kinshasa, Congo's capital, revealed that many contracted HIV after entering into transactional sexual relationships, often with older, richer men. To this day, across the region, the rates of HIV infection among young women are far higher than among young men. In some cases women either do not feel a need to insist on condom use or are not able to insist.

Another amplifying factor was the responses of African leaders. Some, such as Uganda's Yoweri Museveni, talked openly about the disease (even if he was sceptical about condoms). Others saw HIV/AIDS as a Western plot or denied that it existed because Africa did not have homosexuals.

Worst was Thabo Mbeki, who succeeded Nelson Mandela as president of South Africa in 1999. While surfing the internet, he encountered the ideas of HIV denialists, or "dissidents", who claimed that the virus was not the cause of the disease. He prevented poor South Africans from getting state-funded ARTS, while backing a scheme to develop a local alternative that turned out to be an industrial solvent. Activists and judges eventually brought about a more rational set of HIV policies. But not before 340,000 needless deaths, estimates Nicoli Nattrass, an economist.

Religion also played a role; sometimes for good, but often for ill. Data from Afrobarometer, a pollster, suggest that religious figures are more respected than other pillars of society. As in America, many saw HIV/AIDS as punishment for sin, with some churches opposing condoms and refusing to bury AIDS victims. Traditional religions could be unhelpful, too. In Malawi hundreds of thousands flocked to one healer who claimed ancestral spirits had instructed him in the use of a tree bark to cleanse people of the disease.

Blame, stigma and denial discouraged open conversations about HIV/AIDS. In Congo, SIDA, the French initials for AIDS, was said to stand for *syndrome imaginaire pour décourager les amoureux*, or "imaginary syndrome" ►

It is impossible to understand AIDS in Africa without a grasp of sexual inequality



▶ to discourage lovers". Though some famous Africans, such as Philly Lutaaya, a Ugandan singer, were honest about their condition; others, like Fela Kuti, a Nigerian musician, were not.

The fear of what an HIV diagnosis might mean for your family, or your position within it, was pervasive. Some traditional religions saw early deaths as a break in the ancestral chain. And if you were the first in your family to test positive, you could be accused of bringing the disease into a household. Since women were more likely to get tested, and because of the possibility of transmitting the virus to a fetus, they were at greater risk of stigmatisation.

It is perhaps unsurprising then that, despite widespread knowledge of HIV/AIDS by the 1990s, only a minority of HIV positive Africans got tested. And why bother with a test when there was no affordable treatment? HIV was often only one issue among many. Data from Afrobarometer suggest that HIV/AIDS has never been a major election issue anywhere, bar Botswana.

The result was that HIV/AIDS enfeebled workers. A study of a Kenyan tea-plantation between 1997 and 2002 found that those with HIV picked 4-9kg per day less than those without. Alan Whiteside, a South African economist, found similar results in mines, cement works and textile factories. Farmers with HIV cultivated less land. The cumulative agricultural effects have led researchers to wonder whether HIV/AIDS intensified famines in the early 2000s.

Death brought further ruin. Funerals are expensive—nearly a year's income, according to one study in Kinshasa. Then there was making do without an earner. A study of Tanzanian families in 2008 found that consumption over five years was 19% lower in families where an adult died of AIDS compared with the average family. And the effects on African families go further than that. In 2012 it was estimated that of the 56m orphans (defined as children who lost at least one parent) in sub-Saharan Africa, 15m were a result of AIDS.

Orphans on average are enrolled in school later and pulled out earlier. This can have a doubly detrimental effect. They receive less education. And there is evi-

dence that the longer girls stay in school, the more likely they are to delay having sex, and thus to reduce the risk of HIV.

HIV/AIDS also had political effects. Most obviously it killed politicians. There were 59 byelections for Zambian MPs between 1984 and 2003, in large part because of AIDS deaths, versus just 14 in the preceding two decades. The timing of the pandemic in South Africa was especially cruel. Mandela became president in 1994, bringing an end to apartheid. But just at that life-affirming moment, "AIDS weakened the whole of society," says David Harrison of the DG Murray Trust, a foundation. Mandela himself later apologised for not prioritising the disease—as president, he barely mentioned it. Gains in education, child and maternal health slowed.

For all its effects, though, HIV/AIDS did not cause the state and economic collapses that some feared. There are perhaps three reasons for this. The first is that prevention efforts were more effective than many expected at the time. Prevalence in Uganda, for example, may have peaked as early as the mid-1980s. In many countries grass-roots organisations led by "positive positive" women were crucial. Also important were increased condom use and male circumcision, which is associated with a 60% drop in infection risk.

The second reason is that treatment became much cheaper, and therefore more accessible. The price of combination therapy fell from at least \$10,000 a year to less than \$100 in the early 2000s, after drug firms bowed to intense public pressure to make it affordable in poor countries.

Although new infections and death rates are falling, there is still much to do. The United Nations is signed up to "end AIDS as a public health threat" by 2030, via a 95-95-95 strategy: 95% of those infected globally knowing their status; 95% of that group receiving ART; and 95% of them having HIV effectively suppressed. On current trends these goals will not be met, especially if covid-19 means fewer people seek treatment for HIV.

In times of joy, in times of sorrow

The HIV/AIDS pandemic is therefore likely to remain a lethal presence. Increasingly its burden falls on the marginalised—its skewed impact being the third reason why it did not lead to national collapses. There is a big discrepancy between the economic impact on individual families and those on states, notes Markus Haacker, an economist who has written several books on HIV/AIDS. African women continue to deal with much of the fallout from the pandemic. Janet Seeley, an anthropologist, suggests that grandmothers in Uganda and South Africa can feel great guilt when they do not live up to the popular expectation that they will heroically care for orphans and the sick.

The idea that the world may have to live with covid-19 for years, if not decades, is hardly a popular one. But the example of HIV/AIDS shows that scientific breakthroughs can take much longer than people expect. An HIV vaccine has been years away for decades.

And if there is an ultimate lesson, it is that human behaviour—from safe sex to needle exchanges and the screening of blood donations—can do much to stop a pandemic, even if that change is slow. Drugs have suppressed HIV/AIDS and societies have adjusted in subtle, often painful, ways. As the world grapples with its latest great outbreak, HIV/AIDS suggests that, while pandemics do subside, they may not end. ■

The example of HIV/AIDS shows that scientific breakthroughs can take much longer than people expect



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Economic data

	Gross domestic product			Consumer prices		Unemployment rate		Current-account balance		Budget balance		Interest rates		Currency units	
	% change on year ago latest	quarter*	2020†	% change on year ago latest	2020†	%		% of GDP, 2020†		% of GDP, 2020†		10-yr gov't bonds latest,%	change on year ago, bp	per \$ Jun 24th	% change on year ago
United States	0.3	Q1	-5.0	-4.8	0.1	May	0.7	13.3	May	-1.8	-14.0	0.7	-133	-	-
China	-6.8	Q1	-33.8	1.0	2.4	May	4.0	3.7	Q1§	0.8	-6.0	2.6	§§	-46.0	7.07
Japan	-1.7	Q1	-2.2	-5.2	nil	May	-0.1	2.6	Apr	3.4	-11.1	nil	-8.0	107	0.4
Britain	-1.6	Q1	-7.7	-8.7	0.5	May	1.0	3.9	Mar††	-2.2	-14.9	0.2	-67.0	0.80	-1.3
Canada	-0.9	Q1	-8.2	-5.1	-0.4	May	0.5	13.7	May	-3.4	-9.3	0.6	-91.0	1.36	-2.9
Euro area	-3.1	Q1	-13.6	-8.2	0.1	May	0.3	7.3	Apr	2.0	-8.6	-0.4	-14.0	0.89	-1.1
Austria	-2.9	Q1	-11.6	-6.0	0.7	May	0.7	4.8	Apr	0.1	-6.3	-0.2	-19.0	0.89	-1.1
Belgium	-2.5	Q1	-13.6	-7.9	0.5	May	0.5	5.6	Apr	-1.5	-7.7	-0.1	-17.0	0.89	-1.1
France	-5.0	Q1	-19.7	-9.9	0.4	May	0.4	8.7	Apr	-1.1	-11.0	-0.1	-17.0	0.89	-1.1
Germany	-2.3	Q1	-8.6	-5.8	0.6	May	0.8	3.5	Apr	5.4	-6.1	-0.4	-14.0	0.89	-1.1
Greece	-1.2	Q1	-6.2	-7.0	-1.1	May	-0.4	14.4	Mar	-3.0	-6.1	1.3	-119	0.89	-1.1
Italy	-5.4	Q1	-19.6	-10.8	-0.2	May	-0.2	6.3	Apr	2.0	-12.0	1.4	-81.0	0.89	-1.1
Netherlands	-0.2	Q1	-5.8	-6.0	1.2	May	0.9	3.8	Mar	4.0	-5.4	-0.3	-22.0	0.89	-1.1
Spain	-4.1	Q1	-19.4	-11.0	-0.9	May	-0.3	14.8	Apr	1.4	-10.7	0.5	7.0	0.89	-1.1
Czech Republic	-1.7	Q1	-12.7	-7.5	2.9	May	2.4	2.3	Apr‡	-1.3	-7.0	0.8	-73.0	23.7	-5.2
Denmark	-0.4	Q1	-8.0	-4.5	nil	May	0.4	5.4	Apr	5.3	-6.0	-0.3	-6.0	6.61	-0.8
Norway	1.1	Q1	-6.0	-5.5	1.3	May	0.2	4.2	Apr‡‡	1.6	-0.9	0.7	-78.0	9.59	-11.5
Poland	1.7	Q1	-1.6	-3.5	2.9	May	3.0	6.0	May§	-1.4	-5.2	1.4	-97.0	3.95	-5.6
Russia	1.6	Q1	na	-5.2	3.0	May	4.2	6.1	May§	0.2	-4.2	5.8	-174	69.2	-9.2
Sweden	0.4	Q1	0.5	-5.1	nil	May	0.5	9.0	May§	1.2	-4.4	nil	-3.0	9.31	nil
Switzerland	-1.3	Q1	-10.0	-6.0	-1.3	May	-1.0	3.4	May	7.1	-6.3	-0.4	9.0	0.95	2.1
Turkey	4.5	Q1	na	-5.9	11.4	May	11.2	13.2	Mar§	-2.1	-6.3	11.5	-477	6.85	-15.3
Australia	1.4	Q1	-1.2	-4.2	2.2	Q1	1.6	7.1	May	-2.5	-6.8	0.9	-38.0	1.45	-0.7
Hong Kong	-8.9	Q1	-19.6	-3.3	1.5	May	1.4	5.9	May‡‡	2.6	-5.3	0.7	-95.0	7.75	0.8
India	3.1	Q1	1.2	-5.8	5.8	Mar	3.4	23.5	May	-0.4	-7.4	5.9	-93.0	75.7	-8.4
Indonesia	3.0	Q1	na	1.0	2.2	May	1.3	5.0	Q1§	-1.4	-6.5	7.1	-34.0	14,140	nil
Malaysia	0.7	Q1	na	-5.1	-2.9	May	nil	5.0	Apr§	3.0	-6.8	3.0	-63.0	4.27	-3.0
Pakistan	0.5	2020**	na	-1.6	8.2	May	7.4	5.8	2018	-1.6	-10.2	8.6	†††	-553	167
Philippines	-0.2	Q1	-18.9	-1.3	2.1	May	1.6	17.7	Q2§	1.1	-7.6	3.4	-171	50.0	2.8
Singapore	-0.7	Q1	-4.7	-6.0	-0.8	May	-0.2	2.4	Q1	19.3	-13.5	0.9	-107	1.39	-2.9
South Korea	1.4	Q1	-5.0	-2.1	-0.3	May	0.5	4.5	May§	4.0	-4.7	1.4	-20.0	1,200	-3.6
Taiwan	1.6	Q1	-3.6	-2.0	-1.2	May	-0.8	4.2	May	11.9	-5.1	0.5	-21.0	29.5	5.3
Thailand	-1.8	Q1	-8.5	-5.3	-3.4	May	0.2	1.0	Mar§	3.4	-6.5	1.1	-77.0	30.8	-0.3
Argentina	-5.4	Q1	-18.0	-10.0	43.4	May‡	41.9	10.4	Q1§	1.4	-7.7	na	-464	70.1	-39.1
Brazil	-0.3	Q1	-6.0	-7.5	1.9	May	2.5	12.6	Apr§‡‡	-2.5	-16.3	2.0	-388	5.26	-27.4
Chile	0.4	Q1	12.7	-4.8	2.8	May	3.2	9.0	Apr§‡‡	-4.5	-11.0	2.2	-111	820	-16.7
Colombia	0.4	Q1	-9.2	-7.7	2.9	May	1.9	19.8	Apr§	-5.2	-7.1	5.8	-23.0	3,723	-14.0
Mexico	-1.4	Q1	-4.9	-9.2	2.8	May	2.6	3.3	Mar	-2.7	-4.6	6.0	-173	22.6	-15.0
Peru	-3.4	Q1	-19.5	-9.2	1.8	May	1.7	7.6	Mar§	-2.2	-13.2	3.9	-105	3.53	-6.5
Egypt	5.6	Q4	na	0.9	4.8	May	6.8	7.7	Q1§	-4.0	-11.0	na	nil	16.2	3.1
Israel	0.4	Q1	-6.8	-4.0	-1.6	May	-1.0	4.2	May	3.2	-11.3	0.6	-95.0	3.44	4.7
Saudi Arabia	0.3	2019	na	-5.2	1.0	May	1.2	5.7	Q4	-6.4	-11.2	na	nil	3.75	nil
South Africa	-0.5	Q4	-1.4	-7.0	2.9	Apr	3.6	30.1	Q1§	-2.6	-12.4	9.2	99.0	17.3	-17.0

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

Markets

In local currency	% change on:			index	% change on:		
	Jun 24th	one week	Dec 31st 2019		Jun 24th	one week	Dec 31st 2019
United States S&P 500	3,050.3	-2.0	-5.6	34,034.7	0.5	-16.4	
United States NAScomp	9,909.2	nil	10.4	2,628.6	-1.5	-18.4	
China Shanghai Comp	2,979.6	1.5	-2.3	2,161.5	1.0	-1.6	
China Shenzhen Comp	1,947.7	2.3	13.0	11,660.7	1.1	-2.8	
Japan Nikkei 225	22,534.3	0.3	-4.7	1,333.4	-3.1	-15.6	
Japan Topix	1,580.5	-0.4	-8.2	40,435.3	-0.1	-3.0	
Britain FTSE 100	6,123.7	-2.1	-18.8	94,377.4	-1.2	-18.4	
Canada S&P TSX	15,294.4	-0.9	-10.4	37,908.4	nil	-12.9	
Euro area EURO STOXX 50	3,196.1	-2.2	-14.7	11,039.5	1.2	-20.9	
France CAC 40	4,871.4	-2.5	-18.5	1,345.7	-4.9	-16.8	
Germany DAX*	12,093.9	-2.3	-8.7	7,213.4	-1.3	-14.0	
Italy FTSE/MIB	19,163.0	-2.2	-18.5	54,447.7	0.8	-4.6	
Netherlands AEX	557.3	-1.6	-7.8	2,180.1	-1.7	-7.6	
Spain IBEX 35	7,195.5	-3.8	-24.6	1,010.8	1.6	-9.3	
Poland WIG	50,479.6	0.3	-12.7				
Russia RTS, \$ terms	1,281.2	3.5	-17.3				
Switzerland SMI	10,022.0	-1.8	-5.6				
Turkey BIST	114,448.9	3.2	nil				

Dawn of an era

The Human Genome Project has transformed biology and medicine

TWENTY YEARS ago, on June 26th 2000, those running the public Human Genome Project and its private-sector shadow, a firm called Celera Genomics, decided to declare victory. In a simultaneous breasting of the tape, each published a “working draft” of the genome. The broker, Bill Clinton, hosted the chief scientists at the White House. Hyperbolic comparisons were made to the Apollo project to land people on the Moon.

Unlike Apollo, though, this announcement marked a beginning rather than an end. Genomics is now so embedded in biology that it is hard to recall what things were like before it. Those first human sequences cost billions of dollars to obtain. Today, with the advent of new technologies, a full sequence costs about \$200, and less detailed versions are cheaper still. It is as if, to use Apollo as the analogy, regular shuttles to the Moon had become available at prices an average family in the West could afford—and the more adventurous might now be considering a trip to Mars.

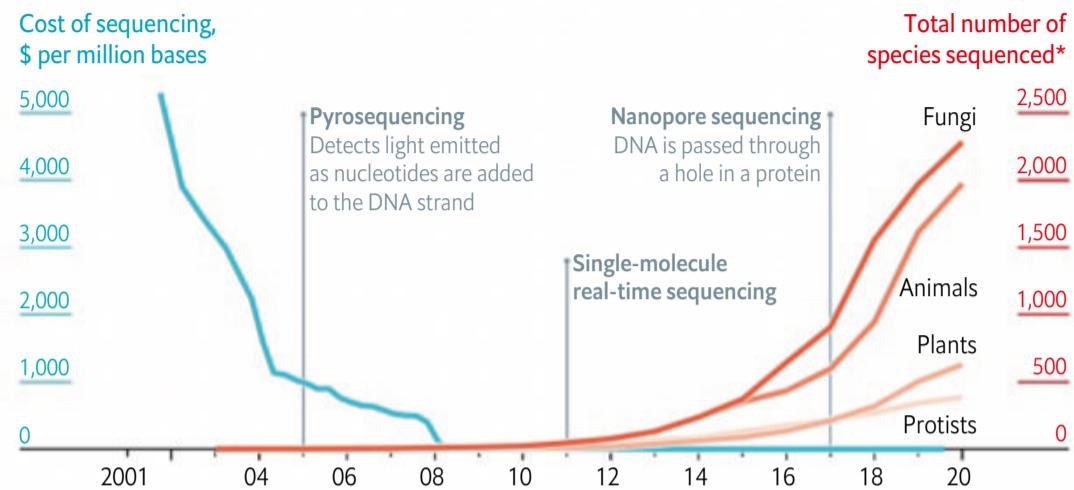
Researchers with a hypothesis to test can, for instance, turn to biobanks containing details of tens or hundreds of thousands of people—their medical records, education, employment and, crucially, data about their genomes. Private companies will also sequence genomes to varying standards, for a suitable price. It is probably the case, and if not, it soon will be, that more than 1m human genomes have been sequenced by one method or another.

Genomics also helps non-medical biology. Many non-human species, including crops and domestic animals, have had their genomes sequenced. Though tinkering directly with the genes of organisms that end up on people’s plates still makes some a bit queasy, that is increasingly unnecessary. Genomic knowledge can now be used to speed up selective breeding, without the need for genetic engineering.

At the other end of the scientific spectrum, what can be done for *Homo sapiens* can be done, using DNA from fossils, for other (now extinct) species of human being: the Neanderthals and Denisovans. There is a possible practical interest even here. Sequencing shows that these species once interbred with *Homo sapiens*. It also suggests that the traces of that interbreeding which remain may help the recipient to fight off infections, by combating viruses and boosting the immune system. ■

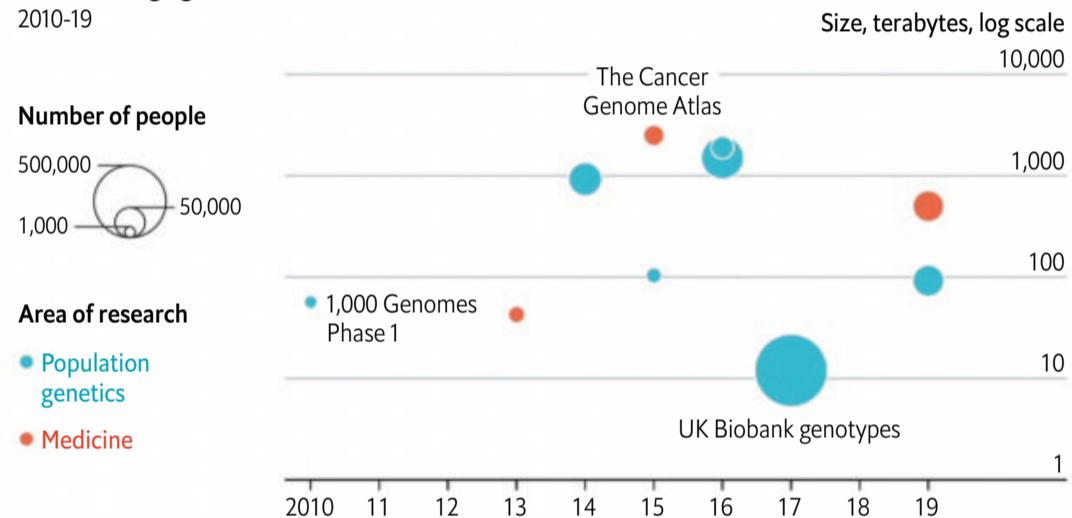
→ As the cost has come down, sequencing has spread beyond humans

Cost of sequencing and species sequenced



→ Genomes can be correlated with other data, for better medical knowledge

Selected large genomic datasets



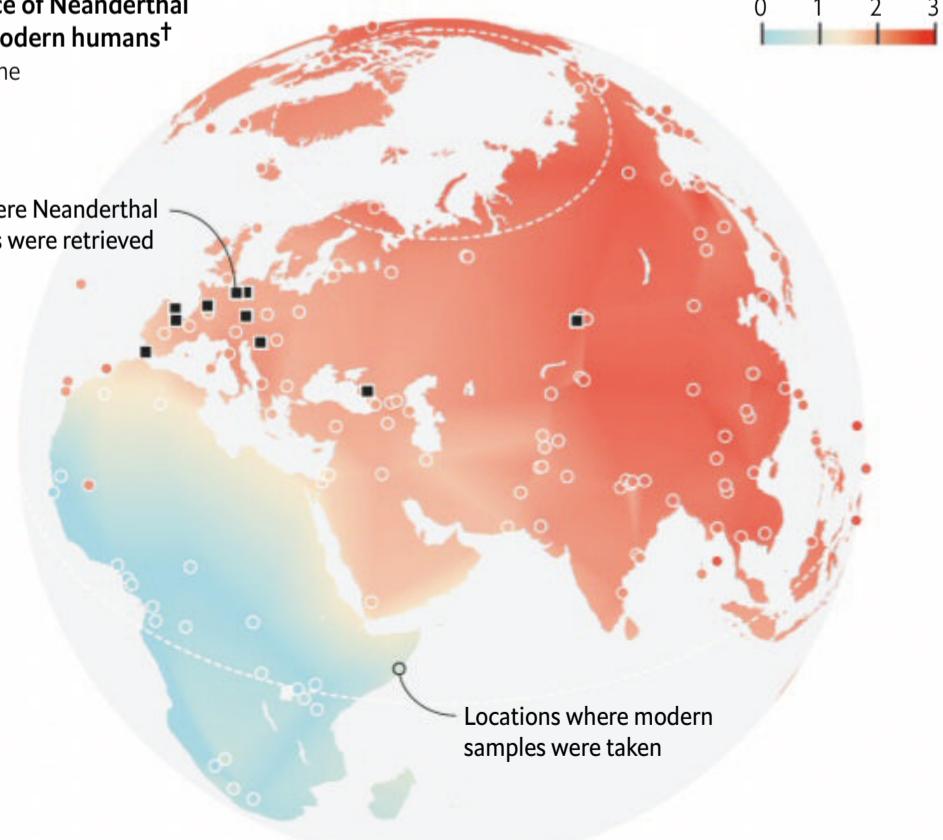
→ Sequencing can reach into the past, as well as the present

Prevalence of Neanderthal DNA in modern humans[†]

% of genome

Sites where Neanderthal genomes were retrieved

Sources: INSDC; NHGRI; Broad Institute; S. Peyrigné et al., *Science Advances*, 2019; S. Mallick et al., *Nature*, 2016
*Non-human eukaryotes since 2003 †Heat map interpolated from point data





Queen in all but name

Dame Vera Lynn, singer and entertainer, died on June 18th, aged 103

AS SOON AS her pay for singing with the Bert Ambrose band was doubled in 1938, Vera Lynn bought herself a fur coat. She also got a green Austin 10 with a soft canvas top, and a three-bed semi for herself and her parents in Barking. There she could soak in her very own big bath and go to the lavatory indoors. But the coat was the first thing she bought. It cost £75. Every young girl in the 1930s wanted that sort of coat, of course. And she also felt she needed it, even deserved it, for what she was doing. When it settled heavily on her shoulders, she felt like royalty.

She was always well aware of what she was worth. More than the 6/6d a week she got for sewing buttons in her first job; she left after a day. More than the £20 a week Ambrose paid her for being a "crooner", so she let him know she could get good work as a non-crooning soloist elsewhere. More than the dismissive look some people gave her because she was toothy and gawky and, when she opened her mouth, talked Cockney—or at least East Ham, which was not the East End, really Essex. And she was worth a lot more, when she started recording, than being just the "vocal refrain" on the b-side of a sixpenny Woolworth's record. Her ambitions were much bigger than that.

And why not? Her voice was clear and strong, a deep contralto, once songs were pitched low enough to suit it. Her enunciation was crisp and bright. And she had a real nose for a good song. When she went along to Denmark Street to browse through the publishers' sheet music, she could pick out a winner at once, by the words. She never could read music, but the tune was almost an afterthought. It was all about the feeling. If the lyrics had the right sentiment, were simple and from the heart, the song was right for her. She could believe in it then, and perform it with such complete sincerity that she moved her audience to tears.

So she proved during the second world war, when songs she'd found—"We'll Meet Again", "The White Cliffs of Dover", "There'll

Always be an England"—had an extraordinary effect on Britain. Her voice, whether on scratchy 78s, crackling through a wireless or live in London halls with sirens wailing outside, became the bluebird of "White Cliffs" that flew hopefully above the horrors. On Sunday evenings listeners at home and abroad were glued to her "letter to the forces", "Sincerely Yours", as she played requests and relayed messages. She so raised the morale of both the home front and the boys abroad that she was sometimes jokingly credited with winning the war all by herself. And it secured her a status so lasting that 80 years later, in another crisis, Britain turned to her again, giving her a billing and an affection second only to the queen's.

Not all approved of her wartime popularity. She was at the lowly end of the social scale, the daughter of a plumber and a seamstress, and if she didn't care about that, others did. It made some people shudder (as it had made her teachers shudder) that she had forged her teenage singing career in those terrible places, working-men's clubs. High-ups at the BBC called her songs "slush", and some generals and MPs complained that they might make soldiers desert. Her quick retort was to point to her postbag: 1,000 letters a week from servicemen, who adored her because she was ordinary, friendly and sisterly, the sort of girl they had left behind. What was more, they especially liked the sentimental songs. She knew they would. They were corny but home-bred, like a conversation between two people who found it hard to express their feelings to each other, as many ordinary English people did. *We'll meet again, don't know where, don't know when...*

She wasn't glamorous like the Hollywood stars, Betty Grable for example, whom the fighting men all lusted after. Nothing sparkled on her; she wore utility suits and, often, uniform. She was not remote; she brought home closer to the boys and, at home, she was in the fight with everyone else. She sang in factories, on airfields, and in the Underground during the Blitz. After concerts in London she would drive home in her Austin 10, a tin hat beside her in case shrapnel came through the roof. She popped over with flowers to hospitals where soldiers' wives had just had babies, to announce the good news on her show. And in 1944 she went out to the Far East to sing to her farthest-flung listeners in person.

It was her special duty, she felt, to cheer up boys who were forgotten. In Burma, the toughest part of the trip, she was one girl among 6,000 men. She swapped her flowing chiffon frock for shapeless khakis that at least kept the mosquitoes out, and sang until her make-up ran in the humidity and her voice became a croak. In camp she lived as the boys did, in a grass hut, washing out of a bucket. She drank tea with them, and sat on their beds in field hospitals to chat, even though the stench of gangrene almost overwhelmed her. The battle of Kohima was raging not far off, and she was game to record her songs against the gunfire. That was forbidden but, in any case, she was already the sweet voice of the war.

She traded on that for the rest of her long life. Any brave things she had done were brushed off, as she kept her Burma souvenirs (the tiny secret diary, the fresh-tugged bullet she was given by a surgeon) in a plastic bag stowed in a drawer. After all, she had been one among so many. But she went on singing the songs and working for forces' charities, and thus stayed firmly fixed in public hearts. Producers of her many concerts and TV shows, from the 1950s to the 1980s, often tried to update her. They persuaded her to wear modern gowns and to sing Lennon-McCartney and country music, both of which she rather liked. But if they dared to suggest that "White Cliffs" or "I'll Be Seeing You" were outmoded, she was horrified and offended. The songs summed up Britain in its finest hour. She—after 1975, Dame Vera—had to keep that memory alive.

The public certainly understood. Her appearances, even with her voice long gone, drew crowds who cheered her as warmly as ever. In chillier weather the regal fur came out again, if only as a hat. She would smile back in constant delight, regularly waving, as if she had been born to it. Women would sometimes curtsey to her, feeling it was right somehow. For this was like a queen passing. ■



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