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The folly of Buy American

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Can Boeing still fly?

Why people risk their lives for fun

JANUARY 30TH-FEBRUARY 5TH 2021









LOUIS VUITTON

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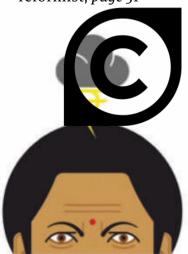
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Volume 438 Number 9230

Published since September 1843

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

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The world this week Politics



The spectre of vaccine nation**alism** stalked Europe as a row erupted between Britain and the European Commission over supply of the Astra-Zeneca-Oxford vaccine. Because of manufacturing problems at one of its European factories. AstraZeneca has said it will deliver less to the EU than it had planned in the coming months. The commission wants some of the shortfall to be made up with vaccine allotted for Britain. That risks breaching contractual obligations. But there are threats from the EU that if AstraZeneca does not agree, then supplies to Britain of other vaccines made in Europe, in particular the Pfizer jab, may be affected.

Large protests took place in Moscow and many other Russian cities, following the arrest of **Russia's** leading opposition figure, Alexei Navalny. There were thousands of arrests. More rallies are planned. The situation may come to a head when Mr Navalny appears in court on February 2nd.

Giuseppe Conte, the prime minister of Italy, tendered his resignation after losing his majority in the Senate. The country's president, Sergio Mattarella, embarked on a round of consultations to see if a new government can be formed, under Mr Conte or someone else. If not, a snap election may have to be called, though this will be the president's last resort.

Rioting broke out across the **Netherlands** after the government imposed a national curfew, the first since the Nazi occupation, to curb the spread of covid-19. Shops were looted and cars set on fire.

In **Mali**, French and Malian troops have killed more than 100 jihadists this month during an offensive in the north of the country. Mali has been battling jihadists since 2012.

Muhammadu Buhari, the president of **Nigeria**, replaced the country's highest military leaders amid mounting criticism of his government's response to a jihadist insurgency in the north-east.

Three senior government officials in **Zimbabwe** died after contracting covid-19. Among them was Sibusiso Moyo, the foreign minister, who became the face of a coup in 2017 that toppled Robert Mugabe. In **Tanzania** President John Magufuli falsely described covid-19 vaccines as dangerous and instructed his government not to rush to order them.

The Biden administration announced that it would restore diplomatic relations with the **Palestinians** and resume sending aid, reversing Donald Trump's punitive approach. The new government also reaffirmed America's support for a two-state solution to the conflict between Israel and the Palestinians.

Protests continued in **Tunisia**. Demonstrators are angry about a lack of jobs and police brutality. The parliament approved a cabinet reshuffle aimed at calming the unrest, but President Kais Saied indicated that he would reject the new ministers, saying some have conflicts of interest and noting the absence of women.

Canada's governor-general, Julie Payette, resigned after allegations that she had verbally abused her employees. Ms Payette, a former astronaut, was the Canadian representative of Queen Elizabeth, Canada's head of state.

The FARC, which fought a 52-year guerrilla war against the Colombian state until 2016 and then became a political party, changed its name to the Common People's Party, or Comunes. Many Colombians blame the group for a war that killed perhaps 220,000 and displaced 7m. Comunes will be "the party of peace, reconciliation and love for life", tweeted its spokesman.

Carlos Holmes Trujillo, Colombia's defence minister, died with covid-19. He was seen as a possible successor to the president, Iván Duque. Mexico's president, Andrés Manuel López Obrador, and the country's richest man, Carlos Slim, also contracted the disease.

Chinese and Indian troops again clashed on the border between the two countries, in the Indian state of Sikkim. Last year the two sides skirmished repeatedly on the fringes of the Indian part of Kashmir.

Farmers protesting against free-market reforms stormed the Red Fort in **Delhi**, prompting widespread condemnation. Hundreds of thousands of protesters have been camped around India's capital city since November.

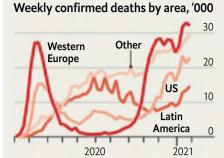
The prime minister of

Mongolia resigned after protests against the treatment of a new mother with covid-19 at a government hospital, and over the broader handling of the pandemic. A close ally from the ruling Mongolian People's Party has taken the job.

Only five Republican senators joined Democrats in a vote that will allow the **impeachment trial** of Donald Trump to proceed. The lack of support from Republicans suggests that the two-thirds majority required in the Senate for a conviction does not exist. The trial is due to start on February 9th.

Mr Biden issued more executive orders overturning the edicts of Mr Trump. Among them was a reversal of a ban on transgender people from serving in the armed forces. The president also signed a series of actions to improve "equity" in policing, prisons and public housing.

Coronavirus briefsTo 6am GMT January 28th 2021



Vaccination doses				
	Thi	is week, '000	Total '000	Per 100 people
	Israel	1,200	4,253	49.13
	UAE	634	2,764	27.95
	Seychelles	11	21	21.00
	Britain	2,402	7,639	11.25
	Bahrain	na	144	8.47

United States 23.541 7.207 7.11 Malta 22 5.07 8 Bermuda 2 3 4.71 Serbia 4.70 145 320 Iceland 4.55

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

The cumulative number of recorded **infections** worldwide reached 100m. The true figure is thought to be much higher.

In **Britain** the recorded death toll passed 100,000, the world's fifth-highest and far ahead of other European nations. England's lockdown will last until at least March 8th. Restrictions at the country's borders were tightened.

With infections falling, **Cyprus** is to ease its lockdown, allowing schools to reopen on February 8th.

The White House banned non-American travellers from **South Africa**, where a virulent strain of the disease has been discovered, from entering the United States.

The International Olympic Committee said that the postponed games in **Tokyo**, scheduled to start on July 23rd, will definitely go ahead.

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

The world this week Business

America's tech giants reported quarterly earnings. **Apple** smashed analysts' expectations, reporting record revenue of \$111.4bn and a net profit of \$28.8bn. Sales rose across all regions—the biggest gains were from China—and across all of Apple's products and services. Revenues from the iPhone, which have waned in recent years, were up by 17% year on year.

Facebook also reported record quarterly revenues. **Tesla** made its first-ever annual net profit, of \$721m.

Home office reform

Satya Nadella, **Microsoft's** chief executive, described the switch to home working and attendant need for cloud computing as a "structural change" that would outlive the pandemic. Revenue from the company's Azure cloud platform helped push quarterly net profit to \$15.5bn, up by a third year on year.

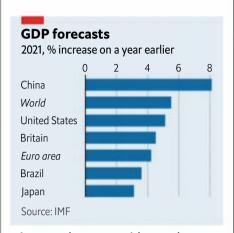
An ever-louder buzz surrounded the forthcoming IPO of **Kuaishou**, the closest rival to TikTok (known as Douyin in China). The Chinese firm's flotation in Hong Kong may be the biggest tech IPO since Uber.

Solid revenues from investment banking and wealth management underpinned a rise of 54% in annual net profit at **UBS**, to \$6.6bn. The Swiss bank announced a big share buy-back programme.

Andrea Orcel was appointed chief executive of **UniCredit**, Italy's biggest bank. One of Europe's best-known bankers, Mr Orcel is close to reaching a settlement with Santander, Spain's biggest lender, for withdrawing its commitment to hire him as its CEO.

The American Treasury delayed until May 27th the date from which Americans are barred from investing in firms with alleged ties to **China's** military. It is reviewing the list complied by the Pentagon under Donald Trump.

Boeing reported an annual net loss of almost \$12bn. It also delayed deliveries of its new 777x jet until late 2023. Its 737 MAX aircraft has only recently been cleared for take-off (Britain and the EU did so this week) after a 20-month grounding.



The IMF increased its estimate of **global GDP** growth this year, to 5.5%. It urged countries to co-operate across all regions and income levels to bring covid-19 under control. The fund thinks that making vaccines widely available, along with other measures, could bring local transmission down to safe levels everywhere by the end of 2022.

Merck decided not to proceed with production of a **covid-19 vaccine**, following disappointing results from clinical experiments. Meanwhile, Johnson & Johnson was close to announcing the efficacy data for the vaccine it has developed, which could be a single-dose jab, a potential game-changer in many countries' inoculation programmes.

strategy. The world's biggest fund manager is now asking the companies it invests in to show how they would comply with a "global aspiration" of net zero greenhouse-gas emissions by 2050. If any of its holdings in an actively managed portfolio "pose significant climate risk", they will be flagged for sale.

Shell agreed to buy Ubitricity, the biggest provider in Britain of street charging points for electric cars, such as those in lampposts. The energy company, which already operates fast-charging points in petrol stations, is investing heavily in smart-mobility infrastructure.

The share price of AMC, the world's biggest cinema chain, jumped by 300% after speculators bet it had enough funding to survive the next year. Underlining the disruptive effect of streaming on filmviewing habits, AT&T wrote down the value of its pay-TV business by \$15.5bn, as subscribers continued to abandon the service.

A Swiss court sentenced **Beny Steinmetz** to five years in prison, after he and two colleagues were convicted of paying bribes to the wife of a former president of Guinea in order to gain rights to explore for iron-ore deposits. The complex case stretches back over a decade, to when the mining group owned by Mr Steinmetz's family obtained the rights. Multinational mining companies have also been ensnared in related corruption charges. Mr Steinmetz will appeal against his conviction (it is unlikely that he will serve any actual time).

No longer being served

The doors of **Debenhams** department stores in Britain are to be shut for ever, as a deal emerged to buy the distressed company's name and associated brands. Boohoo, an online retailer, has snapped up the assets, but does not want the stores. Separately Asos, another online outfit, is negotiating the acquisition of Arcadia's brands, which include Topshop and Miss Selfridge, and also does not want to buy any shops. Both high-street retailers were in trouble long before covid-19 came along; lockdowns only compounded their problems.





Who will go nuclear next?

The world is facing an upsurge of proliferation. To stop it, nuclear powers need to act

THIRTY-ONE countries, from Brazil to Sweden, have flirted with nuclear weapons at one time or another. Seventeen launched a formal weapons programme. Just ten produced a deliverable bomb. Today nine states possess nuclear arms, no more than a quarter-century ago. Yet the long struggle to stop the world's deadliest weapons from spreading is about to get harder.

In the past 20 years most countries with nuclear ambitions have been geopolitical minnows, like Libya and Syria. In the next decade the threat is likely to include economic and diplomatic heavyweights whose ambitions would be harder to restrain. China's rapidly increasing regional dominance and North Korea's growing nuclear arsenal haunt South Korea and Japan, two of Asia's largest powers. Iran's belligerence and its nuclear programme loom over the likes of Saudi Arabia and Turkey (see Briefing). Proliferation is not a chain reaction, but it is contagious. Once the restraints start to weaken they can fail rapidly.

The nuclear omens are bad. Arms control between America and Russia, which saw cuts of 38,000 warheads—a 79% fall—in 1991-2010, has dwindled. On January 26th Presidents Joe Biden and Vladimir Putin agreed to extend the last remaining pact, the New START treaty, for five years. That is welcome, but prospects for a follow-on are dim. China, India, North Korea and Pakistan are all expanding and modernising their nuclear forces. There is

dismal progress towards global disarmament, the ultimate aim of the Non-Proliferation Treaty (NPT), the cornerstone of the nuclear order. A new treaty banning the bomb, which was signed by 86 countries and came into force on January 22nd, channels the frustration among nuclear have-nots. It accomplishes little else.

If nuclear weapons are not going away, and security threats are worsening, some states will

be tempted to pursue a bomb of their own. In decades past America kept nuclear aspirants in line, threatening to withdraw security guarantees from errant friends, like Taiwan, and using sanctions and military force to dissuade enemies, such as Iraq. Yet the currency of American power is weaker today. Donald Trump's tempestuous term has sown doubts about America's appetite to defend allies and enforce rules. They will linger, however much Mr Biden seeks to restore an orthodox foreign policy.

Consider the nuclear umbrella that America extends over Asian allies. It amounts to a promise that, should North Korea or China strike Seoul or Tokyo, America would retaliate against Pyongyang or Beijing. For decades, America could issue that threat confident that its own cities were out of range of North Korean missiles. Now they are not. An American strike on Pyongyang would put San Francisco at risk. That may make Mr Biden reluctant to act—a calculation that could embolden Kim Jong Un to attack Seoul. No wonder that, particularly in times of crisis, most South Koreans say that they would like to see a return of the American tactical nuclear weapons withdrawn from their soil in 1991 or, failing that, an indigenous South Korean bomb.

In democracies like South Korea, Japan and Taiwan, nuclear ambitions are tempered by political reality. The Middle East is different. The nuclear deal curtailing Iran's nuclear programme is collapsing. Even if Mr Biden revives it, many of its provisions expire in a decade. Should Iran at any time look as if it is contemplating going nuclear, Saudi Arabia will not want to fall behind. Muhammad bin Salman, the Saudi crown prince, has few domestic checks on his authority and ambitious plans for nuclear technology. Turkey could well follow.

If the nuclear order starts to unravel, it will be almost impossible to stop. Hence the importance of acting today. America, China, Europe and Russia share an interest in stopping proliferation. Russia does not want a nuclear Iran any more than America does. The prospect of a nuclear-armed Japan would be among China's worst nightmares. The Iranian nuclear deal in 2015 showed that rivals can muster a response to proliferation.

The nuclear states should start with the basics. America and Russia still have 90% of the world's nuclear warheads, so any effort begins with them. Now that New START will be extended, they should begin work on a successor that would include other weapons, such as hypersonic gliders and lower-yield warheads, which Russia has in abundance. More radical ideas should also be discussed. America operates a triad of nuclear forces: silos on land, submarines at sea and bombers in the air. Retiring the land-based missiles would demonstrate genuine progress towards disarmament, without eroding deterrence.

Arms control between America and Russia might persuade China that its existing arsenal could survive an attack, helping avoid a destabilising surge in its forces. Chinese restraint would, in turn, reassure India and Pakistan.

America's most important role in calming nerves over North Korea and Iran remains its value as an ally, and here Mr Biden has already promised to repair ties. Even if one presidency

is not enough to restore confidence completely, Mr Biden should make a start by reaffirming and strengthening America's nuclear umbrella over Japan and South Korea. That includes the role of American troops on the ground, who serve not only as a line of defence but also as an assurance to allies and a warning to enemies that America could not sit out a conflict.

Stopping proliferation also requires spotting it. Intelligence agencies have understandably focused on the familiar gallery of rogues, like Iran. Their gaze should widen to include early warning of shifts in nuclear technology, public opinion and political intentions in such places as South Korea or Turkey. The International Atomic Energy Agency, the world's nuclear watchdog, does a commendable job of monitoring civilian nuclear sites and policing Iran's programme with the strongest inspections regime ever instituted. Yet the agency is overburdened and underfunded, and needs to keep up with technological change.

Heed the doomsday alarm clock

The world has plenty on its mind. Even so, it cannot afford to downplay the dangers of nuclear proliferation. Today's nuclear diplomacy may seem a slog, but it is as nothing compared with the lethal instabilities that arise whenever regional nuclear-armed rivals confront each other. There is no time to lose.

NON-COMMERCIAL USE PERMITTED

Shot in the foot

Fussy decision-making has slowed Europe's vaccine roll-out—and threatens its economy

THE MOOD in the European Union is grim. Only 2% of its people have been vaccinated, compared with 7% in America and 11% in Britain (see Europe section). The slower the roll-out, the more die and the greater the economic harm will be.

Hence news that AstraZeneca (AZ), an Anglo-Swedish vaccine-maker, may supply less than 40% of the doses the EU expected in the first quarter has sparked fury. Amid the recriminations, politicians are arguing that, if AZ refuses to make up some of the shortfall with supplies from its plants in Britain, then the EU should retaliate by stopping exports to Britain from plants in continental Europe. That would be a grave error. There are better ways for Europe to speed up vaccination. They need to be taken as urgently as efforts to stop another economic slump.

Europe's problems stem partly from bad luck. One of the vaccines it ordered suffered setbacks in clinical trials. Others have hit teething problems in production. But they are also self-inflicted. The European Commission took charge of buying vaccines, but it was inexperienced and slow, signing deals months after Britain. It got bogged down in haggling with drugs firms over liability and price—mere details in a

pandemic. The contract with Az is confidential, but it seems to stipulate only that the firm makes best efforts to supply doses.

Threatening drugs firms and nations is a way to vent frustration, but it is dangerous. Were the EU to embargo supplies of the Pfizer vaccine, it would prevent Britons from receiving their second dose, because Britain has delayed the booster. Were every country in the intricate vaccine supply chain to threaten trade in everything from specialised glass to syringes, global vaccine supplies could choke. The EU would be sabotaging its claim to stand for the rule of law, the ultimate source of its authority. It would do better to focus on ironing out vaccine logistics, to offer firms help and to consider adopting the British strategy of delaying the second dose until supplies are more plentiful.

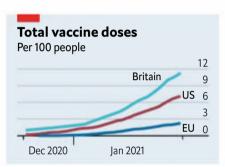
The economic consequences of Europe's vaccine lag also need to be dealt with urgently. Levels of economic activity will suffer in the first half of this year, and the recovery will be pushed back still further. That will impose more pain on workers and firms, and also raises the risk of prolonged stagnation. Low growth and low inflation could become a permanent feature of the euro area, rather as they are in Japan. The IMF's new forecasts suggest that the euro-zone economy will remain 6% below its pre-covid trend by the end of this year (see Finance section). Investors expect inflation in five years' time to languish at a puny 1% or so. By contrast America's output is expected to be back on track by then, with inflation of over 2%.

You might think that Europe's leaders would be unveiling big

spending plans. Across the Atlantic, the White House hopes to unleash nearly \$2trn in stimulus, stoking fears of overheating later in the year. The EU has agreed on a €750bn (\$900bn) recovery fund, to be financed through jointly issued debt. But this is being disbursed too slowly, so there is still too little stimulus in the euro area. Its fiscal deficit is forecast to narrow by more than two percentage points this year, in part as

temporary measures expire. There is no point in relying on the European Central Bank to step in: it has run out of ammunition and has little capacity to stimulate the economy more.

To avoid becoming like Japan, Europe must spend like America. This is sinking in at last. Helge Braun, an adviser to Angela Merkel, this week warned that Germany's "debt brake", which aims to limit public borrowing, may not be restored for years. Bruno Le Maire, France's finance minister, has called for Europe's budget rules to be "re-evaluated to take into account reality". Still, the danger is that Europe takes too long to respond. Ponderous decision-making has already slowed Europe's vaccine rollout. That will take a toll in lives and livelihoods. All the more reason to ensure that red tape does not delay the recovery, too.



World trade

The folly of Buy American

President Biden's protectionism sullies his economic agenda

MOVAL Office for long before reaching for the pen. Since entering the White House on January 20th Joe Biden has signed nearly 40 executive orders and proclamations. Many are welcome; some are crucial. He is overturning some of the harshest immigration restrictions imposed by Donald Trump and restoring America's support of the Paris agreement on climate change (see United States section). One of Mr Biden's edicts, however, is an early economic-policy mistake: the tightening of rules obliging America's federal government to prefer domestic suppliers to foreign ones. It could be a sign of worse errors to come.

The "Buy American" agenda is long-running. A law passed in 1933 requires the federal government to prefer domestically produced goods to foreign ones; it is reinforced by an unwieldy mass of similar state and local rules. The stimulus Mr Biden oversaw as vice-president after the global financial crisis targeted American suppliers with American supply chains. President Trump issued reams of executive orders aiming to favour domestic firms over their foreign competitors. One of his rule changes, which raises the bar for an item to be considered American-made and increases the mark-up over global prices which domestic firms can charge, has still to come into effect.

Mr Biden campaigned on going further than Mr Trump, whom he castigated for not doing enough. It will take more than a stroke of the pen to fulfil that promise. As past administrations have discovered, America's commitments to the World Trade Organisation (wto) constrain its ability to discriminate in favour of its own firms (see Finance section). As a result, Mr Biden's order only fiddles at the margins, confirming Mr Trump's last changes, giving the White House more oversight of exemptions from the rules and introducing a vague new requirement that Washington's purchases should promote employment.

Yet the president has the support in Congress to go further if he wants to. He has promised a diplomatic effort to modernise code for weaken—the wto rules. And they can in any case be circumvented by sending money to states and attaching conditions on how they spend it, which is how the Democrats might structure their stimulus and infrastructure spending.

Presidents and voters like Buy American because they think it creates jobs. In a direct sense, it does. But by locking firms out of global supply chains and shielding them from competition it promotes inefficiency, destroying more employment than it creates. By one estimate America would gain a net 300,000 jobs if it got rid of its local-content rules.

There is no evidence that buying at home boosts innovation either, whatever its advocates might claim. In fact, it almost certainly hampers productivity increases in the long term. And coddling local firms is a raw deal for taxpayers. From February American firms will be able to charge their government up to 20% more than prevailing global prices.

Perhaps the sturdiest economic rationale for buying local is that it stops the short-term stimulatory effect of new spending—of which Mr Biden is planning a lot—from leaking overseas. But that should not be a big concern for America in 2021 because its stimulus is so enormous. Were Mr Biden's \$1.9trn spending proposal to pass, it would take America's cumulative pandemic spending to more than a quarter of its pre-crisis GDP (before considering the additional effects of any infrastructure bill). America can afford a little leakage. In any case, the lesson from 2009 is that requirements to buy American hamper stimulus by forcing firms to look for new suppliers before they can start projects. It is not encouraging that Mr Biden's order will make it still harder to obtain exemptions from the existing mountain of red tape.

It is a relief that, unlike Mr Trump, Mr Biden supports the rules-based system of global trade. He will not sabotage the wto or go out of his way to antagonise America's allies, whom he wants to rally against China. But his soft protectionism—which, thanks to the Trumpification of the Republican Party, is more popular in Congress than it has been in decades—will rankle the outside world; the European Union, which recently reached an investment agreement with China, is already bristling at his executive order. In his instincts about the economics of trade, America's new president is not so different from his predecessor. That is bad news for America and for the world.

The Palestinians

Time for Abbas to go

New leadership is needed both in the West Bank and in Gaza

AHMOUD ABBAS really knows how to show Israel the stuff M he is made of. When the Israeli prime minister, Binyamin Netanyahu, mulled annexing parts of the West Bank last year, the Palestinian president stopped accepting transfers of tax revenue that Israel collects on behalf of the Palestinian Authority (PA). The move left the PA short of hundreds of millions of dollars and forced tens of thousands of civil servants to take salary cuts. Yet even after Israel suspended talk of annexation in August, Mr Abbas persisted with his protest. Only in November, facing a selfinflicted cash crunch, did he quietly relent.

This is what passes for leadership in the occupied territories. Though Israel bears much blame for the suffering of its neighbours, the pain is compounded by the self-defeating policies of Palestinian leaders. The stubborn men who rule the West Bank and Gaza often seem more concerned with preserving their own power than with improving their people's lives

(see Middle East & Africa section). Palestinians deserve better.

True, the PA, which runs the West Bank, has been making some more encouraging noises of late. It has resumed co-operating with Israel on security and plans to reform its policy of giving money to the families of Palestinians whom Israel jails for such things as murdering Israelis—which American politicians tastelessly call "pay for slay". Most important, Mr Abbas has announced that legislative and presidential elections will be held in May and July, after 15 years without a vote.

But can anyone trust Mr Abbas? He is in the 17th year of a fouryear term as president. He has announced elections before, only to call them off. If they do take place, they will probably be a stitch-up between Fatah, Mr Abbas's party, and Hamas, the militant Islamist group that runs Gaza. The past decade and a half has shown that neither is fit to govern.

The last time the Palestinians went to the polls, in 2006, Hamas beat Fatah in legislative elections. That led to a civil war which left Hamas in control of Gaza. The militants have since

> turned the territory into a corrupt, oppressive and miserable one-party state. They blame Israel's blockade of Gaza for the fact that jobs, electricity and drinking water are scarce, which is fair enough. But it is the militants who hog precious resources and store weapons on civilian sites, making them targets. Their attacks on Israel achieve little besides prolonging their own people's misery.

Things are better in the West Bank, but not much. It too resembles a one-party state, under Fatah. Mr Abbas rules by decree, with no hint of accountability. Though he is 85, he refuses to groom a successor, lest it speed his long-overdue departure. The president and his geriatric coterie of loyalists inspire little confidence, even from putative allies. "With those people, it's hard to trust them or to think you can do something to serve Palestine in their presence," said Prince Bandar bin Sultan, a former Saudi spy chief, on Saudi television last year.

Israel, to its shame, fosters Palestinian dysfunction. Its blockade of Gaza, with Egypt's co-operation, has turned the territory into what many see as "an open-air prison". Mr Netanyahu shows no interest in a fair peace deal. Nor do any of the contenders vying to replace him in an election scheduled for March. A popular rival, Gideon Sa'ar, has called the two-state solution an "illusion". No wonder a sizeable number of Palestinians favour confronting Israel through armed intifada.

Israel, however, is not to blame for the failure of Fatah and Hamas to reconcile with each other. Nor is its blockade the only reason life is so grim for Palestinians. Their own leaders have failed them. In the midst of a pandemic, they have not bothered to ask

Israel to share its supply of covid-19 vaccines. President Joe Biden has promised to renew aid to the Palestinians and restore diplomatic ties (broken by Donald Trump), but he can or will do only so much for them while they have such awful leaders.

Mr Abbas and his counterparts in Hamas should step aside for fresher, less tainted faces. Ordinary Palestinians should have a free, fair chance to pick a new government. There is no guarantee that this will make things better. Opinion polls are unclear and many voters still find militancy appealing. But there is little chance of meaningful reform unless today's leaders step down. Voters should be allowed to choose a new government, and to sack it after four years if it blunders.

America in Asia

Free not to choose

In its rivalry with China, America should not force Asians to pick sides

No Part of the world matters more to America's interests than Asia, and no part stands to lose so much from an American retreat: ever since its victory over Japan in the second world war, the United States has underwritten not just Asia's security but also its remarkable prosperity, based on trade and relatively open markets. America's standing in the region ought, therefore, to be high. Yet four years of Donald Trump have damaged it—and prompted some Asians to ask how sensible it is to rely on America to uphold the international order in their region.

Mr Trump's people understood one big thing: that authoritarian China poses a direct challenge not only to American supremacy in the western Pacific but also to the economic order that it has underpinned. The good news is, given China's pushiness in the South China Sea, its nibbling away at India's territory in the Himalayas, its belligerence towards Taiwan, its repression in Xinjiang and Hong Kong, its reluctance to open its own market

and its habit of attaching strings to development aid, none of China's neighbours wants it to call all the military and economic shots. The bad news is, even with a new American administration in place, it will be difficult to persuade those neighbours to do anything that will rock the boat, given China's growing clout and America's diminished standing. In fact, the trick for President Joe Biden will be to restore faith in

America without asking Asian countries to take its side openly against China.

This is where the Trump administration's approach fell flat. In private Asian leaders welcomed its frequent "freedom of navigation" operations as a way of rebuffing China's attempts to turn the South China Sea into its own lake. But they felt ignored or—worse—exploited by America in its arguments with China. Mr Trump trash-talked allies, especially South Korea and Japan, and threatened to withdraw American troops from their soil if the pair did not pay a lot more towards the costs of deployment. Some in Taiwan worried that Mr Trump's main interest in their country was as a means to poke China in the eye. When Mike Pompeo, his secretary of state, did remember the medium powers of South-East Asia, it was to demand that they should sign up to the administration's ideological campaign to demonise "Communist China". For governments in South-East Asia, which have

long tried to safeguard their autonomy by hedging and balancing between great powers, openly taking sides is anathema. Mr Pompeo came across as smashing up the bar before closing time.

What is more, America's interest in Asian security came alongside an assault on the free-market principles that it did so much to instil and that have so benefited the region. On his fourth day in office, with bipartisan support, Mr Trump pulled America out of the Trans-Pacific Partnership (TPP), a 12-country free-trade deal. China pushed ahead with a different pact, the Regional Comprehensive Economic Partnership, which it and 14 other Asian countries signed in November. The symbolism in terms of economic leadership could scarcely be starker.

Mr Biden's team promises to be more tactful. It is stuffed with knowledgeable Asia hands, of the sort his predecessor despised (see Asia section). Just sending experts or political heavyweights as ambassadors instead of party donors hoping for a junket

would help; so would attending tedious ASEAN talking-shops at which China scores an easy win because the United States does not show up.

But even a more engaged America will struggle to place itself back at the heart of Asian discussions on supply chains, technology standards and investment regimes. Mr Biden has made it clear he is not in a rush to sign any trade deals at all, much less re-embrace TPP. What is

more, there are bound to be other frictions with Asian countries. The new president, understandably, wants human rights at the heart of his foreign policy, and he is right to condemn China for its egregious abuses. But the records of some of America's friends are not much better, and their governments are prickly about criticism.

In other words, America, like China, is not the perfect ally in the eyes of many Asian countries. The countries of the region have no choice but to deal with both. Asians have grown used to American engagement as a counterweight to an overweening China, but fear being dragged into a fight. It would be better if Asian countries wanted to work with America in its own right, because they are drawn to American innovation, economic vitality, openness and moral coherence. America should aspire to be more than a security hedge against China. Asia would be a safer and more prosperous place for it.



Executive focus 13



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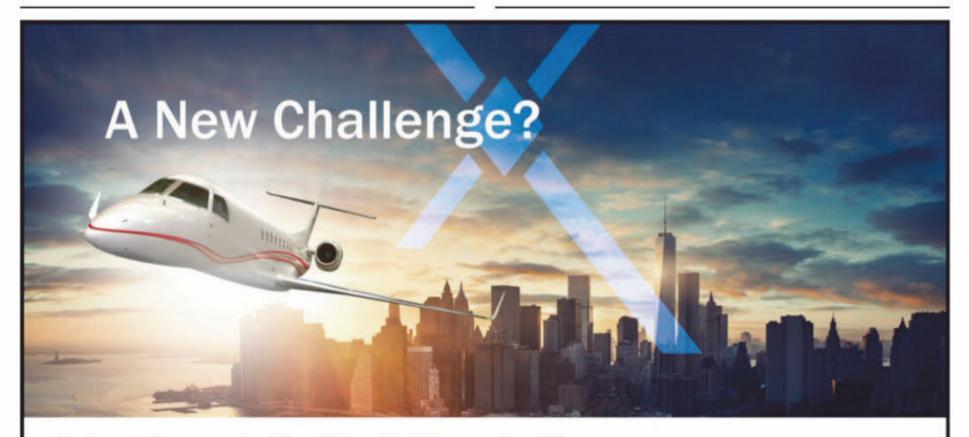
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Letters

January 6th and all that

Donald Trump did not whip up the mob that stormed the Capitol building ("The reckoning", January 16th). During his speech near the White House he urged his followers to cheer on members of Congress who were objecting to and debating the electoralcollege count (Democrats in the House of Representatives also disputed the count following the 2000 and 2004 general elections). Never did Mr Trump call for violence, or tell his supporters to storm Congress. Condemning the entire rally as an insurrection ignores the fact that the vast majority of the people there were exercising their constitutional rights to assembly and speech.

Extremists who show up to rallies are not part of the wider movement. Last year, while cities across America burned and were looted, we were lectured about not blaming the "peaceful" protests for the criminal actions of the rioting crowds. True supporters of Mr Trump denounced the violence, just as they did in places like Kenosha, Minneapolis, Portland and Seattle. Many Democrats can make no such claim. Nancy Pelosi actually described law enforcement officers who were defending a courthouse under constant siege as "storm troopers". Some in her party openly called for unrest. Did The Economist denounce those politicians? Have their social-media accounts also been closed down?

Violence to bring about political change is never justified. Extremism on both the left and right should be condemned. D. CHARLES BOGAN Santa Fe, New Mexico

You raised the possibility that the Supreme Court may have to determine whether Mr Trump's impeachment trial and possible conviction are valid, now that he has left office.

Maybe. But in the early 1990s, Walter Nixon, an impeached federal judge, sought a judicial review of the process by which the Senate

had convicted him. William Rehnquist's opinion for the court in 1993, joined by Clarence Thomas, noted the absence "of a single word in the history of the constitutional convention or in contemporary commentary that even alludes to the possibility of judicial review in the context of the impeachment powers." The opinion included the broad statement that "judicial review would be inconsistent with the Framers' insistence that our system be one of checks and balances."

Mr Trump's lawyers could make arguments that his case was distinguishable. However, they would be facing strong headwinds. THOMAS D. ROWE, IR Professor of law emeritus

Duke University

Durham, North Carolina

"Madison's nightmare" (January 16th) proffered Plato's "Republic" as a meditation on the evils of mob rule. As an alternative, I would suggest Plato's earlier "Gorgias". It examines the politics of manipulation and the skills of persuasion and lying. Unlike the "Republic" it has no uplifting conclusions. It ends with a bitter unresolved argument between Socrates and Callicles, a young ambitious Athenian aristocrat who argues that "the strong" should rule over the "weak masses" with "charms and incantations".

"Gorgias" has the virtue of being a brilliant dissection not of the mob but of the motivations, techniques and dangers of people who would exploit the "many-headed-monster" for their own power, wealth and ego. Dealing with that situation would seem to be the real challenge of this particular moment.

M. MACKENZIE Montreal

I am disappointed that a publication of your erudition feels the need to use the informal "mobocracy", when a perfectly good word, "ochlocracy", already exists. **COLIN MCALLISTER** St Andrews, Fife

The missing cabbages

Your article on private art collectors in Britain raised various issues, but the concluding lines were peculiarly revealing of a metropolitan bias ("Wall power", January 16th). It is not just that much of the Willoughby de Eresby art collection has anyway been on show, or that the Lincolnshire "flatlands" are also home to the paintings at Belvoir and Belton, and other kinds of "culture" besides. But that if you walk in the extensive and "undulating" grounds of Grimsthorpe Castle, you never catch even a glimpse of a cabbage, a vegetable which, you say, the surrounding land is "rich in". PENELOPE CURTIS London

A business backwater

You were spot-on about the prospect of "an eternity of negotiations" with the European Union that awaits Britain, as experienced here in Switzerland ("Britain's Swiss role", January 2nd). In 1990, 60% of America's top 20 companies based their European headquarters here (Dow, DuPont, General Motors, Hewlett-Packard, IBM and so on). Then in 1992 Swiss voters voted against joining the extended European Community (the Norwegian option).

Roll the clock forward and only one of the 20 most-valuable American companies has its headquarters here. Dow, ıвм and others have stuck around, but have declined in relevance. Others gradually left or were absorbed. The Swiss American Chamber of Commerce has become a kind of museum.

The most vibrant companies, such as Airbnb, Amazon, Apple, Fanuc, Samsung, Stripe, Snowflake and Uniqlo, chose not to come here. Instead they went to Amsterdam, Dublin, and London. They will not return to Switzerland without unequivocal access to the second-most important market in the world. Though the decline has been imperceptible, it has left a void in the

Swiss economy more measurable in loss of potential than productivity. The next big thing in artificial intelligence, payments, or internet sharing will not be spawned in Switzerland because there is no mothership to spin it off.

I suspect the case will be similar for Britain. The grass grows more quickly and quietly than we think. If a country is unable to attract promising technologies and competitive companies, if it cannot provide them with free access to markets and talent, how can it remain vibrant and prosperous? Museums don't produce many high-paying jobs. R. JAMES BREIDING Zurich

A man for all seasons

Your appreciation of Desiderius Erasmus was timely ("Citizen of the world", December 19th). Described by Diarmaid MacCulloch as "the patron saint of networkers, as well as of freelance writers", a timetravelling Erasmus might easily find his bearings in today's Europe. The covid crisis would be eerily familiar to him, having lost his parents to the plague. So would the antivaxxers and conspiracy theorists in their resemblance to medieval quacks. But observing scientific efforts to tackle humanity's pressing problems, he'd find himself vindicated in his belief in the reasoning faculties of the human mind. CHRISTOPHER STEHBERGER Traunstein, Germany

Erasmus would have loved the fabled moderate chant of English protesters: "What do we want?" "Gradual change!" "When do we want it?" "In due course!" RICHARD WAUGAMAN Clinical professor of psychiatry Georgetown University Washington, DC

Letters are welcome and should be addressed to the Editor at The Economist, The Adelphi Building, 1-11 John Adam Street, London wc2N 6нт Email: letters@economist.com More letters are available at: Economist.com/letters



Who's next?

NON-COMMERCIAL the Anti-Ballistic Missile Treaty in 2002 and the Intermediate Nuclear Forces Treaty (which Russia was breaking) in 2019. The New START treaty, a ten-year-old cap on American and Russian nuclear

Nuclear proliferation is not fast. But it is still frightening

N MARCH 1963 President John Kennedy Llamented his failure to negotiate a ban on nuclear tests. "Personally," he warned, "I am haunted by the feeling that by 1970, unless we are successful, there may be ten nuclear powers instead of four—and by 1975, 15 or 20."

Kennedy was wrong. While many countries explored the idea of nuclear weapons from the 1950s to the 1990s, comparatively few took the next step of actually trying to develop the ability to build them (see chart on following page). Of those few some stopped because the country itself dissolved (Yugoslavia), some because of changes to domestic politics (Brazil), some because of pressure from allies (South Korea) and some through force of arms (Iraq).

The parties to the Nuclear Non-Proliferation Treaty (NPT) now include 185 countries which have renounced the nuclear path, as well as five nuclear-weapon states that the treaty recognises as such—America, Britain, China, France and Russia. The

four nuclear states outside the treaty either never signed it (India, Israel and Pakistan) or withdrew from it (North Korea).

Nine nuclear-weapon states is a long way from Kennedy's nightmare. What is more, recent years have seen increasing interest in moving beyond the NPT's preservation of the status quo and pushing for a world in which nuclear weapons are illegitimate. This is the goal of the Treaty on the Prohibition of Nuclear Weapons, which commits its parties to not making, using or hosting nuclear weapons. Having been ratified by 52 of its 86 signatories, it entered into force on January 22nd.

But this "nuclear ban" is born as much from frustration as from hope. The NPT was a deal in which non-nuclear-weapon states got both access to civilian nuclear technology and a commitment that the nuclearweapon states would seek to negotiate disarmament. Though the American, Russian, French and British arsenals did shrink after the end of the cold war, there has been little progress since. Indeed there has been some backsliding. America left

forces to which Presidents Joe Biden and Vladimir Putin agreed a five-year extension on January 26th, is now the only bilateral arms-control agreement that binds the two countries. A grim panoply of new American and Russian weapons has been announced in recent years, from American miniature warheads to Russian underwater drones designed to drench coastal areas in radioactive fallout. China, for its part, has been upgrading its initially modest nuclear forces into considerably more than the bare-bones deterrent they once were.

As major nuclear powers have added to their nuclear capabilities some proliferators have paid little price for acquiring them. Gaukhar Mukhatzhanova of the Vienna Center for Disarmament and Non-Proliferation points out that in the late 1990s America's policy was to "cap, roll back and eliminate" the embryonic Indian and Pakistani arsenals through sanctions and censure. But as it became clearer that India would serve as a bulwark against Chinese power, America bent its own rules to allow civilian nuclear co-operation and helped ease India into international re->> • gimes governing nuclear exports.

Great-power sabre rattling, a sense that some countries get to bend the rules and a reassessment of America's role as a steadfast ally during the presidency of Donald Trump may all have provoked interest in proliferation. What is more, though the bomb's spread has slowed, it has never stopped—and proliferation begets proliferation, whatever speed it unrolls at. Iran's nuclear programme spooks Saudi Arabia. North Korea's arsenal casts a darkening shadow over South Korea and Japan.

They could if they wanted to

Despite a dalliance with the idea of following China into the nuclear club in the 1960s, Japan is for obvious reasons generally seen as making a case for nuclear caution. At the same time it is the only non-nuclear-armed state which operates major facilities for enriching uranium and reprocessing plutonium from spent reactor fuel, both potential routes to fissile material for a bomb. And in 2017 North Korea tested some of its nuclear-capable missiles by flying them over the archipelago to splash down in the Pacific beyond.

Such experiences change perspectives. Japanese conversations about nuclear weapons were once "sotto voce" and confined to a small cluster of "very conservative thinkers", says Richard Samuels of MIT. Now, he writes in an article with his colleague Eric Heginbotham, "What once had been nearly taboo...has a conspicuous presence in Japan's security discourse."

The idea is still deeply unpopular. Mark Fitzpatrick, who used to oversee non-proliferation policy at the State Department, reckons that Japanese scientists would only comply with an order to produce nuclear weapons "in the event of a sharp deterioration in Japan's security situation". But his examples of such deteriorations are hardly outlandish. "In the imaginings of

Japanese policymakers," he says, "the most likely scenarios would be if South Korea goes nuclear or if the Koreas unify and keep Pyongyang's existing arsenal."

South Korea lacks enrichment and reprocessing capabilities, and is thus rather less well-placed than Japan to develop nuclear weapons. But it is closer to North Korea, and more worried. "Politicians are trying to normalise and remove the stigma of discussing nuclear weapons in public discourse," according to Toby Dalton of the Carnegie Endowment, a think-tank, and Ain Han of Seoul National University.

On a technical level, the country has sought to acquire submarines powered by nuclear reactors, the fuel for which is closer to weapons-grade than that for power stations. And on January 13th it announced tests of a submarine-launched ballistic missile. No other non-nuclear state has ever seen a need for such a capability.

Polls show that a majority supports either the development of nuclear weapons or the return of the American ones stationed there during the cold war. But extending American deterrence is harder today. For America to use nuclear weapons on the Korean peninsula would always have been a momentous decision, but in the past it would not have put millions of Americans on the frontline. Now that North Korean missiles can apparently reach North America, attacking Pyongyang puts New York at risk. Strategic calculations are sensitive to such things, and both South Korea and Japan know it.

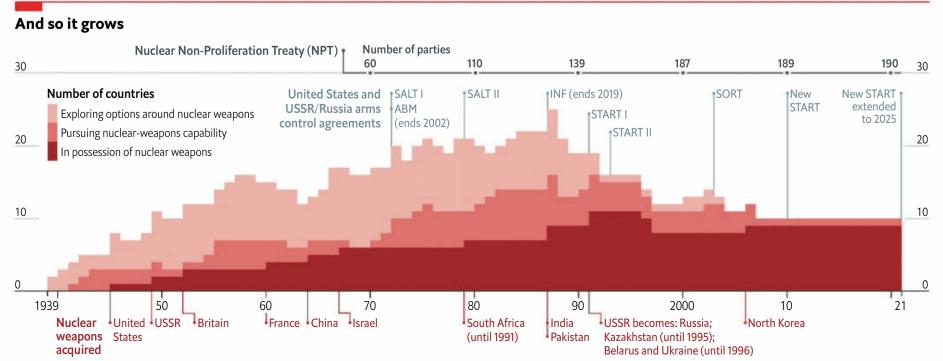
Taiwan has similar worries; China's increased ability to strike half way round the world could affect America's willingness to come to the island's aid in extremis. But though the country explored nuclear options as recently as 1988, the fact that, today, such efforts would furnish a much more powerful China with a pretext for pre-emptive strikes and possibly invasion makes rekindling them unappealing.

Mr Biden has not said how he plans to address North Korea's increasing nuclear prowess and its impacts. He will be keen to avoid doing anything which encourages proliferation elsewhere. American promises, blandishments and threats have often checked nuclear ambitions among its allies. A real sense of what American and international displeasure could mean economically might well change what South Koreans say about nuclear weapons.

But North Korea is not going to give up its nuclear weapons. And any deal with America which legitimised North Korea's arsenal in an effort to stop its growth would increase South Korea's incentive for at least keeping the nuclear option available—a posture known in the nuclear trade as hedging. So would a resumption of North Korean missile tests. Jeffrey Lewis and David Schmerler of the Middlebury Institute of International Studies (MIIS) in California recently published evidence that North Korea was preparing to test a new longrange submarine-launched missile.

The fear generated by North Korea's growing arsenal and the fact that Japan. South Korea and Taiwan could all "produce nuclear weapons in perhaps two years—or less in Japan's case", according to Mr Fitzpatrick, makes East Asia a hot spot. But it is not the only one. George Perkovich of the Carnegie Endowment divides potential proliferators into two categories: those with ample means but less ambition, and those with greater ambition but fewer means. The East Asians fall into the first category; for the second, look to the Middle East, where insecurity is more violently manifest than in Asia and neither the fetters of liberal democracy nor the pull of alliances as strong.

According to a recent study by the Centre for Strategic and International Studies. another think-tank, "Personalist authori->>



Sources: "When did (and didn't) states proliferate?", by Philipp C. Bleek, Belfer Centre for Science and International Affairs, 2017; UN Office for Disarmament Affairs

tarian leaders seem more inclined toward the bomb, [and] their hold on power can in some ways make it easier for them to carry out their plans." The study notes that Recep Tayyip Erdogan, Turkey's increasingly autocratic president, has begun to talk like a case in point. In September 2019 he complained to members of his ruling AK party that "some countries have missiles with nuclear warheads...But [we are told] we can't have them. This, I cannot accept."

Sinan Ülgen, a former diplomat who leads EDAM, an Istanbul-based think-tank, doubts that Mr Erdogan would act on this rhetoric. "At first the public may like the idea of having nuclear weapons," he says. "But the cost for an open economy like Turkey would be too big and long-term. No government can sustain it under conditions of democratic elections."

Not all leaders in the region toil under such constraints. "In discussions in Saudi Arabia, there's a lot more willingness to talk openly about the possibility of proliferation," says Gregory Gause of Texas A&M University. The obvious cause is Iran's nuclear programme. The JCPOA, a deal struck in 2015 between Iran, the five nuclear powers recognised by the NPT, Germany and the EU, saw Iran agree to reduce its uranium stocks and enrichment capability and to have them stringently monitored by the International Atomic Energy Agency (IAEA), the NPT's watchdog, in return for relief from sanctions. But after Mr Trump pulled America out of the deal in 2018 Iran ceased respecting its constraints. On January 4th it started enriching uranium to 20% purity-nine-tenths of the way to weaponsgrade—and nine days later began work on uranium metals, which can be used to fashion the core of a bomb.

Mr Biden says he will rejoin the ICPOA. in which case Iran has said it will return to compliance. Israel and Iran's Arab rivals oppose such a revival, just as they opposed the deal in the first place. They see it as legitimising Iran's nuclear infrastructure while placing only temporary limits on what it can do with it. In 2018 Muhammad bin Salman, Saudi Arabia's crown prince, told cBs, an American broadcaster, that the kingdom "does not want to acquire any nuclear bomb, but without a doubt, if Iran developed a nuclear bomb, we will follow suit as soon as possible". Mr Fitzpatrick reckons that "Saudi Arabia is the proliferation concern number one around the world."

Despite its announced intention of building 16 nuclear-power stations, Saudi Arabia's nuclear technology remains far behind that of Japan or South Korea. That need not, in itself, thwart any nuclear ambitions it has or develops. In the past, Western intelligence officials were concerned that Pakistan—which is thought to have had its bomb programme financed by Saudi Arabia in the 1980s and 1990s—might

supply a complete nuclear device or know-how to the kingdom.

Alternatively, Saudi Arabia could rely on less-direct outside help. In a forthcoming paper, Nicholas Miller of Dartmouth College and Tristan Volpe of the Naval Postgraduate School describe the growth of an 'autocratic nuclear marketplace". The "gold standard" for deals in which countries buy civilian nuclear-power plants has been that their enriched fuel has to be imported and the used fuel sent out of the country for disposal, thus providing no domestic route to fissile material. Russia and China do not always abide by this standard; and the authors point out that 19 of the 33 reactors exported since 2000 came from those two countries. Last year the Wall Street Journal reported that China was helping Saudi Arabia build a facility for processing uranium ore. That is not the same as enriching it. But it worries Western officials.

China has also armed the kingdom with ballistic missiles. In 2019 researchers at MIIS discovered that a suspected rocketengine plant south-west of Riyadh bore a resemblance to a Chinese-built facility. This does not necessarily mean it wants nuclear weapons; their perceived utility as conventional weapons is seeing ever more countries build up ballistic-missile forces. But an already established missile capability is definitely a useful thing for a potential proliferator to have.

Wider-spread ballistic-missile capabilities and laxer deals on nuclear fuel are not the only current developments that could be of help to proliferators. America's National Nuclear Security Administration warns that technological advances like 3D printing and powerful computer-aided design "may create new and worrisome pathways to nuclear weapons".

But proliferators face new challenges, too. "The world's capability to know what



somebody is doing is much greater than it was at the time that Saddam Hussein was pursuing weapons and that gives a lot more time to react," says Tom Countryman, America's under-secretary of state for non-proliferation from 2011 to 2017. Non-governmental organisations regularly unearth and publicise secret facilities using "open" sources—most notably images taken by satellites like those which researchers at MIIS used to spot North Korea's looming missile test and Saudi Arabia's rocket plant.

The IAEA has honed its remote monitoring capabilities in Iran in recent years, using tamper-proof cameras and radiation detectors that send back a steady stream of data. And Mr Volpe points out that ever more manufacturing technology is likely to be monitored from afar by its creators. Such capabilities could be used for more than scheduling maintenance. He envisages an "Internet of Nuclear Things" in which suppliers can scrutinise the tasks for which the machines they sell are used.

This all offers hope that the covert pursuit of nuclear weapons has become harder. But what of overt pursuit? For a country to leave the NPT would undoubtedly provoke a crisis. But India's experience shows that a country with real heft can weather such disapproval. As Ms Mukhatzhanova puts it, "Countries that are important, economically and politically, might count on being accepted into the system if they break out." To try to cut a frankly proliferating South Korea out of the world economy in order to bring it back into the NPT stable would be a huge undertaking.

No way back

Most nuclear-curious states, Iran included, are more interested in hedging than in actually building a weapons programme. Yet hedging by several rivals at once produces a situation where cascading proliferation becomes all too easy to imagine. An Israeli military strike on Iran, for instance, might persuade it of the need for a nuclear deterrent, thus triggering a response by Saudi Arabia which might in turn strengthen ambition in Ankara—or Cairo.

Once the world would have hoped that American diplomacy, engagement and suasion would have kept such risks in check, and over the coming few years they might. But America's centrality is on the wane. As Mr Gause points out, "A pervasive sense...that the United States is leaving the region" underpins Saudi discussion of proliferation. The risks entailed in offering a nuclear umbrella are clearly increasing. And although Mr Biden has always been a staunch advocate of arms control, the same was not true of his predecessor, and may well not be true of his successor. Proliferation has not proceeded anything like as fast as once was feared. But it has not stopped, and it could well accelerate.

United States



The Biden administration

Ctrl+Z

WASHINGTON, DC

What Joe Biden's flurry of executive orders reveals about the possibilities, and limits, of presidential power

 $B^{\scriptscriptstyle ext{UILDING A PRESIDENTIAL}}_{\scriptscriptstyle ext{executive actions can be like building}}$ castles out of sand—both risk being wiped out by the changing tides. Donald Trump spent much of his presidency playing in the sand. His lasting legislative accomplishments—a conventionally Republican tax cut, chiefly, and a worthwhile, albeit modest, sentencing-reform law-are few in number and hardly embody his hardnosed populism. The most sensational bouts of Trumpism came instead through executive fiat: the order to build a border wall with Mexico, a ban on transgender Americans serving in the military, and the steady campaign to loosen pollution controls. A new administration means new rules. President Joe Biden has already rescinded many of those actions. Given his current pace and the vigour of his appointees, he may even achieve something like total de-Trumpification of federal policy.

The executive orders have been coming at an extraordinary clip. The first tranche were breezy values-signalling measures on high-profile controversies. On his first day on the job, Mr Biden posed behind the Resolute desk of the Oval Office beside a stack of 17 immediate actions—undoing his predecessor's decisions on immigration (like banning entry from several Muslim-majority countries), climate change (by leaving the Paris climate agreement) and covid-19 knownothingism (by not mandating mask-wearing on federal property). The deeper-cleaning orders, on matters that provoke comparatively little public interest and much litigation, come later.

Most Americans misunderstand the executive actions taken by the president and

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his various agencies—which are generally treated as having the force of law—as some sort of imperial, instantaneous process. This is incorrect. The bounds of executive power are neither nebulous nor limitless, but set by Congress. In some arenas, such as regulating pollution or immigration, Congress has delegated considerable discretion to the executive branch. That is why they are the subject of vacillation from one administration to the next. In other areas, like elementary and secondary schooling, federal authority is more circumscribed.

Some consequential changes really do require only the stroke of the presidential pen. Mr Trump had channelled money for border-wall construction through a simple proclamation of a national emergency—something that Mr Biden was able to end with little fuss. He was also easily able to cancel guidance urging prosecutors to aggressively go after those illegally immigrating across the Mexican border. But other changes, like undoing the nearly 100 environmental deregulations of the Trump era, are much more arduous.

That is because of the Administrative Procedure Act (APA), the most important act that Americans have never heard of. It requires a rigid process for issuing new rules. A federal agency must ordinarily release drafts of its proposed rule (grounded in the legal authority given by Congress), allow the public a period to comment and then amend it accordingly. Separate requirements mean that regulations must be

▶ accompanied by cost-benefits analyses, which can span hundreds of pages of economic and epidemiological modelling, to justify them. Courts scrutinise these administrative actions and costings when new rules are challenged—as they often are. Improper accounting or shoddy adherence to the APA are easy ways to get them thrown out in court, which requires the entire process to restart from scratch. Litigation can stretch for years. But once a rule survives judicial scrutiny, undoing or revising it later requires another go-around.

It will help Mr Biden that the Trump administration was not very adept at administrative law. A tracker by the Institute for Policy Integrity, a think-tank housed at New York University (NYU) law school, found that 80% of lawsuits against the Trump administration's regulatory changes were successful. Under a typical administration, that number is only 30%.

Many of the failures in court were due to basic errors like not adhering to the APA's mandatory periods for public comment, or failing to provide reasonable justifications for new rules. Attempts to deregulate still stuck in litigation at the time of the transition, like the previous administration's effort to weaken exhaust-pipe emissions standards on cars, can be jettisoned without another lengthy rule making process. With a second term, Mr Trump might have waited out some of these legal challenges and seen his changes to regulation become more entrenched. Yet "because Trump was a one-term president, his whole regulatory output is very shaky, and little of it will survive," says Richard Revesz of NYU.

Executive action is useful not just for wiping away the last man's legacy but also for sketching your own. Mr Biden will not be content to simply revert to Obama-era rules circa 2016. For one, he has emphasised racial equity much more in his first executive orders than America's first black president did (a sign of how the party's base has migrated on these issues). Mr Biden's economic actions may be a bit to the left as well: he ordered the minimum wage for federal contractors to be raised to \$15 an hour compared with the \$10.10 rate that Mr Obama ordered six years into his presidency in 2014. On environmental rules, Mr Biden will probably push for ambitious regulation of methane emissions and fuel-efficiency standards for cars, says Paul Bledsoe, a former climate adviser to Bill Clinton. Given that businesses have revised their stance on climate change since the Obama days, there is likely to be less resistance even to a stricter regime.

The process of de-Trumpification may instil some lessons on the limits of relying

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To see how Joe Biden's start compares with other presidents', go to: economist.com/tracking-joe-biden

on transient executive action alone. Early efforts at mitigating the spread of covid-19 and its economic fallout by executive order-like increasing nutrition assistance for poor families by 15%, or mandating companies to manufacture personal protective equipment—can do some good. More important, notes Heather Boushey, a member of the president's Council of Economic Advisers, will be the pitch Mr Biden has made to Congress: enhanced unemployment benefits, another round of cheques and paid emergency leave. A similar delicate balance between unilateral executive action and more durable legislation will need to be struck on other priorities, chief among them climate change, if Bidenism is to prove any more lasting than Trumpism. ■

Vaccinations

Access denied

BOSTON

Inoculating non-whites is the first step to reducing vaccine hesitation

The biden administration has pledged to deliver 150m covid-19 vaccinations within the president's first 100 days in office, but who should get those shots? Most states are prioritising frontline health-care workers and long-term care-home residents, followed by people aged 75 or older and essential workers. Few states are making sure African-Americans or Hispanics get vaccinated, even though they are three times more likely to die from the virus than whites. In fact minorities may be at the back of the queue for something that is of great value to all Americans.



Build it and they will come

In Memphis, Tennessee, in mid-January, all 10,800 vaccine appointments were claimed before those without internet access could sign up by phone; but black and Hispanic Americans are less likely to have internet access. Location is also a barrier in some instances. In Suffolk County, Massachusetts, which includes Boston, 46% of white residents live in a census tract within one mile of a vaccination site, compared with only 14% of black residents and 26% of Hispanic residents. "If [the goal is] to help reduce the suffering and the death particularly experienced by black, Latino, and older communities, then...everybody should be focusing their vaccination efforts on reaching those groups," says Nina Schwalbe of Columbia University's Mailman School of Public Health. This has not been the case, however.

In early January New York City announced new vaccination sites in the Bronx and Queens, predominantly minority areas. But the mass-vaccination centres at Citi Field and Yankee Stadium delayed their openings because of low supplies, while many other sites closed. In Dallas, Texas, health officials attempted to give vaccinations first to residents living in predominantly minority zip codes, but state officials threatened to revoke vaccine allocation if they were not distributed to all eligible people regardless of race.

Unless states and cities prioritise vaccinating non-whites, they are likely to fall behind. Yet if they do, that could create a backlash and result in legal challenges. According to the *Journal of the American Medical Association*, such strategies would need to use "racially neutral vaccine allocation criteria" that could "lawfully prioritise populations based on factors like geography, socioeconomic status, and housing density that would favour racial minorities de facto, but not explicitly include race."

This is problematic, because nonwhites are also more hesitant about getting the vaccine anyway. According to the Association for a Better New York, a non-profit, white New Yorkers are more eager to get the vaccine as soon as possible—78%, compared with 39% of black residents and 54% of Hispanic and Asian residents. This mistrust need not necessarily be a big obstacle, though. According to the same survey, people's interest in getting vaccinated grows sharply once some people they know have been vaccinated. For Asians the propensity to get the jab increases by 26 percentage points, for Hispanics by 29 points and for African-Americans by 34 points.

"It is important to first reach those who want the vaccine, and educate others in the meantime," says Dr Leana Wen of George Washington University. Christopher Marte, a community organiser in the Lower East Side in New York City, recommends a grassroots door-to-door approach. To

reach the elderly black, Hispanic and Asian residents in his community, Mr Marte has joined local organisations, such as food banks and pensioners' centres, to walk the hallways, slide flyers under doors and call landlines. Trust has built over time. People "started to know people who went to the local testing sites and had a good experience," Mr Marte says.

He is optimistic that getting vaccines to interested people will help reduce hesitation, too. But only if they can get to where the jabs are being offered. Mr Marte says some pensioners are a 20-minute walk from the nearest vaccination centre. For an elderly person, this could become an hourlong walk in below-freezing weather.

For those who remain distrustful, education from respected figures is vital. Ofole Mgbako, a black physician at Columbia University Medical Centre, explains that his minority clients are sceptical at first. But they become open to getting the vaccine when given information from someone they trust who understands their worries. "I have the ability to review the science myself...to look at all the data and make my own decision," explains Dr Mgbako. "And that's where representation is important, because if more people like me are able to do that, then we can disseminate [the information] and have reasonable conversations with people in our communities."



The new, old thing

America's fastest-growing sport has kept a low profile

N 1965 THREE fathers in Washington I state faced a dilemma familiar to beleaguered parents in 2021: how to keep their restless children entertained. They threw together wooden paddles, a badminton net, and a perforated plastic ball. The sport "pickleball" was born, deriving its name—according to one legend—from a dog named Pickle, which kept running away with the ball.

Today pickleball, which is a hybrid of tennis, badminton and ping-pong, is the fastest-growing sport in America. In the five years to the end of 2019, pickleball participation grew by more than 7%, while Americans' overall activity level stayed flat, according to the Sport & Fitness Industry Association. Although data from 2020 have not yet been released, the sport has picked up more swing thanks to covid-19. Last March, when quarantines went into effect and gyms closed, portable pickleball nets temporarily sold out. Players set up courts, which are half the size of tennis courts, in driveways. "It's the new thing," says Derek Heil, an employee at Dick's Sporting Goods in Dallas, who has seen a sales spike for pickleball equipment over the last year, including for higher-end

paddles which sell for around \$100.

The 3.5m Americans who play pickleball are about one-tenth the number who golf and one-fifth the number who play tennis. Yet there are reasons to bet on the sport's spread. Like many outdoor activities, pickleball is social, but it is easier to learn than tennis and faster and less expensive than golf. Country clubs and recreation centres across the country are converting some of their tennis courts into pickleball courts to meet demand. The more places there are to play, the more players will try the sport.

Hoping to predict where the ball is going to land, manufacturers of tennis racquets are starting to make pickleball kit too. "Pickleball was seen as a threat in the tennis community," says Stu Upson of USA Pickleball, the sport's national governing body, who used to work for the International Tennis Hall of Fame. But now, he insists, it is viewed as an opportunity. Tennis pros are adding pickleball lessons to their repertoire. As more people take up the sport, demand for televised matches and sponsorships will increase. Mr Upson hopes that one day pickleball will become an Olympic sport, although that may be a long shot.

Impeachment 2.0

Getting away with it

WASHINGTON, DC

Senate Republicans prepare to exonerate Donald Trump

FTER GIVING an early signal that he ap-Aproved of Donald Trump's looming impeachment for inciting an insurrection and indeed viewed it as a good opportunity to purge the former president from his party—Mitch McConnell did an odd thing. Instead of pressing ahead with the impeachment trial in order to begin it while Mr Trump was still president, as the Democrats wanted, the then Republican majority leader sent the Senate on holiday.

Mr McConnell claimed this was a practical matter: the trial could not be concluded until after Mr Trump had left office, so it might as well not start. Seasoned observers of the senator from Kentucky, who rarely does anything without a partisan motive, suggested he wanted to see which way the wind was blowing in his conference. With the impeachment trial now set for the week beginning February 8th, it is not blowing against Mr Trump.

To convict the former president—and probably then bar him from public office—17 Republicans would need to turn on him, assuming all 50 Democratic senators voted to convict, as they probably will. Yet on January 26th all but five Republican senators—including Mr McConnell—voted to scrap the impeachment. Put up by Rand Paul, the motion alleged it was unconstitutional to impeach a former president.

Some conservative legal scholars have argued that. The constitution is vague on the issue and there is no precedent to draw on. Most experts consider this unproblematic, however—as Mitt Romney of Utah, one of the five Republican senators who voted for the trial, underlined. It defies reason that the framers would have denied Congress recourse to take action against a criminal president in the last days of his term. The opposing 45 Republicans, including Mr McConnell, of course know that. Many share his desire to see the back >> • of Mr Trump. Yet they appear to have concluded the former president's grip on their party is too strong for this to be done without damaging their or its prospects.

"Waste of time impeachment isn't about accountability," tweeted Marco Rubio of Florida, whose combination of good intentions and spinelessness before Mr Trump has made him a useful Republican bellwether. "It's about demands from [sic] vengeance from the radical left." Tell that to the victims of the insurrection Mr Trump is alleged to have incited: including the five people who died during it and three more—including two police officers—who have since committed suicide.

Tell it to the ten Republican House members who, setting aside fears for their careers and physical safety, voted to impeach him. Or tell it to Mr Rubio's five braver Senate colleagues who voted for the trial: Susan Collins, Lisa Murkowski, Ben Sasse and Pat Toomey, as well as Mr Romney. If all, or even most, of them join the Democrats in voting to convict, Mr Trump's second impeachment trial will at the least have been nothing like the partisan affair that Mr Rubio described.

A bipartisan group of senators, led by Ms Collins of Maine and Tim Kaine of Virginia, is exploring the possibility of a lesser rap across Mr Trump's knuckles, in the form of censure motion, which would in theory need only a simple majority to pass. But the Republicans could still filibuster it. And it is unclear whether even a successful censure vote could presage the additional vote to ban Mr Trump from office under the 14th amendment that Mr Kaine wants.

The Republicans' decision to protect Mr Trump is depressing but not illogical. He has already threatened from exile to launch a new party. A poll this week suggested three in 10 Republicans would join it. This is not the only indication that, after a brief dip in his ratings after the insurrection, Mr Trump is as popular with Republican voters as ever. Arizona's Republican Party has formally censured two of its most venerable members, Jeff Flake and Cindy McCain, after both endorsed Joe Biden. Its counterparts in Texas and Hawaii have defended or appeared to adopt the slogans of QAnon conspiracists (then later recanted or denied having done so).

On January 25th Rob Portman of Ohio became the third mainstream conservative senator—after Richard Burr of North Carolina and Mr Toomey of Pennsylvania—to announce he would not stand again in 2022. The intraparty contest to succeed them has already begun. It will pit establishment against Trumpist candidates (one of whom, in North Carolina, is expected to be the former president's daughter-in-law, Lara Trump) and be an important indication of whether the party's drift towards hard-right populism is reversible.

Trans women in prisons

Prisoners' dilemma

WASHINGTON, DC

Trans people need protecting in prisons. So do women

KARLA BELLO, a care assistant in Florida, had been living as a woman for years when she missed a court hearing following a series of traffic violations, failed to pay bail and wound up in a male jail. There, the guards called her "sir" and confiscated her bra and "gaff" (a piece of fabric used to hide male genitalia), leaving her feeling humiliated. Worse, she says, she was denied access to the cross-sex hormones to which she had become habituated, inducing chest pains and intense anxiety. Putting transgender women in men's prisons can be cruel. It is also, in an already dangerous environment, perilous: research suggests that transgender inmates are much more likely than other prisoners to be assaulted.

A growing awareness of this, combined with activists' call for transgender people to be recognised as members of the gender with which they identify, is leading to changes in the way trans prisoners are housed. In most cases, such inmates (the majority of whom are trans women) are incarcerated with members of their biological sex. But this month, California introduced a law allowing prisoners to request to be housed in accordance with their gender identity. Similar policies have been introduced elsewhere after transgender inmates sued for mistreatment.

Trans activists' insistence that trans women be treated as women is also influencing federal lawmakers. On his first day in the White House, President Joe Biden issued an executive order directing agencies to consider anti-discrimination measures in which he said that "children should be able to learn without worrying about whether they will be denied access to the restroom, the locker room or school sports." The Equality Act, which he has promised to make law, would redefine the "sex" of the amendments of the Civil Rights Act to include "gender identity" (that is, a person's sense of their gender regardless of whether they have taken cross-sex hormones or undergone surgery). The logical outcome of that would seem to be admitting trans women to spaces once reserved for women, from sports teams to prisons.

America needs federal legislation to protect trans people from discrimination: in many states there may be nothing illegal about a landlord refusing to rent an apartment to a trans person, for example. But policies grounded in the flawed conflation of biological sex and gender identity will lead to more problems than they solve, because they create a clash between the rights of women and those of trans women.

Prisons offer a particularly worrying example of this. There are two obvious problems with putting trans women in female prisons. The first concerns safety. Most trans women pose no threat to women. But denying the reality of biological sex ignores the fact that men are much the more violent of the two sexes. In America they commit 90% of murders and constitute 92% of the prison population. There is no evidence that trans women have lower levels of criminality than men.

California's Department of Corrections and Rehabilitation (CDCR) says the 130-plus prisoners who have so far requested they switch prisons (out of a trans population of around 1,000) are "predominantly" trans women. (This may also be because there are fewer trans men). Inmates' requests to



Karla Bello, test case

move are not granted automatically; they are assessed by a panel that is mindful that some male sex offenders will claim to be trans to gain access to victims.

But even if it were possible to weed out all sexual predators—some assaults, like flashing, rarely show up in criminal records —there would remain another, more widespread problem. Women's right to separate spaces is not only about safety; it is also about privacy. "Women have a right to disrobe out of the sight of men," says Ann Menasche, a lawyer with Feminists In Struggle which is lobbying to change the wording of the Equality Act. In prison that may be especially important. Most incarcerated women have suffered trauma: the American Civil Liberties Union says 92% of all women in California prisons have been "battered and abused".

No one has surveyed female inmates about their views on how trans prisoners should be housed; "no one would dare, in the current climate," says Ms Menasche. But it seems probable that most would rather not share a cell or shower with someone with the defining sex characteristics of a man. Most transwomen have not undergone "bottom surgery": a survey by the National Centre of Transgender Equality found that 12% had undergone vaginoplasty or labiaplasty and 11% had a orchiectomy (the removal of one or more testicle).

How to balance the welfare of trans women and women inmates? When posed this question, transgender activists, who increasingly express dislike of the term "biological sex," deny that any such tension exists. "Trans women are women," says Shawn Meerkamper, a lawyer with the Transgender Law Centre, which helped draw up California's new law.

The refusal to discuss any alternative to policies that ignore the meaning of "sex" precludes the exploration of better solutions. In Britain, the fear that allowing transwomen into women prisons endangers females prompted the establishment of a separate trans wing in a women's prison in London. But this is unlikely to be copied in America: transgender-only spaces correspond with laws that protect transgender people as a separate category rather than those that count them as members of the sex with which they identify.

Changes to the way trans prisoners are housed are likely to come slowly. Guidelines introduced in 2012 that require all federal and state prisons to ask trans inmates whether they would feel safest in a men's or women's prison appear to have had little effect on where they are placed. But as more trans women enter women's prisons, the problems this will entail will spark court cases. That may prompt a rethink. In the meantime, this policy will be tested at the expense of an unusually vulnerable and voiceless group.



Off-piste skiing

Lifts-off

EUGENE, OREGON

Covid-19 is driving a surge in off-piste skiing

When America's newest ski resort opened on December 31st, Bluebird Backcountry was uniquely adapted to social-distancing measures because it lacked one thing that every other ski resort in America has: lifts. There were no queues to stand in, worrying about your neighbour breathing on you. Instead of shuttling ticket-holders up the mountain by gondola, lifts and other mechanised means, the new resort made skiers and snowboarders slide up the mountain before gliding down.

Bluebird is part of the growing interest in backcountry skiing (or, in European resorts, "ski touring"). Not long ago, off-piste skiing was frowned on in most of the United States. Your correspondent remembers ducking under ski boundary ropes in search of untracked powder, only to have the ski patrol threaten to ban him from the resort. But even before the pandemic, backcountry skiing was becoming mainstream.

From 2016 to March 2020, sales of touring gear (such as skis with bindings that release at the heel for skiing up) more than doubled, going from \$39m to \$79m. By the 2017-18 season, 5% of America's 30m skiers and snowboarders were venturing out of bounds. Although some resorts are open to backcountry skiers, most choose wilder environs, such as national parks, where they find solitude and better powder.

Now covid-19 has supercharged the growth of the sport. In March last year backcountry-gear sales leapt 34% com-

pared with the year before. Retailers reported that, a week after resorts were forced to shut down, much of their stock was sold out. Car parks at popular access spots were full. This year most resorts are open but the boom continues. Manufacturers and retailers had increased the supply of skis, boots and the like. Yet many stores are still running low. Doug Bittinger, the owner of Mountain Outfitters in Breckenridge, Colorado, reported that he had sold as much by late December as in the whole 2019-20 season. Now he has very limited stock.

This spike in interest is making some in the ski industry nervous. America generally has fewer avalanche deaths per year than Europe, where off-piste skiing is less discouraged by resorts. But now many neophytes are rushing up mountains which do not have ski patrols, sometimes without safety gear such as avalanche transceivers. In December Colorado saw four backcountry skiers die in avalanches; over the whole previous season, only six died. Experienced skiers are calling for caution. "We all have to make changes because of covid, and stick to low-consequence terrain," says Tim Estep, a backcountry skier in Golden. Retailers now push beginners to pay for avalanche-safety courses.

Will the boom in backcountry skiing last? If the virus disappears, many skiers will return to the safety and ease of traditional resorts. But some will develop a yen for what the sport has to offer: a brutal workout in a winter wonderland.

Lexington | QAnon and other delusions

Republicans face a choice between Donald Trump and reality



This is an awkward moment for the QAnon conspiracists who put their considerable faith in Donald Trump. Inauguration Day came and went with no mass execution of Satanist Democratic paedophiles. The Storm, as a million-odd QAnon followers called that wished-for event, was a shower. So there was no Great Awakening—a post-slaughter celebration of Mr Trump—either. "No plan, no Q, nothing," grumbled one follower, referring to the conspiracy's shadowy prophet, an imagined Trump aide, on the Telegram messaging platform to which the group has flocked.

That followed its expulsion from Twitter and Facebook, after QAnon conspiracists helped lead the assault on Capitol Hill. The companies have since blocked the accounts of tens of thousands; the FBI has arrested some of the alleged insurrectionists, including Jacob Chansley, the "QAnon shaman". One of the conspiracy's architects, Ron Watkins, a Japan-based conspiracy theorist who administered the now-defunct 8chan website on which "Q"'s cryptic messages were posted, says the game is up. "We gave it our all," he wrote on Telegram, in an un-millenarian fashion. He and his father, an air-force veteran and former pornographer who once ran a pig-farm outside Manila, are thought by some researchers to have written the cryptic messages from "Q" that fuelled the conspiracy.

An even more successful conspiracist, Alex Jones of Infowars, has also turned on the nonsense he once helped spread: ridiculing QAnon as a bunch of "witches and warlocks". But QAnon is not going away. Updated versions of it are spreading—including one on TikTok that has pushed the Storm back to March 4th. And the conspiratorial impulse behind QAnon will be even more enduring. Fully half of Mr Trump's supporters claimed to believe its core falsehoods: that he was fighting a high-level Democratic child-sex operation. As that suggests, the conspiracy is not only dangerous in itself, but both symptom and cause of the bigger epistemic and democratic crisis that Mr Trump has moved from the murkier parts of the internet to the Republican mainstream.

America has a rich history of conspiracism, due to its anti-government, apocalyptic religious and entrepreneurial traditions. Pat Robertson, a 90-year-old televangelist and former Republican presidential candidate, illustrated the last two when he predicted Mr Trump would "without question" win re-election and preside over a period "of great peace", before the probable end of the world in 2025. After Mr Trump refused to accept his defeat, Mr Robertson accused the then president of living in an "alternate reality".

The left also has bunk theories, often involving predatory bankers, and sometimes pushed by Michael Moore or Oliver Stone. Yet the paranoid style in American politics has been most pronounced on the right. During the red scares of the 1950s and 60s, led by Joseph McCarthy and the John Birch Society, it almost subsumed it. And the past two decades have witnessed an even bigger explosion of right-wing confabulation: fuelled by the anti-empiricism of the Republican elite, the grievance politics of its base and new opportunities to spin the climate-change denialism, Benghazi trutherism and end-of-days frenzies that have ensued.

Infowars, on which Mr Jones spends three-quarters of his time spinning anti-government falsehoods and the rest hawking quack supplements, such as Super Male Vitality, to steel his listeners for the coming civil war, has over 12m visits to its website a month. Fox News, where this week Tucker Carlson attacked the crackdown on QAnon as government mind-control, has millions more viewers. Such truth-bending was one of the enabling conditions for Mr Trump, who appeared on Mr Jones's show and echoed many of his talking-points during his 2016 primary campaign. Yet the former president, an unfeigned conspiracist, did not only amplify the rise of right-wing conspiracism; he also transformed it.

A genuinely prophetic book by the political scientists Russell Muirhead and Nancy Rosenblum, published in 2019 when QAnon was still in its infancy, describes Mr Trump's conspiracy theories as a political step-change. Past conspiracies typically sought to explain a genuinely surprising occurrence, such as the ability of a lone gunman to assassinate the most protected man alive. They have also tended to flourish among the powerless. Mr Trump has promoted conspiracies, from Trump Tower and the Oval Office, only to demonise and invalidate his opponents, including the democratic system itself. Thus, his claim that Barack Obama was born in Africa; his attacks on "fake news" and whatever "Deep State" agency or dutiful public servant impeded him; and his electoral-fraud delusion. The QAnon conspiracy, which Mr Trump directly promoted, was essentially an effort by his supporters to write these fabrications into a single narrative.

For Mr Muirhead and Ms Rosenblum, Mr Trump's conspiracism amounts to a blueprint for political success in a post-truth world, which imitators will probably follow. It is hard to disagree. Mr Trump's fortunes are a triumph of delusion over political gravity. Despite leading his party to defeat, its leaders may be about to absolve him for inciting an insurrection intended to overturn that defeat, because most of the party's voters still revere him, in part because they do not believe he was defeated.

It is a stunning achievement, albeit decades in the making. And the longstanding structural weaknesses Mr Trump has exploited, including the grievance politics Mr Carlson pushes, the erosion of established media, the anarchy of the internet, will endure. Twitter's crackdown on QAnon is of little consequence by comparison.

Back to life, back to reality

The fight for American democracy cannot be won by companies—or election officials or judges. It will be decided by Republican politicians, who now have an opportunity to reset the terms of battle. Democracy thrives as a contest of ideas; it muddles through as a war of interests. But without the shared reality that was the single main target of Mr Trump's attacks, it cannot function. ■

The Americas



Ecuador

A worrying windfall

EWEGONO, ECUADOR

The wind-power boom set off a scramble for balsa wood for turbines' blades—with unintended consequences

In Late 2019 loggers started arriving in Ewegono, a village of nine indigenous Waorani families on the Curaray river in the Ecuadorean Amazon. They were looking for balsa, a fast-growing species of tree whose wood is used in blades for wind-power turbines. There was a global shortage. At first, villagers "grabbed chainsaws, axes and machetes to cut it down", says Saúl Nihua, Ewegono's leader. The pay could be \$150 a day, a fortune in a region where most people have no jobs.

Soon the harvest became a free-for-all. Some loggers got permits with the help of the Waorani, but others forged them and invaded the indigenous reserve. Many took truckloads of wood without paying their workers. People from less remote places cut all the balsa they could find, stacking it along the road to Arajuno, the nearest town, says Mr Nihua. Buyers in trucks paid as little as \$1.50 per tree. Uncontrolled logging degraded the forest. "They've killed off vegetation tremendously...without respecting legal limits," says Mr Nihua, who

partly blames himself. He encouraged his fellow Waorani to earn money from the coveted timber. The influx of cash and liquor fuelled family violence.

The origin of the crisis lies oceans away, in growing demand for wind power from the world's largest economies. Thanks to ambitious targets to reduce the use of fossil fuels and technology that is bringing down turbine prices, global wind-power capacity has been increasing by 9% a year over the past decade. In 2020 new installed capacity surged by 24% to a record 78Gw. Wind farms in China and the United States, which made up 60% of that demand, were rushing to install them before tax credits and subsidies expired. "It was like the end of a gold rush," says a China-based representative of a Western turbine maker.

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Bello is away

Unlike gold, wind turbines benefit the whole world, not just their owners. They are an indispensable technology for phasing out fossil fuels. But "the sudden surge in demand put enormous strain on the entire wind-industry supply chain," says Shashi Barla of Wood Mackenzie, a consultancy. Wind fever caused the biggest problems in Ecuador, which provides more than 75% of the world's balsa. The word is Spanish for "raft".

A stiff, light wood that is also used in model aeroplanes and real aircraft, balsa goes into the core of a blade, where it is sandwiched between two fibreglass "skins" to add strength. Windmills built in the 1980s had 15-metre (49-foot) blades and could generate 0.05MW of electricity. Now, an offshore wind turbine with blades more than 100 metres long generates up to 14MW. Bigger blades require more balsa. Engineers at the National Renewable Energy Laboratory in the United States have calculated that a 100-metre blade requires 150 cubic metres (5,300 cubic feet) of balsa wood, or several tonnes.

Balsa trees reach optimal density in just five to seven years, which has helped suppliers cope with rising demand. Leading turbine manufacturers like Vestas in Denmark and Siemens Gamesa, in Spain, get most of their wood (along with foam, a less popular substitute) from three core-materials suppliers. 3A Composites, a Swiss firm, has more than 10,000 hectares

▶ (25,000 acres) of balsa plantations in Ecuador's coastal lowlands. Gurit (also Swiss) and Diab (Swedish) depend on independent suppliers and farmers growing balsa along with other crops, to whom they give seeds and training.

It is harder to predict demand for balsa than for, say, Christmas trees. As a result, says Ray Lewis of Diab, "there has always been a bit of a balsa crisis." Rising demand in the mid-2000s led to new plantations. But in 2011 turbine installations slowed sharply due in part to tighter regulations and a slower economy in China. Balsa prices plummeted. Growers planted less of it in Ecuador.

The most recent crisis was different. Demand, which revived in 2018, outstripped the supply of plantation-grown balsa by a lot, not a little. The price doubled from mid-2019 to mid-2020. In 2019 Ecuador exported \$219m-worth of balsa wood, 30% more than the previous record in 2015 (see chart). In the first 11 months of 2020, it exported balsa worth \$784m. Diab sold balsa for \$1,800 per cubic metre in 2020, three times what it had in 2018.

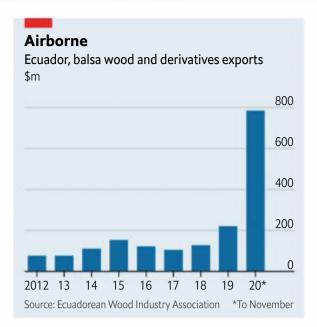
Easterly wind

The main source of new demand was China, which has built more turbines than any other country. In 2006 it had just 2.6GW of installed capacity, compared with 21GW in Germany and 12GW in the United States. By 2019, when Germany had 61GW and the United States had 105GW, China had blown past both, to 236GW. At the end of last year China's president, Xi Jinping, announced plans to reach 1,200GW of wind and solar capacity by 2030.

Chinese turbine manufacturers such as Goldwind and Envision, founded in 1998 and 2007 respectively, now have nearly 30% of global market share. They have erected turbines in dozens of countries. At first they used the same handful of Western blademakers and core-material suppliers as their competitors, but before long Chinese firms had edged into all levels of the supply chain. Sino Composite bought a stake in Cobalsa, a long-established Ecuadorean balsa firm.

The rising price of balsa also lured middlemen "like bees to a honeypot", says Mr Lewis. A 40-year veteran of the wind industry, he got emails from companies he had never heard of offering to sell him truckloads of balsa. He ignored them. Chinese firms, though, were aggressive buyers. Some set up roadside sawmills. More than 75% of Ecuador's balsa exports in the first 11 months of 2020 ended up in China. Despite having one of its best years ever, Plantabal, 3A's Ecuadorean subsidiary, saw its share of balsa exports drop from 20-25% to 8%, while Diab's fell from 15% to 5-6%.

The balsa boom, and the bust that has now followed, recall the rush to exploit



rubber in the Amazon at the beginning of the 20th century. Rubber-tappers employed in slave-like conditions supplied industrialising Europe and the United States until production shifted to Asia, leaving them even more wretched. Indigenous Ecuadoreans have more protections, but are still vulnerable to exploitation. Like miners and oil-drillers before them, balseros "took advantage" of indigenous poverty and naivety, says Mr Nihua. The Waorani have been in contact with society only since the 1950s.

Often payment from loggers was partly in the form of liquor or marijuana; that encouraged drug abuse and violence, which were already big problems. Gilberto Nenquimo, the president of the Waorani Nation of Ecuador (NAWE), says that his brother-in-law was murdered with a chainsaw in a dispute over balsa.

Overlogging was another result. Balsa trees get less regulatory protection than older, rarer trees. Fast-growing "pioneer species" can be chopped down almost anywhere, including in the rainforest, using simplified "collection permits". Balsa taken illegally—without legitimate permits or from protected areas like Yasuní National Park, which is home to uncontacted tribes—can be "laundered" by mixing it with other wood, says a customs agent. At the height of the frenzy, loggers extracted trees too young to be suitable for blademaking or shipped balsa to China without drying it, which meant it rotted on the way. The environment ministry boasts that it checked 1.4m cubic metres of balsa in 2020, twice as much as in 2019, and confiscated four times as much. But the total amount seized was less than 4,000 cubic metres.

Balsa is not an important store of carbon like bigger trees in the Amazon, but unregulated logging encourages traffic, hunting and extraction of species besides balsa. Denuded riverfronts raise the risk of flooding. The Global Forest Watch, an online platform that uses satellite data to track deforestation, recorded an "unusually high" number of "tree-cover loss"

alerts" in Ecuador in the second half of 2020, concentrated in the Amazon region. Land is Life, an NGO, says that extraction of balsa is partly to blame.

After several assemblies, the Waorani decided in October to kick out the loggers. The Wampís, another indigenous group that lives on a 1.3m-hectare territory on the border of Ecuador and Peru, made the same decision. When their guests refused to leave, the tribe seized seven boatloads of wood. The loggers retaliated by holding 19 Wampís hostage at a river crossing on December 2nd. They were released later that day, after Peruvian authorities persuaded the tribe to hand over the wood.

To get to Ewegono from Puyo, you zigzag down a narrow road to Arajuno, past two large sawmills. (One, called Hessental, was built in 2018 by a Chinese businessman, corporate records show.) Then, from a tiny port on the Curaray river where all that remains of a logging camp are mounds of sawdust and rubbish, you board a *pekepeke*, a wooden canoe with a trolling motor. Loggers left Ewegono just before *The Economist* arrived in December, but signs of the balsa boom were still visible: a new social hall, a satellite dish and sawdust outlining a football pitch.

The bust had clearly begun. Piles of balsa were stacked messily near the river. The price of balsa had fallen by half because Chinese turbine companies halted their work until after Chinese new year in February. Villagers were collecting donations for a man who had burned himself in a drunken domestic dispute. On a scrubby river island stripped of most trees, locals were growing maize. "Three years ago, this was full of balsa," said Johnny Tocari, of NAWE. A few scrawny balsa stalks, identifiable by their heart-shaped leaves, had started to reclaim the banks.

Fresh blades

There is a chance that last year's balsa boom will be the last. The shortage accelerated a shift to blade cores made partly or completely of PET, a synthetic foam that is cheaper but was long considered inferior. After Vestas, the world's largest turbinemaker, introduced the first all-PET blade designs, others began to adopt them. In 2020, "all the CEOS had to do a second bill of materials" that excluded balsa, says Mr Lewis. "Now their success depends on their ability to switch."

Wood Mackenzie forecasts that the share of PET will increase from 20% in 2018 to more than 55% by 2023, with demand for balsa staying stable. Chinese blademakers will continue to use it in the short term, since they have yet to make PET price-competitive, says the China-based representative. Balsa's long-term future as a blade component depends in part on whether the problems Ecuador has experienced over

▶ the past couple of years can be solved.

Ecuadorean officials and indigenous folk hope so. In November, after news reports about social and environmental damage from the balsa boom, the environment ministry excluded balsa from the list of the fast-growing species that can be logged with simplified permits. It is drafting stricter rules for how it can be harvested from forests.

The Waorani plan to start a co-operative to harvest balsa sustainably and sell it at fair prices to a lumber plant in Guayaquil. Similar initiatives are springing up across the region, some funded by NGOS like the Nature Conservancy, others by balsa exporters like Plantabal. They hope that consumers of green energy will care enough to insist on high social and environmental standards. "Would a person in Stockholm charging an electric car with energy generated from wood bought illegally in the Amazon feel right about that?" wonders Ramón del Pino, Plantabal's cEo. The answer is probably no. The question is whether drivers in Beijing will feel the same.

Colombia

Bootleg bonanza

MEDELLÍN

The government is fighting a black market that its policies helped create

 $R^{
m \, OGELIO}$ GUTIÉRREZ, who lives in Castilla, a violent area of northern Medellín, chugs a bottle of chirrinchi, a mix of alcohol, water and sugar, every day. He earns the money to buy it by guarding tables and chairs at a food stall when it is closed in the mornings. At noon the 76-year-old, whose vision is clouded by cataracts, slowly walks three blocks to a green house. He hands 5,000 pesos (\$1.40) to a man sitting on the pavement. The man enters the house and returns with a black plastic bag. Mr Gutiérrez (not his real name) clasps it to his chest, walks five blocks and settles down underneath a pedestrian bridge. He pulls out the bottle and stares at it. He cannot see the sediment in the colourless liquid.

In the green house is Mr Gutiérrez's favourite alambique, or maker of bootleg liquor. Medellín's northern neighbourhoods have thousands, each controlled by a combo (criminal gang). The chirrinchi he drinks is the lowest grade of liquor you can buy in Medellín. Alambiques also produce counterfeit aguardiente, an aniseed-flavoured spirit served at every Colombian festivity. Some also make rum and whisky. Each combo controls not just the alambiques in their territories but also the bars and shops that sell fake and smuggled alcohol. In Cas-

tilla it is hard to find a legal bottle of spirits.

Medellín, Colombia's second-largest city and the capital of the department of Antioquia, is the country's centre of bootleg booze. But the problem is widespread. The *alambiques* on the outskirts of Villavicencio, in the eastern plains, are run by FARC guerrillas who rejected a peace deal with the government signed in 2016. A study by Daniel Rico, director of C-Analysis, a consultancy that advises governments and firms on how to counter criminal enterprises, says half of the alcohol sold in some cities is illegal.

While the government combats bootlegging, its policies encourage it. Chief among them is the state's monopoly on distilling and selling spirits. In the 1700s the Spanish crown, keen to cash in on colonials' quaffing, took control of the production of aguardiente (which Spaniards had brought to South America). Colombia's government held on after independence in 1819. The monopoly is enshrined in constitutions adopted since 1886. In the 20th century the government transferred it to the 32 semi-autonomous regions, which have fewer sources of revenue.

The monopoly gives departments the right to be the sole producers of spirits within their borders. They can choose to allow for sale only their own brands of aguardiente, which they can produce themselves or buy from manufacturers owned by other departments. Huila, in the south-west, outsources production of its aguardiente, Doble Anís, to Antioquia. Departments can also impose taxes and fees on imported brands. An example is Cundimarca, whose capital is Bogotá. The monopoly provides more than a third of departments' income.

Legal booze is thus expensive. A bottle of Antioqueño, Antioquia's aguardiente, costs around 40,000 pesos. Unsurprisingly, the *combos* undercut legitimate liquor.

Unlike drug-traffickers' inputs, the components of bootleg aguardiente are cheap and easy to get. Alambiques' equipment consists of a bucket or similar vessel, and a hose. Colombia imports most of its alcohol, the raw material, from Ecuador, where it is cheaper. The government does not keep track of such imports. Buyers within Colombia can get it from Mercado Libre, an online marketplace, or from manufacturers of perfume. Some alambiques in Castilla buy it from El Arriero, a store in central Medellín that sells aromatherapy oils. Some alcohol comes from workers at the departments' manufacturers, who sell it to combos on the sly.

Waste pickers provide the bottles. They sell the discards they find outside bars to "recycling companies", which clean and resell them to the *combos*. Hundreds of shops that cater to *alambiques* crowd the pavements of northern Medellín with sacks of clean empties, bearing the labels of Antio-

queño and Old Parr and Buchanan's whiskies. They cost the *combos* no more than 500 pesos apiece. *Alambiques* keep them empty for as long as possible. If the police discover them no crime has taken place, says a former official who investigated the bootleg market in Medellín.

Alambiques are busiest on weekend nights. Their mixologists prepare whatever the local bars demand. The recipe for aguardiente is simple: two parts tap water to one part alcohol plus some aniseed essence (also available from El Arriero). Whisky is more complicated. Mixologists infuse alcohol with woody flavour by soaking in it a stocking filled with sawdust, says Mr Rico. Hygiene is not a priority. Paint cans and toilets serve as mixing vats.

Alambiques move every few days to avoid detection. Some take up temporary residence in houses or shops, whose occupants get paid. In Medellín's fourth *comuna*, the quarter that abuts Castilla, residents could be seen leaving a fried-chicken restaurant with plastic bags full of liquor bottles, not wings or drumsticks.

At least 26 people died in 2020 from drinking adulterated alcohol, reports Mr Rico's study. Although *combos* sometimes use methanol, which can cause blindness and death, they increasingly use potable ethanol to avoid attracting attention. Colombia has too few police to dismantle the thousands of *alambiques* in Medellín, Bogotá and other cities. Local and department officials take bribes to reopen bars that police shut down for selling illegal booze.

Mr Gutiérrez does not mind that the *chirrinchi* he drinks is illegal. He could not afford it otherwise, he says. But the dodgy drinks industry, which is encouraged by Colombia's antiquated monopolies, is putting his health at risk. The *combos*, by contrast, are thriving.



Candy is dandy but liquor is quicker



Asia and America

Relief tinged with scepticism

HONG KONG

The region is hungry for reassurance from President Joe Biden

7E ARE ALL heaving a sigh of relief," says a South-East Asian diplomat, about the exit of President Donald Trump. Never has America's ability to underpin Asia's stability and prosperity been so doubted by the region's leaders and policymakers as over the past four years. Unfortunately for America's standing in the region, the diplomat adds glumly, "The damage has been done."

The damage was inflicted in part by Mr Trump's scorn for the kind of open, multilateral trading regimes that have buoyed Asia's economic success. He demonised the wto and took America out of the Trans-Pacific Partnership, a 12-country free-trade deal. In effect, the United States abdicated economic leadership in the region for the first time since the second world war.

As for regional security, Mr Trump asked not what America could do for its friends and allies, but what they could do for it. By threatening to rupture military alliances with South Korea and Japan if their governments did not cough up more, he unsettled those two countries while implying to all that America's commitment to Asia was impermanent and conditional.

Mr Trump's secretary of state, Mike Pompeo, also alarmed governments in South-East Asia by pressing them to join in the administration's loud and often ideological demonisation of China. True, nearly all Asian countries are troubled by China's growing assertiveness, including towards Taiwan and over bogus maritime claims in the South China Sea. But the Chinese presence is too large, close and, in economic terms, largely beneficial for de-

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monisation to be an option.

Hence widespread relief at Joe Biden's incoming administration. Whereas Mr Trump disdained the policy wonks who typically flit from think-tanks to government (and vice versa), the new president has recruited squads of them. Several of his Asia hands are well-known in the region's capitals, notably Kurt Campbell, who helped engineer Barack Obama's proclaimed "pivot" to Asia in 2012. He will be Mr Biden's new tsar for "Indo-Pacific" strategy. "Washington", says Miyake Kunihiko, a foreign-policy adviser to the Japanese cabinet, "is back."

But the relief is tempered by scepticism. It is not as if American policy will return to a "prelapsarian state of grace", says Bilahari Kausikan, formerly Singapore's top diplomat. And it would be troubling if Mr Biden's approach resembled Mr Obama's second term, Mr Kausikan argues. It was marked by a reluctance to exercise power. He set red lines for Xi Jinping in the South China Sea but did nothing when the Chinese president crossed them. He urged "strategic patience" with North Korea while it built nuclear weapons. At least Mr Trump's team, for all its chaos, understood power. Few South-East Asian policymakers publicly praise the American navy's heightened "freedom of navigation" exercises in the South China Sea; yet none, in private, will criticise them.

Doubts about the Biden administration are probably strongest in Japan, whose leaders see the current Chinese regime as an existential threat and tend to prefer working with Republicans. Yet the administration's early utterances about Asia have impressed Mr Miyake and others. The similarity to the Trumpian analysis in terms of the challenges that America and Asia face is striking. The chief difference between the two administrations lies in the Biden team's proposed response.

Competition with China remains "a defining feature of the 21st century", Mr Biden's chief spokeswoman, Jen Psaki, asserted this week. China, she added, "is engaged in conduct that hurts American workers, blunts our technological edge and threatens our alliances and our influence in international organisations." The new defence secretary, Lloyd Austin, went further, defining China as the biggest threat to the United States—and by implication its friends in Asia. He has since reassured his Japanese counterpart that America's security treaty with Japan, a cornerstone of Japan's defence, covers the remote Senkaku islands, which China claims and around which hostile vessels from the Chinese coast guard often prowl.

Mr Biden's team talks of holding China "accountable" for economic abuses, forced technology transfers and bullying at global organisations—pure Trump-era talk. It seems comfortable with Mr Pompeo's lastminute abolition of long-standing constraints in contacts with Taiwan, despite the potential for friction with China. Meanwhile, Taiwan's de facto ambassador in Washington, Hsiao Bi-khim, was conspicuously invited to Mr Biden's inauguration. Arms sales to the island will continue.

But incoming American officials stress differences with their predecessors. One is greater economic and diplomatic engagement. Ms Psaki and others refer repeatedly to working with coalitions, partners and allies—a page missing from Mr Trump's playbook. They plan to consult with others in Asia before speaking to China. They want to engage much more with ASEAN, a tencountry South-East Asian club that Mr Trump neglected. To counter Chinese expansion, America will look not only to the 'Quad" of America, Australia, India and Japan but also try to strengthen the military capabilities of allies in South-East Asia.

The administration's determination to reassure is a mark of how far it thinks America's standing in the region has fallen. Despite its efforts, one question keeps being asked in Asia's capitals: will the scale of the pandemic in America, the resulting economic dislocation and the torture of its democratic institutions leave it self-absorbed for years to come? The old Washington hands may be back, as Mr Miyake notes, but is America? ■

Mongolia

Snowflake surrender

BEIJING

The government abruptly resigns after a small street protest

 $\mathbf{I}^{\scriptscriptstyle \mathrm{T}}$ is rare for anti-government demonstrators to see their demands met after a single day of protest. Yet the crowds of Mongolians who braved the biting cold of their capital, Ulaanbaatar, calling for heads to roll because of the mistreatment of a hospital patient got what they wanted and more. Ukhnaagiin Khurelsukh, the prime minister, announced the resignation of his entire government.

"The joke all over Ulaanbaatar is that the prime minister's resignation shocked even the protesters," says a bigwig of the ruling Mongolian People's Party (MPP). But far from a joking matter, this episode, along with other recent goings-on, shows that Mongolia is bogged in the same old mire that has held back the country since it threw off Russia's domination more than three decades ago and took up democracy. Politics has been turbulent, sometimes clownish. Corruption is widespread. And the mining industry, which dominates the economy, is still woefully mismanaged.

Though Mr Khurelsukh ostentatiously portrayed his resignation as a gesture of accountability, many see it as a cynical ploy to polish his image in the run-up to presidential elections scheduled for June. The protest's immediate cause was a relatively minor matter: the apparent mistreatment of a woman who, after giving birth, was diagnosed with covid-19 and then brusquely transferred to a hospital for infectious



Government-slayers

diseases. A widely aired video, showing her in a dressing gown and slippers being moved outdoors with her baby in the bitter cold and into an ambulance, sparked the angry demonstrations.

Mr Khurelsukh remains chairman of the MPP and is likely to keep pulling the strings. His replacement as prime minister is a close ally. Observers in Ulanbaatar are comparing the resignation to political manoeuvres in neighbouring Russia and nearby Kazakhstan. They note that Russia's president, Vladimir Putin, once swapped jobs for four years with his prime minister without letting go of the reins. The longserving ruler of Kazakhstan, Nursultan Nazarbayev, has retained great influence over his handpicked successor since resigning

Mr Khurelsukh is thought to be planning a run for president, and may want to distance himself from unpopular policies that could be a liability in the campaign. The demonstrators complained not only about the treatment of the new mother but also about the mishandling of the pandemic by the government. It has tried to suppress transmission through an economically ruinous lockdown. Unemployment is high and frustration with publichealth restrictions is growing.

The incumbent president, Khaltmaagiin Battulga, who first earned fame as a wrestler, may find himself pinned down by a new constitutional amendment that limits presidents to a single six-year term instead of two four-year stints. He has been in office for four years. The courts will have to decide whether he can stand again.

Whoever wins the election will face some familiar problems. Politicians are again bickering over the terms of a deal with Rio Tinto, a mining firm that is the manager of and a big shareholder in the Oyu Tolgoi gold-and-copper mine, Mongolia's biggest mining project. Successive Mongolian governments have tinkered endlessly with the ownership, taxation and financing of the mine, in which it currently owns a one-third stake, to secure a better deal for the country.

Camped outside parliament as it voted to approve the new prime minister was Sainkhuu Ganbaatar, an MP who ran for president last time around. He is on a hunger strike to press the new government to assert itself against Rio Tinto. He narrowly missed qualifying for the run-off in 2017, with more than 30% of the vote. His message remains the same: corrupt individuals have taken their cut while selling the country short. Other bigwigs have come under fire for owning fancy homes in Hong Kong, London and New York.

The mining controversy and corruption seem certain to dominate the campaign. And disgruntled demonstrators are sure to have plenty to protest against.

Japanese politics

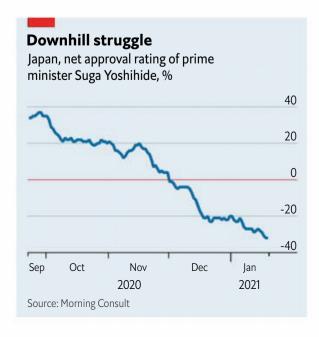
Suga slumps

токуо

The prime minister of five months struggles to inspire

URING HIS time as chief cabinet secre-Dtary, Suga Yoshihide flummoxed Japanese comedians. "He never had any distinctive characteristics," says Yamamoto Tenshin, who impersonates Mr Suga for "The Newspaper", a comedy troupe. Voters projected their hopes on that blank slate when Mr Suga became prime minister in September: he entered office with approval ratings as high as 74%. Yet the longer he has spent under the spotlight, the less satisfied Japanese have become. More disapprove than approve of his performance (see chart). Some polls show as few as 33% of voters praising Mr Suga's administration. He even looks the worse for wear recently. with a cough and hoarse voice. "He's visibly weaker," says Mr Yamamoto.

A fresh wave of covid-19 precipitated Mr Suga's slide. Most Japanese want the government to put virus prevention above economic recovery, whereas Mr Suga has focused more on the latter. As cases spiked late last year, the government stuck by a campaign to promote domestic tourism, claiming that it had no impact on the virus's spread. (Researchers at Kyoto University recently published a study showing otherwise.) Critics lambasted Mr Suga for attending a dinner with eight guests in a posh steakhouse just when the government was calling for citizens to avoid dining in big groups. After suspending the travel campaign, Mr Suga dithered over whether to declare a state of emergency, ultimately doing so in early January in piecemeal fashion, adding seven prefectures to the original list of four after regional leaders complained. Some 80% of Japanese believed the declaration came too late.



Mr Suga's personality has only compounded his problems. As chief cabinet secretary, his curt, at times combative style served him well in dealing with the press. But he has failed to change his tone when addressing the broader public. "Even after becoming prime minister, he is playing the role of chief cabinet secretary," says Sone Yasunori of Keio University. One opposition MP counted Mr Suga's responses to questioning in the Diet and claimed that in a special session last year he uttered the phrase "I refrain from answering" 113 times.

Mr Suga's talk of "self-help" and "selfreliance" grates on some who want more help from the government amid the pandemic. "He's paying the price for being who he is," says Nakano Koichi of Sophia University. "Now is not the time to be a neoliberal reformist." Nor has Mr Suga explained clearly the goal of his reforms. While Abe Shinzo, his predecessor, had big-picture "bird eyes", Mr Suga has detailed-focused "ant eyes", quips Toshikawa Takao, editor of Insideline, a political newsletter: "He has no national vision, he is clearly a numbertwo man, not a national leader type."

Mr Suga's allies hope that once the pandemic clouds clear, voters will come to appreciate his longer-term policy ideas, such as efforts to reduce Japan's carbon emissions, to digitise government services and to fund R&D and infrastructure. "Once covid-19 calms down, people will see the work he is doing for Japan's future," says Adachi Masashi, one of his advisers. Mr Suga has recently been trying to communicate better, holding more of his own press conferences on covid-19, rather than sending out lieutenants. He is taking advice on how to perk up his Twitter game.

Yet his path is treacherous. A string of tricky by-elections looms. The ratings of his Liberal Democratic Party (LDP) have dipped, though not as low as his own, making the contests a test of its broader support. The roll-out of the covid-19 vaccine, which the government plans to begin only in late February, presents further hurdles. So does a decision on whether to press on with the Olympics this summer, which it and the International Olympic Committee will probably take by late March.

These tasks are so daunting that they might actually help Mr Suga keep his job, at least in the short run, by scaring off potential challengers. "Every rival knows this is a bad time to become prime minister," says Iio Jun of the National Graduate Institute for Policy Studies in Tokyo. Yet many in the LDP have begun to wonder whether Mr Suga has the star power to lead them into the general election that must be held by October. This is fuelling talk of an open race for the LDP presidency in the party elections scheduled for September. Mr Yamamoto may need to learn a new satirical impression sooner than he expected.



Organised crime

Ice lord

The elusive boss of Asia's biggest drug-trafficking gang is arrested

MONG THE strangest by-products of the **A** Cultural Revolution was the creation of one of the world's most lethal organisedcrime syndicates. When Mao Zedong at last turned against the Red Guards, he sent many of them to be re-educated in Guangdong, the province abutting Hong Kong. Either to avoid prison or after their release, many escaped to the British enclave, as Hong Kong was then, where some banded together as the Dai Huen Jai—the Big Circle Boys. Since then the group has expanded operations to other parts of Asia as well as to Europe and North America.

On January 22nd police at Schiphol airport in Amsterdam arrested the man lawenforcement agencies say became the biggest Big Circle Boy of all: Tse Chi Lop. Though he is too young, at 57, to have been a Red Guard, he is accused of assuming the mantle of the organisation's founders and of taking its activities to a far higher level, as boss of a narcotics-trafficking supersyndicate known to members as "the Company". Law-enforcement agents call it Sam Gor, Cantonese for "Brother Three", one of Mr Tse's many sobriquets.

It is the Company, they claim, that has been chiefly responsible for flooding the Asia-Pacific region with methamphetamines and other synthetic drugs. The UN's Office on Drugs and Crime put the syndicate's turnover in 2018 at between \$8bn and \$18bn. That would mean Brother Three is in the same league, as an underworld king->> ▶ pin, as Joaquín Guzmán, a Mexican cartel boss nicknamed El Chapo.

Yet until Reuters, a news agency, published a report on him in 2019, he was virtually unknown to the wider public. A search on Baidu, a Chinese internet service, reveals not a single mention of him in Chinese-language sources before his arrest. Even though he is said to have been protected by a squad of Thai kickboxers, he kept a remarkably low profile.

Mr Tse was arrested as a result of an investigation codenamed Operation Kungur which involved some 20 law-enforcement

agencies, led by the Australian Federal Police. It is not his first brush with the law: in 1998 he was convicted in New York of conspiracy to import heroin. By 2006 he was out of jail and soon, say law-enforcement agents, returned to trafficking.

The Company is said to make its methamphetamines in big production facilities in the Golden Triangle, where Laos, Myanmar and Thailand meet, and especially in Shan state in eastern Myanmar. From there they are smuggled into Thailand, Bangladesh and farther afield. The syndicate was thought to have been the source of 1.2 tonnes of methamphetamines found at Geraldton on the west coast of Australia in 2017—the biggest-ever seizure of the drug in Australia. The Company distributes the drug both as tablets known as *ya ba* ("mad medicine" in Thai) and as crystal meth, which is usually smoked. Such is their mark-up (as much as 30,000% in Japan) that traffickers can afford to lose several consignments and still make vast profits. Mr Tse himself is said to have become so rich that he once blithely walked away from the gambling tables at a casino in Macau after losing \$66m in a single night.

Banyan Hard to account for

India's budgets are becoming ever less reformist

A MID THE clamour of Indian politics, the yearly presentation of the national budget is an oddly solemn rite. By tradition the finance minister serves sweets to staff when the tome is printed. After the descent from Delhi's Raisina Hill, the seat of government, to the circular parliament building at its foot comes the stock photo on the steps of the legislature, proudly gripping the ministerial briefcase—at least, until Nirmala Sitharaman, the current minister, pointedly dropped this "colonial" relic for a homely cloth-bound folder.

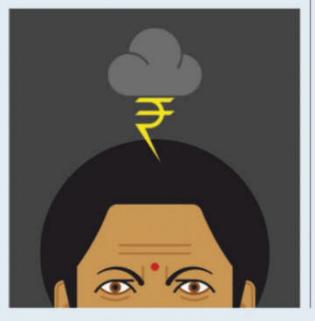
The ministerial speech itself follows worn protocol, too, with the minister's sweeping overview followed by an itemised account of planned spending. The delivery can be gruelling. After a recordbreaking address of 161 minutes last year, Ms Sitharaman felt faint and had to stop without concluding. Her dogged enumeration of government projects and programmes prompted one journalist to quip that at least her budget was stimulating demand for coffee.

Yet the stately tedium of the occasion disguises toil, anguish and considerable suspense. The stakes for Ms Sitharaman this year are particularly high. Scheduled for February 1st, her budget speech falls in the midst not just of a pandemic, but also the deepest economic slump on record and, more immediately, a siege of the capital by angry farmers. Indeed the farmers, having briefly occupied the city's Red Fort on January 26th before being shooed away by police, had also threatened to mark Budget Day with a march on parliament. (They called off the march this week in response to the storm of criticism and the massing of security services prompted by the assault on the Red Fort.) Their interest in the budget itself is minimal; the invading farmers

simply want the government to scrap a trio of agricultural reforms that would increase their exposure to market forces.

There is keen interest in the actual numbers from other quarters, of course. As quarrelsome as the buzzards, crows and parakeets in Delhi parks, India's economists are wrangling more noisily than usual about what the finance minister should do. Spend more and damn the deficit, say some. No, stay the prudent course, say those who reckon it a good thing that this government, despite big talk of boosting the economy as it began to falter last year, has in fact largely kept its powder dry. There is ammunition for every argument. Side-by-side on the same page of a newspaper, one story carries upbeat news that the IMF expects India's economy to grow by 11.5% this year, while another states that a leading business lobby predicts a contraction of 8% in the current financial year, ending in March. Yes, poverty, joblessness and malnutrition have surged, but so have corporate profits and stock prices, to record heights.

This year marks the 30th anniversary of



a reforming budget that yanked a socialist India onto a faster growth track. Since then the momentum of change has slowed and even, in some respects, reversed as the government of Narendra Modi reverts to older ideas of protectionism and state control. Many would like to see the reforms accelerate again. With revenues down, spending sorely needed and asset prices high, one obvious way to achieve this would be to stop dithering over privatisation. The government could raise some \$50bn, enough to fund two to three years of spending on health and education at current levels, simply by shrinking its holdings in a handful of state-owned firms to around 25%, reckon

But then again, this year also marks the 161st anniversary of India's first-ever budget speech. It was delivered in 1860 in Calcutta, as Kolkata was then known, by James Wilson, a Scottish businessman, banker and politician who, 17 years earlier in London, happened to have founded *The Economist*. The British colonial authorities had appointed him to restore order to their shambolic finances. The hard work took a toll. Just eight months after arriving he died, as his tombstone in Kolkata explains, "from the combined effects of climate, anxiety and labour".

Shashwat Alok, Aditya Kuvalekar and

Akhil Agarwal, a trio of economists.

Before he succumbed, Wilson expressed withering criticism of the administrative ineptitude and vacillation of the British regime: "The sacrificing consequences of procrastination and shirking responsibility and the tendency to get rid of difficulties by compromise or delays are fatal elements in the character of the Government of India." Even though India has long since rid itself of imperious colonialists, it seems not to have expunged all their vices.



Trade-union reform

Precariat unite!

HONG KONG

The gig economy presents new challenges for China's state-run trade union

ON JANUARY 11TH Liu Jin, a food-delivery worker, parked his motorcycle on the side of the road in the eastern city of Taizhou. "I want my hard-earned money," he shouted. He then set his petrol-soaked clothing alight, burning himself badly. State-owned media said Mr Liu was protesting against Ele.me, a delivery service which, he alleged, owed him money. (The company says it is paying Mr Liu's medical bills and investigating his case.) On Weibo, a social-media platform, footage of the incident went viral.

Such grievances are common among the millions of workers in China's fast-growing gig economy, though few cases are as dramatic. The number of protests by gig-economy workers has risen both in absolute terms and as a share of overall labour unrest according to China Labour Bulletin (CLB), an NGO in Hong Kong. In 2019 it recorded 142 protests by food-delivery, logistics and transport workers but, because so

many protests are unreported, it estimates that this represents only about a tenth of the actual number.

The ruling Communist Party's response has been to try to persuade gig workers to join a trade union. In 2015 China's leader, Xi Jinping, launched a plan for "experimental reform" of the umbrella organisation to which all unions must belong, the All-China Federation of Trade Unions (ACFTU). The full text was not released, but state media said the aim was to make the federation focus on concrete measures to help workers, and to reduce "instability". It urged boosting membership among rural migrants, with apps to make it easier, hoping this would discourage protests. In 2018 the

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ACFTU said it would try extra hard to recruit eight groups of non-factory labourers, including food-delivery workers (around 7m people) and couriers (4m).

New unions for gig workers have struggled to make themselves appealing. The first was founded in Shanghai in 2018 with about 400 members. It offered workers instructions in traffic rules and sold them watermelons at a discount. Regardless of reforms, unions are a wing of the Communist Party, and union officials are considered civil servants, so they cannot do anything that goes against government policy. says Chris Chan of the Chinese University of Hong Kong. Sometimes, a firm's boss is also head of the union. "The most important task of local governments isn't to protect workers' rights, it is to maintain social stability and ensure economic development," he says.

Nothing to lose but your overtime

Official descriptions of the reform campaign focus on the importance of strengthening party control of the federation and of using it to boost the party's grassroots presence. The party has been working hard in recent years to form cells in private firms, to gain a bigger say in how they are managed. It sees setting up trade unions as a useful stepping stone.

Before 2015, small labour NGOs played a >>

role advocating for workers' rights. They achieved some notable victories. A strike at a Citizen watch factory in Guangdong province in 2011 led to collective bargaining. Managers also agreed to cough up 70% of overtime payments that had been in arrears for five years. In 2015 workers at Guangdong's Lide shoe factory forced the company to pay several million yuan in social-insurance contribution arrears. Then, in 2015, the Party clamped down on all civilsociety groups.

Another crackdown came in 2018 when workers at Jasic, a welding factory in Shenzhen, tried to form a worker-led union and register it with the federation. The workers were fired. Weeks later, police arrested dozens of workers and students from across the country for protesting in support of the union.

So is there any chance the reforms can do more to protect workers? Union ranks have swelled. In 2015-16, 30m migrant workers joined. The ACFTU now has more than 390m members, including 6.5m from the eight priority groups. And according to CLB, some unions have devoted more resources to helping workers with legal advice. Sometimes the local union federation stands up for workers, even when the union inside the company does not. Between 2016 and early 2019 the ACFTU says it helped more than 5m migrant workers secure 53bn yuan (\$8.2bn) in overdue wages.

Yet it remains distant from many workers. Of 350 delivery workers interviewed by Jenny Chan of Hong Kong Polytechnic University, not one knew what the federation does. In the decade before China's clampdown on labour activism in 2015, the ACFTU engaged directly with workers, even experimenting with collective bargaining and running training sessions for workers in their factories. Now, says Mr Chan, as the party reasserts its dominance throughout society, union training for workers often happens at local "party-masses service centres". It involves telling workers not to strike or protest and pointing them towards mediation or arbitration if they have gripes. Hotlines have also been set up.

'Sometimes it does work for workers," says Eli Friedman of Cornell University. "If you look at the final decisions reached through arbitration or litigation, they tend to favour workers over employers. But there are all kinds of obstacles that prevent this course from being effective; most important, it takes a lot of time." Most workers do not have time or money to invest in court proceedings or arbitration.

The party is keen to prevent people from banding together. "If you have a group of 50 workers from some workplace and they go and say that the boss hasn't been paying them, the first thing the union tries to do is chop it up into 50 individual cases," says Mr Friedman. In 2019 more than 2.1m disputes

were handled through arbitration, involving 2.4m workers.

For those like Mr Liu, the rider for Ele.me, union membership offers little hope that gruelling work conditions will soon improve. Riders are often hired by subcontractors who force them to take risks to deliver on time, or risk not getting paid. In the past two years thousands of couriers across China have been injured or killed in accidents, according to CLB. Mr Friedman is "extremely pessimistic" that union reforms will help gig workers. Even if the union wanted to represent the delivery workers in collective bargaining, it would not be able to because, legally, most couriers are independent contractors, not employees. As in so many countries, the people who bike hot lunches to office workers live precariously.

African students

School's out

The pandemic disrupts China's rise as a destination for foreign scholars

THEN HIBA BOUROUQIA WON a Chinese government scholarship to study international trade, she was "full of hope, full of life". Now, however, "I just sit and cry," says the 19-year-old Moroccan. China's strict quarantine measures have forced her to study remotely from her home near Casablanca. Ms Bourougia considered giving up and applying for a Moroccan university. But she says the academic standards are not up to China's, so she is persevering.

Around the world the dreams of many



Happier times in Chongqing

international students have been shattered by the pandemic. The virus has also damaged China's hopes to continue as a major destination for international students. In 2019 it was third globally, receiving almost 500.000 foreign students, just behind Britain, though still only half the number going to America. Now, however, China's tough border controls have made it almost impossible for overseas students to enter the country. Many are furious.

Africa has been a big target of Chinese efforts to enhance its global "soft power". More than 80,000 Africans were studying there before the pandemic struck. China has surpassed America (47,000) and Britain (29,000) as the destination of choice for African students and is now closing on the traditional frontrunner, France (112,000). The Chinese government has showered the continent with bursaries. One education charity estimates that 43% of all scholarships to sub-Saharan Africa are provided by the Chinese government.

Unlike Western students, who usually study in China for a year at most, many Africans live from enrolment to graduation on campus. And for all China's largesse with scholarships, about 85% of them are self-funded, so they feel heavily invested. They also worry about job prospects. "Would you employ a person who did civil engineering online?" asks Davine, a thirdyear undergraduate who is stuck in his home country, Zimbabwe.

Many African students have joined an international social-media campaign, #TakeUsBackToChina. It accuses China of ignoring their pleas to be allowed back, even though they are prepared to take necessary tests for covid-19 and submit to quarantine. They have written a petition saving they cannot continue to pay fees for poor online lessons that often require them to be up in the middle of their night.

The grievances of African students have been compounded by a spate of racist incidents in China early last year. In the southern city of Guangzhou, dozens of Africans, including students, were evicted from their homes after several Nigerians tested positive for covid-19.

But in spite of the current problems China's universities are likely to keep attracting Africans. A year at a leading Chinese college, many of which are rising up global league tables, costs no more than \$4,000 in fees, one-tenth of the cost in Europe or America. Mostapha El-Salamony, an Egyptian doctoral student in aerodynamics at Peking University, says it is also easier to gain admission to Chinese universities and, in normal times, to secure a visa. He says he works with top-class scientists and equipment, and most classes for international students are taught in English. Says Ms Bourouqia, "China was and still is the best choice."

Chaguan | Becoming more Chinese

Assimilation of minorities is not just for Uyghurs and Tibetans



Sometimes easy victories are the most revealing. Lots of governments are capable of ruthlessness in the face of terrorism or real threats to national security. When a regime uses its full strength to impose its will on a group offering no resistance, however, that is a clarifying moment. Just such an unequal contest is now unfolding in the forested hills of the Yanbian Korean Autonomous Prefecture, near the Chinese border with North Korea.

Yanbian is home to fewer than a million members of an officially recognised Korean ethnic minority, most of them descended from migrants who fled wars and famines on the Korean peninsula in the late 19th and early 20th centuries. Chinese scholars study the region as a model of co-existence with the country's Han majority. Education is part of that story. Ethnic Korean schools in Yanbian have offered bilingual education for more than 60 years. Until recently, classes in maths, science and foreign languages were offered in Mandarin, while Korean was used to teach hard-to-grasp concepts in subjects like history, politics and other social sciences.

Traditionally, the urge to learn is strong in Korean culture. "Parents would sell cattle for their children to go to school," says one academic. In this century Yanbian pioneered trilingual education, passing local education laws in 2004 that gave precedence to Korean but placed new weight on teaching students a third language (sometimes Japanese, but mostly English). In a globalised age, parents understand that languages are about more than tradition: they are a bridge to other cultures, says the academic. Multilingual Yanbian graduates are sought after by employers in southern boomtowns such as Shenzhen and Guangzhou.

Yanbian's ethnic Korean schools were for a long time sheltered from a campaign to promote Mandarin over minority languages, which was rolled out a decade ago in such restive spots as Xinjiang and Tibet and has since spread nationwide. Last November a leading member of the National People's Congress (NPC) called Mandarin-promotion a crucial policy for "managing ethnic affairs, enhancing national unity and safeguarding national security".

Now Yanbian finds its education laws under direct assault. On January 20th a powerful body, the Legislative Affairs Commission of the NPC Standing Committee, announced that education laws in two unnamed places violate an article of China's constitution that

says the state promotes the nationwide use of Mandarin. As first reported by NPC Observer, an invaluable blog run by Changhao Wei of Yale University Law School, the only education laws that match the announcement are in Inner Mongolia and Yanbian.

The ruling is shocking in several ways. For one thing, it is the bluntest of legal instruments to declare a law unconstitutional. For another, the NPC ruling made no mention of another article in the constitution that offers protection for ethnic-minority languages. In reality, those protections are a relic of policies that date back to the founding of Communist China in 1949. Today, the political tide is with prominent scholars and officials who call for "second-generation ethnic policies", built around assimilating minorities into a single, Chinese civilisation. Such nationalists justify their centralising zeal with claims that China risks ethnic unrest and a Soviet-style break-up if minority privileges are not ended.

In Xinjiang education policies are bound up with a larger wave of repression, imposed in the name of counter-terrorism and fighting Islamic extremism. Most foreign attention has been paid to Xinjiang's political re-education camps, through which perhaps a million Muslims from the Uvghur minority have passed, after being flagged as potential extremists for such acts as praying too often or telephoning relatives overseas. But in Xinjiang's ethnicminority schools, life has also been transformed. Formerly, many subjects were taught in the Uyghur and Kazakh languages. Now those tongues have been downgraded from mediums of instruction to mere subjects, offered for a few hours each week. In Tibet and in Tibetan areas of Qinghai, a neighbouring province, similar changes to education policies prompted street protests in 2010. In the late summer of 2020, thousands of parents in Inner Mongolia boycotted schools after it was announced that such sensitive subjects as literature, politics and history must be taught in Mandarin by 2022. Across Inner Mongolia riot police broke up protests, and parents were ordered to send children to school or else be declared ineligible for government subsidies or bank loans.

No riots greeted a similar change to language rules in Yanbian, unveiled as the school year began last September. Today the academic urges patience, encouraging families to wait to see how the government balances the need to strengthen general-purpose education with the task of preserving ethnic languages.

Bad Korea move

Locals encountered in Yanji, the regional capital, on a recent week-day, including parents who had brought children to skate or sled on the frozen Buerhatong river, offered mixed opinions of the change. A Korean-Chinese man with a son at kindergarten supports the greater use of Mandarin in schools. He struggled at university and had to study Chinese in his spare time. He accuses some groups, such as Tibetans, of separatist ambitions. "We Koreans don't feel like that, we're more supportive of the government."

Others are torn. A mother of two toddlers worries that Korean culture may be weakened by the new rules. But there must be a logic to the state's actions, she adds, as locals glide past on chairs fitted with ice-skates, pushing themselves along with spike-tipped poles. The government sees a bigger picture than mere citizens can, suggests the mother, loyally. Such deference to authority is not rewarded with much trust. Plain-clothes police followed Chaguan around Yanji and tried to eavesdrop on interviews.

The fate of Yanbian—a region that finds itself accused of unconstitutional acts—points to a bleak reality for ethnic minorities. Loyalty is not enough. Their duty is to become more Chinese. ■

Middle East & Africa



The Palestinians

To the polls

DUBAI AND JERUSALEM

Will a call for elections shake things up in the Holy Land?

Most palestinians are probably too young to remember when their president, Mahmoud Abbas, took power in 2005. He was elected to a four-year term, the first of two permitted by law. He never got round to holding another vote, yet he remains in charge, having served four times his mandate. Amazingly, he could soon win another term.

On January 15th Mr Abbas announced the first elections in the occupied territories in more than 15 years. Many Palestinians were understandably sceptical. Calling for new elections is something of an annual tradition for Mr Abbas, who turned 85 in November. They never happen. Increasingly autocratic, Mr Abbas is loth to risk his grip on power.

Perhaps he is more serious this time. Against the grain of years past, he has fixed dates for the elections, with a parliamentary ballot in May and a presidential one in July. But even if they happen they are unlikely to bring sweeping change: Mr Abbas could be the only viable candidate for president. His announcement does not reflect a desire for fresh faces or a new direction.

Instead, it is a gesture to the new president in Washington. The Palestinians had a hard time with Donald Trump, to say the least; relations with America have not been this bad since the 1980s. Mr Abbas is eager to start anew with Joe Biden. Yet he is likely to be disappointed with the new administration, which has neither the time nor the inclination to wander down the cul-de-sac of Israeli-Palestinian diplomacy. In his effort to court the Americans, Mr Abbas may

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simply illustrate how bereft of ideas he is.

Three out of four Palestinians support his call for elections. But they are not terribly enthusiastic about their choices. A survey conducted in December by Palestine's leading pollster found that 66% of the public want Mr Abbas to resign. He would probably lose a race against Ismail Haniyeh, the leader of Hamas, the militant Islamist group that controls Gaza. It may not field a candidate, though. The group's experiment with governance has been a disaster. Under blockade by Israel and Egypt, Gaza is an open-air prison where 2m people live in miserable conditions. Better to have Mr Abbas as a foil than to be responsible for the West Bank as well.

There are few other credible challengers for the throne. Despite his advanced age, Mr Abbas has not designated a successor, and occasionally cuts down rivals within his nationalist Fatah party. The only name that excites voters is Marwan Barghouti, a prominent member of Fatah who would probably romp home to victory. But he would have to run from inside a jail cell. Mr Barghouti was convicted of murder by an Israeli court for organising attacks during the second *intifada*, or Palestinian uprising, and is serving multiple life sentences.

As for parliament, it has been defunct for more than a decade, owing to a dispute between Hamas and Fatah. Asked who they

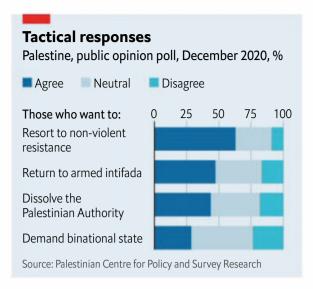
would choose in a legislative election, 34% of Palestinians said Hamas and 38% Fatah (in the election of 2006 they won 44% and 41% of the vote, respectively). The rest opted for third parties or were undecided. A good showing could give Hamas a foothold in the West Bank, where both Israel and the Palestinian Authority (PA) have long worked to suppress it. Many of the president's own lieutenants are therefore opposed to holding elections now. The decision is an uncharacteristic risk for the stuffy Mr Abbas, one he hopes will leave him with a renewed mandate and a smidgen of goodwill in Washington.

It is hard to remember now, but his relationship with Mr Trump began amicably. After their first meeting at the White House, in May 2017, Mr Abbas declared "with you, we have hope." But there was an irreparable break in December of that year, when Mr Trump recognised Jerusalem as Israel's capital and moved America's embassy there, breaking with decades of bipartisan consensus that it should remain in Tel Aviv. For the Palestinians, the status of Jerusalem should be resolved in a final peace agreement. They saw Mr Trump's move as an effort to prejudge the outcome.

Things went from bad to worse. In 2018 Mr Trump set out to halt all American aid to the Palestinians, including funds for the United Nations agency that supports Palestinian refugees and for the Palestinian security forces that America helped train and equip. He also closed the Palestinian diplomatic mission in Washington. In 2020 he released a "peace plan" seen as hopelessly biased: it allowed Israel to keep about a quarter of the occupied West Bank.

Last year Mr Abbas compounded his problems. Buoyed by Mr Trump's plan, the Israeli prime minister, Binyamin Netanyahu, contemplated annexing parts of the West Bank. In protest, Mr Abbas stopped accepting transfers of tax revenue that Israel collects on the PA's behalf. That cash covers 60% of the authority's budget. Without it, many workers went unpaid or received only half their salaries. Some accepted this as a sacrifice for the greater good.

In August, however, it became a needless sacrifice. Israel suspended talk of annexation in return for diplomatic ties with the United Arab Emirates, a decision that could bring economic dividends as well (see Business section). Mr Abbas, like many Palestinians, saw the Emirati move as a betrayal. He was unwilling to reverse his decision on the tax revenue without some diplomatic victory of his own. By the time he relented, in November, the Palestinian economy had suffered. Almost one in six Palestinians in the West Bank works for the government, in jobs that tend to pay better than the private sector. The unemployment rate in the West Bank rose from 13% in the third quarter of 2019 to 19% a year later.



No surprise, then, that the Biden administration seems a breath of fresh air. The new president has already promised to renew aid to the Palestinians and restore diplomatic ties. Yet some of the hope in him is misplaced. For a start, Mr Biden will not reverse all his predecessor's policies, as Tony Blinken, his secretary of state, made clear at his confirmation hearing. Asked if the administration recognised Jerusalem as Israel's capital and planned to keep America's embassy there, he gave a succinct answer: "yes and yes".

Nor is the new president a miracle worker. He cannot end the schism between Palestinians nor reverse the hawkish tilt in Israeli politics. America has spent three decades trying to broker a deal between Israel and the Palestinians; well-intentioned presidents working in better circumstances have failed. Mr Biden's inbox is filled to overflowing and his political capital is limited. The moribund peace process is unlikely to be a priority.

Even many Palestinians would think it a wasted effort. Just 2% believe there is a good chance of securing their own state in the next five years. Most expect to be stuck with the status quo. They have differing ideas about how to break the impasse with Israel (see chart). A solid majority, 63%, backs a campaign of non-violent resistance. Pluralities agree with armed struggle (48%) and dissolving the PA (44%), while 29% support abandoning the two-state solution and pushing for a binational state that Arabs and Jews would share between the Mediterranean and the Jordan river.

One can debate the merits of each path. Calls for a one-state solution would meet broad opposition in Israel. Even in the most amoral assessment, the violence of the second *intifada* was a strategic mistake, one that hardened public opinion against Palestinians both in Israel and overseas. These debates are common in the territories, in cafés, at conferences on social media—everywhere, it seems, but in the halls of power. Mr Abbas may win another four years in office. But he has nothing to offer except the same ideas that led nowhere over the previous sixteen.

Morocco

Sex, lies and videotape

The regime is peeping on its critics in an effort to silence them

WHEN A FOREIGN journalist needs a pithy quote, or diplomats want to talk about human-rights abuses in Morocco, Fouad Abdelmoumni usually obliges. His expertise is microcredit, but he is also an articulate critic of the *makhzen*, the country's royal court. So recently the men of King Muhammad VI (pictured) tried to shame Mr Abdelmoumni into silence. They gained access to recordings of him having sex with his partner. Then they pinged clips to his relatives' phones.

Mr Abdelmoumni says dozens of the king's critics—from liberals to Islamists—have faced similar smear campaigns. Since 2019 the regime has tried and jailed three prominent journalists for sexual offences, including rape. Media in thrall to the *makhzen* hail these as victories for the country's #MeToo movement. Independent journalists say they are being cowed by the king and his kangaroo courts. Several women who testified against the journalists said their statements were falsified. At least one of them was jailed, too.

Until the Arab spring uprisings in 2011, Morocco's press was among the region's freest. Independent magazines and websites, such as *TelQuel* and *Lakome*, ran features on the king's personal finances and his alleged ties to drug smugglers. But since then, and although the Arab spring protests in Morocco were relatively tame, the press has come under increasing heat.



The cranky king

The makhzen has leant on advertisers, causing the revenues of critical outlets to collapse. Editors have been thrown into jail or chased abroad. Some relief seemed to come in 2016, when prison sentences for journalistic violations were abolished. Now, though, the government threatens cheeky reporters with criminal offences unrelated to their work.

Observers liken the repression to that of Hassan II, the current king's ruthless father. Others draw comparisons to Zine el-Abidine Ben Ali, the former dictator of Tunisia who used sexual revelations to besmirch his critics. The makhzen's hypocrisy adds another layer of outrage. When a female police officer in El Jadida filed harassment charges against her boss in 2016, her salary was frozen. The boss's brother-inlaw, Abdellatif Hammouchi, is the kingdom's security chief. That same year King Muhammad caused an outcry when he paid the legal fees of a Moroccan pop star being tried for rape in France.

It is not just that naysayers are being muzzled. The regime and its loyalists have also flooded the market with dozens of online outlets and launched an army of trolls to retweet positive headlines. Barlamane, an online paper, is run by a former interiorministry official. Another popular outlet is thought to be owned by a confidant of the king. "They killed the independent press," says Aboubakr Jamai, the founder of Lakome, who fled to France years ago after another outlet he founded, Le Journal Hebdomadaire, was shut down by the authorities.

In 2011 the king promised to chart a "democratic course" for Morocco, but he still rules unaccountably. Royal pronouncements, such as his recent decision to establish relations with Israel, go unquestioned. His underlings take the blame for any problems. In December, for example, the king announced a programme to supply vaccines for covid-19 free to all Moroccans, leading to gushing headlines in the regime-friendly press. Six weeks on, the programme is just getting started. The delay, say ministers, was due to bottlenecks in the supply.

"I used to assume that the wide margin of manoeuvre we had was due to the democratic inclinations of the king," says another editor who fled abroad. "It's just that it took him time to consolidate as an absolute monarch." The pandemic hasn't helped. The government has stopped holding press conferences, ostensibly to maintain social distancing. People are fed up with a lack of jobs and shrinking economy, but they are reluctant to protest because of the virus.

Still, some refuse to lie low. Last month, after the police arrested his friend, Mr Abdelmoumni broke his silence and revealed the government's attempt to blackmail him. "I expect I'm now on the list for detention," he says. "Or worse."



African diets

Feast and famine

Why obesity and malnutrition often co-exist

very wednesday women in villages Earound Monze, Zambia, meet to swap recipes. Tables are lined up in a shady spot, covered in fluorescent mats and piled with tupperware. Each dish is introduced alongside its health benefits: porridge with moringa powder is perfect for babies, groundnut butter is for "bodybuilding". When three types of soyabean sausages are presented there is a pause and much laughter. These are to "build the family".

The meetings aim to prevent undernourishment. Seemingly paradoxically, they also aim to prevent obesity by showing farmers a variety of goods they can cook without venturing to shops stocked with processed food. Allan Mulando, from the UN'S World Food Programme, which helps organise the meet-ups, points to a small tray of local produce. "Everything required is here," he says.

In the rich world children who do not finish their meals are often scolded and told that there are people starving in Africa. In fact, the number of obese people in the region is growing, too. This is because, before covid-19 struck, average incomes had risen and more people had moved to cities, where they acquired a taste for junk food. Expanding waists are linked to long-term health problems such as diabetes and high blood pressure. The pandemic, which is especially dangerous for the overweight, makes the issue even more pressing.

Development wonks have long worried

about middle-income South Africa, where 40% of women and 15% of men are obese, which is defined as having a body-mass index (BMI) of 30 or more. Much of the rest of the region is heading in the same direction, apart from a few of the very poorest countries such as Chad and Mali. In Zambia, for example, 35% of women and 20% of men are overweight, meaning they have a вмі above 25. More children are getting fat, too.

Processed food drives the obesity epidemic in cities. As the hard-up take jobs far from home, they are eating outside their homes as much as the rich do. Many flock to street stalls that hawk chips, sweets and pre-prepared millet and sorghum. Junk food is everywhere. A survey found that 25% of children aged between six months and five years in Niger had scarfed at least one packaged snack or drink in the previous 24 hours. It was 30% in Burkina Faso, and over 40% in Mali and Ivory Coast.

Few people are educated about the risks of junk food. Often poor mothers feed babies fizzy drinks and sugary juices alongside breast milk. They also snack on cheap crisps and biscuits. Junk food is "exciting for people, it's new, it's convenient," says Fathima Abdoola, a nutritionist in Lusaka, Zambia's capital.

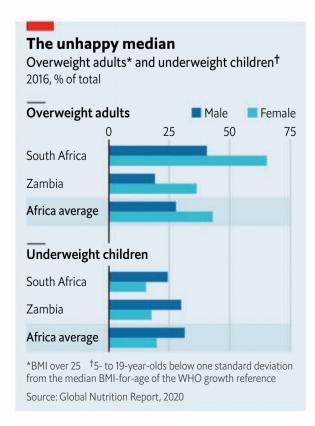
In many cases a healthy diet is out of reach, even in the countryside. In Monze farmers often sell valuable crops like legumes and vegetables for cash and survive on nshima, a traditional maize porridge. A >> day's worth of nutritious food, including fruit, milk and meat, costs about 70% of the average daily household income per person in sub-Saharan Africa.

The World Health Organisation reckons that 7% of people in Africa had diabetes in 2014, which was more than double the rate in 1980. The prevalence of high blood pressure has risen too. Chronic diseases not only harm people. They also make them less productive, and therefore poorer than they would otherwise be.

Rising obesity does not mean that hunger has been banished. About 30% of boys and 20% of girls aged five to 19 in Africa are still underweight (see chart). Policymakers warn of a "double burden of malnutrition", where hunger and obesity co-exist within the same village or even the same household. Joachim von Braun at the University of Bonn takes the example of an overweight mother who saves time and money eating junk food but has an underweight child.

In parts of the continent people think corpulence is beautiful and associate it with wealth. A study in Uganda found that fat people find it easier to get credit. Some wealthy city folk reject healthy local produce, such as okra, as "village food", and gorge on burgers instead.

Tackling Africa's weight problem will require many approaches. Children need to be taught about nutrition. Packaged food needs better labels. Cities need pavements so people can walk or jog without being run down by buses. Christopher Murray of the University of Washington reckons there is an inverted U-shaped relationship between income and obesity. Millions of people have pulled themselves out of poverty, where their challenge was getting enough calories to stay alive. But they are not yet rich enough to eat healthy food and keep fit. If waistlines are to shrink, economies will have to grow fatter.



Mining in Africa

A tale of two billionaires

One gets prison, the other a reprieve from sanctions

In DECEMBER 2017 Donald Trump's administration imposed financial sanctions on Dan Gertler. That came as a shock to the government of Joseph Kabila, who was then the president of the Democratic Republic of Congo. Mr Gertler, who was named alongside several allegedly crooked politicians and businessmen, was one of Mr Kabila's closest friends. He was also a middleman who had sold much of Congo's wealth in minerals to the world since arriving there in the wake of war in 1997.

America's Treasury department said that Mr Gertler had "amassed his fortune through hundreds of millions of dollars' worth of opaque and corrupt mining and oil deals". Between 2010 and 2012 alone Congo had "lost over \$1.36 billion in revenues from the underpricing of mining assets that were sold to offshore companies linked to" the Israeli billionaire, it said. The sanctions froze Mr Gertler's bank accounts and prevented any firm from doing business with him in dollars.

In a late Christmas gift, Mr Trump's administration seems to have undone that work. On January 24th the Sentry, an anticorruption watchdog based in Washington, revealed that in its last days Mr Trump's administration had granted Mr Gertler a special licence to do business in dollars. The licence is, legally, a "specific" one which allows only certain activities. But unusually it seems to allow Mr Gertler to do almost anything, for a period of a year. Mr Gertler, who denies wrongdoing, had lobbied hard for the waiver; among others he hired to press his case was Alan Dershowitz, a celebrity lawyer who has also defended Mr Trump.

The news came just days after another Israeli billionaire, Beny Steinmetz, who also has French citizenship, was convicted in a Swiss court of paying bribes to gain access to Simandou, an iron-ore seam in Guinea. His conviction (he is appealing) brings to an end a sordid story that came to light in part thanks to documents collected by Mamadie Touré, the youngest of the four wives of Lansana Conté, Guinea's president until his death in 2008, through whom bribes had been funnelled. After her husband died she had fled to Jacksonville, Florida, where the FBI acquired the documents.

On the face of it, the two Israeli billionaires, both involved in questionable deals in mining in Africa, seem to have met different fates. But Mr Steinmetz's conviction will have rattled Mr Gertler, who, despite the sanctions, has never been charged with any crime. Since being put on the sanctions list, Mr Gertler has found it much harder to do business, even if he has managed to keep working. Glencore, an Anglo-Swiss commodities trader, initially stopped its payments to him. When he sued in a Congolese court, the firm decided to pay him royalties—roughly 2.5% of the sales from its Congolese mines—in euros, rather than risk its Congolese mining business being taken away by a court order.

Yet the billionaire's luck may be running out. His friend and sponsor, Mr Kabila, is losing his grip. When he conceded the presidency in 2019, Mr Kabila kept control of the majority in parliament, and had allies in several key posts. On January 27th Congo's national assembly voted to eject the prime minister, Sylvestre Ilunga Ilunkamba. This clears the way for the new president, Félix Tshisekedi, to appoint more of his own people to ministries and agencies, including Gécamines, the state mining group that gave Mr Gertler his concessions. If Mr Tshisekedi succeeds in consolidating his grip over Congo's minerals, he could press Gécamines to take away Mr Gertler's mines and royalties.

That is why the new sanctions waiver is so useful, reckons Elisabeth Caesans of Resource Matters, a Brussels-based research group. In November Mr Gertler produced a bizarre video in which he proposed to sell some of his royalty rights to ordinary Congolese people (two months later, the details remain unclear). This, said Mr Gertler, is an invitation to "come and enjoy the wealth of the copper and cobalt of the DRC". It may, in fact, be an insurance policy. By selling a lot of Congolese people a stake in his projects, he reduces the chance of his contracts being cancelled. With his new licence, thanks to Mr Trump, he can now be paid in dollars.

In theory, Joe Biden's administration could revoke the licence as easily as Mr Trump issued it. Yet that risks exposing the Treasury to a lawsuit, says Brad Brooks-Rubin of the Sentry. Mr Gertler could claim that taking his licence away would be capricious. Yet as Mr Steinmetz's case shows, losing his licence is not the only risk that Mr Gertler faces if the allegations of corruption persist. The sanctions imposed on him came about after years of campaigning by anti-corruption NGOS. They show no signs of being ready to forgive or forget.

Europe



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Europe's vaccine rows

Shots fired

PARIS

Delays in vaccine delivery are causing tempers to flare and timetables to slip

The START of 2021 in Europe was meant to be about jabs aimed at arms. Instead, it is fingers that are being pointed, and threats brandished. Delays to covid-19 vaccine deliveries in EU countries threaten to slow the group's already-lethargic inoculation plans. News of production snafus has sent tempers flaring as politicians, Eurocrats and drug firms try to apportion the blame. Calls for vaccine protectionism to fix the problem—for Europe—could stop other countries securing shots.

The EU's vaccination campaign is already among the most sluggish in the rich world: only two doses have been administered for every 100 Europeans, compared with seven in America and eleven in Britain. Things seemed to be improving, albeit slowly, as national governments stepped up efforts to distribute and administer jabs (see next story). Then AstraZeneca on January 22nd discreetly advised the European Commission in Brussels that its factories

in Europe were facing difficulties in producing sufficient quantities of the jab it had developed alongside the University of Oxford. That came on top of Pfizer-BioN-Tech, another vaccine-maker, also pushing back promised deliveries by a few weeks.

What AstraZeneca had tried to paint as a mere logistical rejigging caused an outburst of fury rarely mustered by the commission. The EU's executive arm has been in charge of procuring jabs for the club's 27 member states. National politicians had already groused that Eurocrats had been too slow to buy vaccines and to approve them. The news that AstraZeneca deliveries would be scaled back by two-thirds or more in the first quarter of the year compounded the perception of indolence in Brussels.

The commission responded by recycling the anger and diverting it towards the Anglo-Swedish firm. Stella Kyriakides, the EU's health commissioner, pointed to large prepayments Europe had made to get its

production lines up and running and demanded a return on its investment. Leaks suggest the commission thinks that Astra-Zeneca has been sending Europe to the back of the queue, perhaps to satisfy other customers. Jens Spahn, Germany's health minister, pleaded for Europe to restrict exports of doses produced in EU facilities.

On January 26th Britain, fearful lest such a policy might cut off its imports of the Pfizer vaccine from Belgium, warned of the perils of "vaccine nationalism". It later emerged that the EU wanted AstraZeneca to compensate for shortfalls in European factories from its British facilities; since then, Britain has not repeated its appeals for cross-border solidarity.

Waiting for Soriot

The AstraZeneca delay is particularly unwelcome in Europe. Though its vaccine was not expected to be approved by EU regulators until January 29th (and may at first be reserved for under-55s), the company had promised lots of jabs quickly. A schedule of expected deliveries in France released on January 7th suggested that fully 62% of all inoculations in February were to be with the AstraZeneca serum.

Other EU countries will be in a similar position. Given that much of Pfizer's vaccine output now needs to be reserved for second doses for those who have already

▶ had a first Pfizer jab, some parts of Europe, such as Romania and bits of Italy, have already slowed down inoculations. Back-of-the-envelope estimates suggest far fewer first jabs could be administered than in recent weeks, at precisely the time Europe was hoping to increase them. That might mean longer lockdowns, deeper economic slumps and more irate voters (such as in the Netherlands, where riots broke out on three consecutive nights over curfews).

The delivery delays focused attention on the commission's role as the central purchaser for the vaccine. Each country going it alone might have resulted in an unseemly free-for-all, leaving some Europeans jabbed and others not. But this left the European Commission in charge of a purchasing contract of the sort usually handled by member states. Unlike them, the Brussels bureaucracy is not well-versed in the intricacies of placing multi-billioneuro orders for the likes of fighter jets and new hospitals. Partly as a result, EU deals to secure vaccines were signed several months after those in Britain and America.

As much as it has huffed and puffed, the EU seems to have little recourse against AstraZeneca. The contract it signed is not public, but another one, thought to be similar, is. It suggests that vaccine suppliers hold all the cards in case of delays. Pascal Soriot, the boss of AstraZeneca, said the deal his firm signed with the EU was "not a commitment" to Europe, merely a promise to try to supply doses quickly. In an interview with European newspapers, he said the EU was being treated fairly—but that it should have tempered its expectations, and placed its order earlier.

Having pre-fed AstraZeneca all the carrot and left itself with no stick, Europe is left with few options. It is hardly likely to cancel its order of vaccines—a delayed jab is almost infinitely better than none at all. Any money that the commission could recoup would be insignificant, and would probably take years to arrive.

Hence the explosive idea from Mr Spahn to curb exports. Such an approach would jar with European proclamations of the importance of free trade, and of sharing vaccine supplies beyond the rich world. Others despaired. How could the EU credibly deal with protectionism by, say, India if it used export controls itself as a first resort in a scrap over vaccines, wondered one diplomat. "We feared a Singapore-on-Thames [in the shape of post-Brexit Britain]; these ideas are turning us into Cuba-on-the-Seine." As tempers cooled, the commission seemed minded to implement a softer "transparency mechanism" designed not to block shipments but to track them. But the row is not over, and if the delays continue or worsen, the threat of export restrictions seems likely to re-emerge. In a crisis, it is often every man for himself, after all.

Vaccinations in France

Pasteur's lament

POISSY

Why France has taken so long to accelerate its vaccination roll-out

The Logo outside the vaccination centre shows a red-caped Super Granny zapping the spiked coronavirus with one fist, while clutching a medical syringe in the other. Named "Chez Mauricette", a nod to the first French patient vaccinated against covid-19, the place sounds more like a friendly local café than a health clinic. In the industrial town of Poissy, north-west of Paris, this is a deft antidote to grim times, and an effort to confront the peculiar scepticism of the French. "People are exhausted and anxious," says Karl Olive, the town's centre-right mayor, and a former football referee: "They need a bit of fun."

On a recent weekday afternoon, patients wait calmly to be seen by a doctor before moving into a vaccination cubicle. After opening on January 7th, this centre is now jabbing over 600 arms a week. Alain and Anne-Marie Guillaume celebrated their 60th wedding anniversary there by getting an injection each. Poissy was the first centre to open outside a hospital or care home. Rather than waiting for regional health authorities to draw up a map, Mr Olive put in phone calls to the right people and told them his centre was ready to go. It was approved. "You can't expect everything from the central state," says Mr Olive. "Mayors in France can solve problems too."

Poissy's can-do defiance says much about the weaknesses of the French state, which contributed to a glacial early vaccination roll-out. This surprised many ad-



To arms, citizens!



mirers of France's well-financed and normally efficient health system. Indeed the number of daily covid-19 deaths in France is now the lowest per head among big European countries. France's campaign has now picked up pace, overtaking Germany's in daily doses administered per head. Yet the running total, of 1.2m doses injected by January 26th, is still lower in France than in Germany, Italy and Spain—and way behind Britain. This cannot be blamed only on delays in securing approval and delivering vaccines, which have affected all the EU (see previous story). Three specific, linked problems explain French dawdling.

The first is an inbuilt caution due to the criminal liability of elected officials in France. In 1999 Laurent Fabius, a former prime minister, was charged with manslaughter (and later acquitted) in a contaminated-blood case. Over 100 legal complaints have been filed against ministers, including Jean Castex, the prime minister, and Olivier Véran, the health minister. So health policymakers struggle to weigh risks and benefits dispassionately.

A second is the surprisingly strong antivaxxer sentiment in France, land of Louis Pasteur. In December just 42% told a poll they would get a jab. Part of this hesitancy stems from French health scandals, including the ongoing prosecution of a drug company over deaths of diabetics, and a massive over-ordering of vaccines against H1N1 (swine flu) in 2009. Conspiracy theories about big pharma blend with the antielite sentiment behind the gilets jaunes (yellow jackets) or Didier Raoult, a Marseille doctor who pushed hydroxychloroquine to treat covid-19. The French, concluded government, the needed ultra-careful handling. "It was a choice," says a government source; "If we'd said 'let's just go for it', people would have said they don't trust us."

Far from colliding with the administration's instincts, deliberate prudence matched them. This is a third factor: a centralised French system that tends to prefer

• elegantly polished design over pragmatic local initiative. "It's an énarque tendency," says one, referring to the Ecole Nationale d'Administration, which trains the elite. In some bureaucracies, such as finance, clear command chains have nonetheless enabled political decisions to be put in place rapidly. But the health system is a manytentacled beast, linking the ministry, national agencies, 18 regional authorities and departmental préfectures. "We have a central state that wants to decide and control everything, but lacks clear hierarchical lines," says Nicolas Bauquet of the Institut Montaigne, a think-tank: "On the ground everybody is expected to wait for the plan."

The upshot was a complex plan that wasted precious time. Before jabbing carehome residents, for instance, the health ministry produced a 45-page vaccination guide, including six pages on how to obtain residents' consent. As the delays this caused became clear, rules limiting vaccines to care-home residents were shelved. and health workers over 50 included.

Back in Poissy, the mayor thinks President Emmanuel Macron needs to give the "ants' nest" of the "techno-structure" a "big kick". Paradoxically, for all the self-administered caution and rules, vaccine supply is now more likely to hold things up. For the slow roll-out has inadvertently turned the distrustful French into impatient enthusiasts: 56% now say they want a jab. ■

Italy

Going, going...

But Giuseppe Conte may not really be gone

N THE COLOURFUL jargon of Italian poli-**L**tics, the latest upheaval, which reached its latest turning-point on January 27th. That was when the president, Sergio Mattarella, began formal consultations with the country's political leaders, is a crisi al buio, or "crisis in the dark".

Sometimes, everything has been carefully settled in advance. The prime minister steps down, as Giuseppe Conte did the day before, but in the knowledge that he there has yet to be a "she"—can count on majority support in parliament for a reshuffled cabinet.

No such certainty exists this time. Without the support of one of the smaller parties in his coalition, Italia Viva, Mr Conte no longer has a majority in the Senate, the upper house of parliament. Once he has spoken to the speakers of the two houses and the heads of each parliamentary group, President Mattarella may-or



If he stays it will be double

may not—ask Mr Conte to try to form his third government in three years. But even if a solution can be found soon, which does not look easy, the outcome could be a government that is shaky or explosive.

That gives the crisis a Europe-wide significance. Under the EU's plans for recovery from the pandemic, Italy will get the biggest allocation, of more than €200bn (\$240bn) in grants and loans, to be raised mostly by borrowing underwritten jointly by member states. Already doubts existed about Italy's ability to put its windfall to good use. Its track record for taking advantage of European funds is dismal.

By September 30th, three months before the expiry of the EU's current budget, Italy had yet to find an acceptable use for 14% of the "Structural and Investment" funds to which it was entitled. Portugal, Romania and Croatia had all, by contrast, allocated their respective quotas. "There is a great deal of fear with respect to the crises that could affect [Italy]," said David Sassoli, the Italian speaker of the European parliament. "The European recovery plan should be getting under way and all the countries ought to be concentrated on that."

Mr Conte's coalition, which includes the ideologically eclectic Five Star Movement (M5S), the centre-left Democratic Party (PD) and the more left-wing but smaller Free and Equal movement, had been in trouble since January 13th. That was when the ministers from a fourth coalition party, Italia Viva, left the cabinet, mainly in protest at the plans for spending Italy's recovery funds.

Though polling a mere 3%, Italia Viva, led by a former prime minister, Matteo Renzi, still has enough senators to deprive the government of a majority in the upper house. And they were expected to defeat it in a vote on a key reform, of the justice system, on January 27th. Mr Conte decided to jump before he was pushed.

That should boost his chances of being asked by Mr Mattarella to try either to woo back Italia Viva or to replace it with independent or opposition lawmakers. A first snag is that Mr Conte has reportedly said he wants nothing more to do with Mr Renzi. And the same is true of some in the PD and M5s. That could, of course, be a bluff. But a second snag is that Mr Renzi's many criticisms of the government's performance suggest he may not be content with a reshuffle that gives his tiny party more clout. He may genuinely want Mr Conte's head.

If so, Mr Conte's only resort would be to construct a new majority. Silvio Berlusconi, whose conservative Forza Italia party occupies 54 of the seats in the 321-seat Senate, has signalled his backing for a broader coalition. But then another snag arises: the Five Stars refuse to ally with a party they view as incorrigibly sleazy. Mr Conte had hoped to lure over a posse of Christian Democrats. But-yet another snag-their party secretary was put under formal investigation earlier this month, suspected of helping the Calabrian mafia.

So another way out of the crisis could well be a new prime minister, heading either the previous coalition or a new one. But he or she would need to be acceptable to all concerned. If no such candidate were found, and with all alternatives exhausted, Mr Mattarella would have to call a snap election in the midst of a pandemic. That, polls suggest, could lead to a government of the hard-right Northern League and the Brothers of Italy, heirs of the neo-fascist movement. But an election is still the least likely solution. A reform, approved by a referendum last year, cut the number of seats in parliament by around a third. The current lawmakers' instinct for self-preservation will surely mean that everything possible is done to avoid a ballot.

Germany

Wheezing

BERLIN

The economy minister slashes his optimistic forecast

If Europe's Economies were a brass band, Germany's would be the tuba: the biggest, most reliable generator of oompah-pah on a continent of cornets and bugles. Last spring it coped with the sharpest recession since the second world war better than its neighbours, thanks to a shorter and looser covid-19 lockdown and a massive fiscal stimulus. This year Germany was expected to recover its mighty puff more quickly than its peers.

However, the latest statistics suggest that the tuba's valves are stuck: the recovery might not be as robust as forecast. On January 14th Destatis, the official statistics agency, announced that the German economy shrank by 5% last year. This is painful, but not nearly as bad as the double-digit contractions expected in Spain and several other European countries. In the last quarter of the year it stagnated, Destatis said.

Germany will almost certainly find itself back in recession in the first quarter of this year. A survey of purchasing managers by IHS Markit, a provider of financial data, published on January 22nd, suggests that the economy is barely growing this month. Manufacturers are hit hard by shortages of containers for deliveries and higher prices of commodities. Florian Hense, an economist at Berenberg, Germany's oldest private bank, predicts "a dark winter" with a contraction of 1% for the first quarter compared with the previous quarter "with the risks tilted to the downside".

A setback in the first quarter means that the predictions of the government and economic research institutes were too optimistic. On January 27th Peter Altmaier, the German economy minister, slashed his forecast for economic growth for 2021 from 4.4% to just 3%. Leading economic research institutes, which in December predicted 4.7% growth for 2021, are also likely to cut their forecasts.

Though Germany was widely admired for its level-headed management of the first wave of the pandemic, it is struggling with the second. It imposed a light lock-down at the start of November that closed down restaurants and cinemas but left shops open. As infection rates kept creeping up, the lockdown was extended and toughened in mid-December with the closure of all non-essential shops and schools. On January 18th Germany's central bank said that the economy is managing to stay afloat but could suffer a "sizeable set-

back" if coronavirus curbs are extended again. The following day, after hours of emotional debate with the state premiers, Angela Merkel, the chancellor, announced that the lockdown would be extended until mid-February, and also slightly toughened.

Things could get worse. The number of insolvencies last year was lower than in 2019 thanks to a ruling by the government that gave companies more time with their paperwork. That concession has now expired, and Stefan Schneider, chief German economist at Deutsche Bank, predicts a wave of bankruptcies. Even businesses that were in good health before the pandemic could be affected. The German Retail Association warns that up to 50,000 shops may go belly up in the coming months. And according to KfW, a public development bank, more than a million jobs in small and midsized businesses are at risk.

As soon as temperatures rise, and more Germans have received the covid-19 vaccine, prospects are rosier. "Germany is structurally still strong," says Holger Schmieding, chief economist at Berenberg. Thanks to its generous furlough scheme Germany will not see mass unemployment. The second lockdown is hardly affecting manufacturing, which is humming. Machinery and carmaking, two pivotal industries, will take off again in 2021, predicts Mr Schmieding.

Even so, the structural problems that predate the pandemic, such as an ageing workforce, a delay in digitising government and businesses, creaking infrastructure and over-dependence on exports, have not gone away. Little more can now be done to tackle them in an election year, but the next chancellor will have to take a deep breath and get to work.

Turke

A cult leader gets 1,000 years in jail

ISTANBUL

Adnan Oktar was found guilty of keeping sex slaves

POR YEARS, Adnan Oktar's cult made for outrageously bad television. Newspapers indulged him as a crackpot, an Islamic preacher surrounded by a harem of women in heavy make-up and swimsuits. (Mr Oktar argued the bikini was a form of religious covering.) Few people took him seriously. The authorities mostly seemed to ignore him.

His luck ran out on January 11th, when a Turkish court sentenced him to over 1,000 years in jail for fraud, torture and sexual abuse. Mr Oktar was a chameleon. He embraced, then disavowed, anti-Semitism. He convinced his followers he was the messiah. He preached a conservative strand of Islam in the 1980s, dialogue betwen Christians, Muslims and



See you in 3021

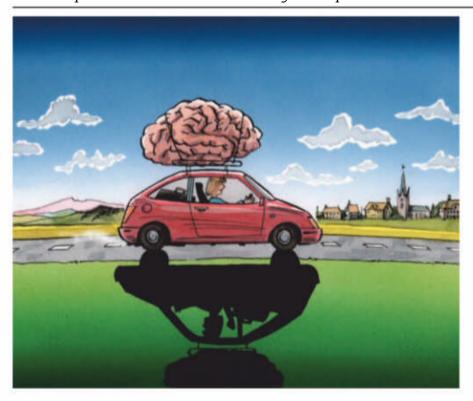
Jews after 2001, and after 2011, when he launched his own TV channel, sex. On his show, Mr Oktar would appear flanked by scantily clad women, whom he called his "kittens", and men dressed up to the nines. Between sermons on world events and Islamic doctrine, he would dance with his "kittens" to pop music.

In his spare time, he denounced Darwin. He collected fossils, campaigned against the teaching of evolution and wrote an 800-page doorstopper called the "Atlas of Creation", copies of which he mailed to politicians and scientists. When Richard Dawkins, a biologist, called him a quack, Mr Oktar convinced a court to block his website in Turkey. Last year, his atlas made a surprise appearance on the bookshelf of Christine Lagarde, the head of the European Central Bank, during a Zoom call. Ms Lagarde had never bothered to open it, apparently.

Reports surfaced that Mr Oktar was grooming his followers as sex slaves with cocaine, video and blackmail. "Every freedom I had was gone," says a former follower. Until recently, such allegations earned Mr Oktar only a couple of brief spells in prison, and one in a mental hospital. Few of his followers dared to speak out. Critics were sued for libel. When the police closed in, Mr Oktar resorted to conspiracy theory. He blamed the "homosexual lobby" and "the British deep state" for his legal troubles. His arrest, he claimed, was the work of Queen Elizabeth. Like so much of what he said, it wasn't true.

Charlemagne | Eastern Europe's brain gain

How the pandemic has reversed old migration patterns



A FTER A DECADE in Britain, it took Alexej Kirillov barely 24 hours to decide to leave. In March 2020, as Europe's borders slammed shut, Mr Kirillov, a 31-year-old strategy consultant, had a choice: lockdown in a costly, lonely London flat or go home to the Czech Republic and be close to family. "I was not planning to leave for another five years, or longer, or never," he says. But covid-19 changed his mind. Nearly a year on, he has set up shop in his homeland. A temporary return has become permanent. "Now I'm back, I think why didn't I move back sooner?"

He was not alone. In 2020 Europe saw a great reverse migration, as those who had sought work abroad returned home. Exact numbers are hard to come by. An estimated 1.3m Romanians went back to Romania—equivalent to three times the population of its second-biggest city. Perhaps 500,000 Bulgarians returned to Bulgaria—a huge number for a country of 7m. Lithuania has seen more citizens arriving than leaving for the first time in years. Other measures show the same. In Warsaw, dating apps brim with returning Poles looking for socially undistanced fun. Politicians in eastern Europe had long complained of a "brain drain" as their brightest left in search of higher wages in the west. Now the pandemic, a shifting economy and changing work patterns are bringing many of them back. A "brain gain" has begun.

Migration vexes European politicians. Freedom of movement—the ability to move to any country in the EU—is among the most popular benefits of belonging to the club. It is especially cherished by citizens of former communist countries, who have grim memories of being prevented from travelling by their own rulers. However, although most Europeans believe in freedom of movement for themselves, some are less sure about granting it to others. (Hence Brexit.) And governments of countries that lose lots of clever, enterprising young people tend to lament this fact. Graphics on Lithuanian government websites show the population dwindling from 3.7m in 1990 to 2.8m in 2019, thanks to emigration and low birth rates. About 2m Poles—or 5% of the country's population—live elsewhere in Europe. Often, it is the most qualified. Doctors and nurses quitting Romania are a particular bugbear. Migration creates a clash of interests between individuals, who want to better their own lot, and governments, who would often prefer them to stick around and pay taxes. Ivan Krastev, a Bulgarian writer, observes that "It is easier to go to Germany than to make Bulgaria function like Germany." And so people do.

Yet even before the pandemic, this process had started to reverse in some places. Emigrants from the Baltic states have been heading back, having earned a nest-egg or picked up useful skills in western Europe. Homeward-bound Estonians have outstripped leaving Estonians since 2017. A government programme to help returning Lithuanians had 215 consultations in 2015; this ballooned to nearly 9,000 by 2019. Similar tales can be heard in bigger countries. In 2018 the number of Poles abroad started to fall for the first time in nearly a decade and has steadily declined ever since, according to the Polish Economic Institute, a think-tank. Dedicated schemes—ranging from glossy propaganda about life in the Baltics to free Polish lessons for children born abroad—are common.

Migration anywhere in the world is often temporary. In Europe several factors are pushing and pulling people homewards. Liam Patuzzi of the Migration Policy Institute Europe, a think-tank, notes that the economic gap between east and west is closing. Labour markets in eastern Europe are hot. Before the pandemic, the unemployment rate in the Czech Republic was about 2%, the lowest in the bloc, down from almost 9% when it joined in 2004. Wage gaps, though still large, are falling. In 2010 a Romanian who moved to Italy could expect to earn five times more; in 2019, only three times. For the highly skilled the gap is narrower still. Throw in perks such as Romanian software developers being exempt from income tax, and a job in Bucharest can trump one in Brussels.

Remote working alters the calculation, too. A new grey economy has sprung up across the EU, with white-collar staff living in one country but illicitly working in another (and paying tax in the wrong place, as a result). Often these people are expats in their own country, physically at home, but telecommuting across a border. Headhunters now dangle the prospect of working anywhere, says a Romanian private-equity executive. Once the taxman catches up, however, those grey workers will have to choose: stay or go.

Darling, you got to let me know

Blue-collar workers typically have fewer choices. Waiters and cleaners, many of whom are migrants, cannot work remotely. Some 700,000 foreign workers have left London during the pandemic, deciding that the occasional glimpse of the Thames did not make up for high rents and the sudden collapse of job opportunities. But for white-collar workers the link between opportunity and location could be drastically weakened, spelling another shift in migration patterns. Greece, which saw phalanxes of youngsters leave during its bail-out, is eager to attract them back. If the sun is not tempting enough, the tax breaks help. Workers who move to the country can have their tax bill halved for the first seven years.

The number of people flowing back to eastern Europe is still much smaller than the number who originally left. And those who went home because of the pandemic may head off again when the lockdowns ease. About two-thirds of the Bulgarians who returned plan to migrate again, according to the European Council on Foreign Relations, a think-tank. In the long run, even as wage gaps close, some people will always seek adventure in foreign lands. Open borders in Europe allow people to choose where to live, which inevitably means that less attractive places will lose population. But nothing remains the same. Countries can grow more appealing, and people can change their minds quite suddenly about where they want to live. Ask Mr Kirillov.



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Scotland

Searching for the exit

Most Britons think Scotland is heading for independence. Most Scots want it. But they lack the means to get it

As Boris Johnson flew northward on January 28th to try to persuade the Scots of the value of the union, the land beneath him seemed ready to break apart. Many unionists think the United Kingdom is bound to disintegrate. Brexit has loosened the bonds between the four nations. More than twice as many Britons think Scotland will get independence in ten years than think the country will hold together (see chart on next page). Fewer than half say they'd be upset.

The Scottish National Party (SNP) is expected to win a majority in elections to the Scottish Parliament in May, which it will use to seek a second referendum on separation. In the first ballot, held in 2014, Scots voted to remain in the UK, but a majority now consistently say they want independence. Nicola Sturgeon, the SNP leader, has strong approval ratings; Mr Johnson does not. Brexit is causing havoc with the Scottish fishing industry. Scots think independence will leave them poorer, but like Brexit the project is a triumph of constitu-

tional ideals over economic interest.

And yet to Scottish Nationalists the United Kingdom looks vexingly robust. Despite support for independence, a mechanism to break up the UK lies frustratingly beyond reach. On January 24th, Michael Russell, the SNP minister responsible for the constitution, presented his impatient members with a new plan to force a referendum. Its chances of working are slim.

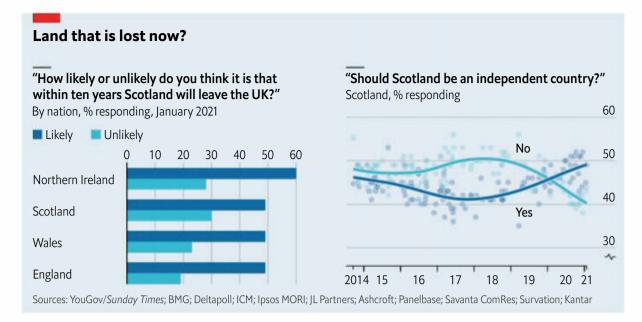
The reason is Britain's constitutional law. There is no British equivalent of the EU's Article 50, the secession clause any state can invoke. Rather, the Scotland Act, which created the Scottish Parliament, stipulates that the constitution is Westminster's domain. David Cameron's government granted permission for the 2014 referendum under a Section 30 order, a device which allows the Scottish Parliament to pass laws in areas normally reserved for Westminster. Mr Johnson says that he won't grant such an order, and that the wait between Britain's referendums on Europe in 1975 and 2016 is "a good sort of gap"—

suggesting no Scottish vote until 2055.

Yet the government is alarmed at support for independence, and is drawing up a strategy to reinforce the union. Mr Johnson used his visit to praise the role of Whitehall and the British Army getting covid-19 vaccines to Scotland. He faces none of the pressure from within his party to hold a vote which Mr Cameron did on Europe. A prolonged independence rift in Scotland would allow the Tories to scoop up the votes of pro-union Scots.

Many nationalists know this. Their fears that independence will slip through their fingers if Mr Johnson holds firm were aired at an online meeting on January 22nd of All Under One Banner, a group which organises marches for independence. Some speakers called for strikes and protests outside the snp's headquarters; others accused the party leadership of growing too comfortable with devolution. Angus Mac-Neil, the SNP MP for the Western Isles, reckons Mr Johnson would be "a mug" to agree to a referendum now, and says the SNP should simply use May's election as a ballot on independence. Joanna Cherry, a potential successor to Ms Sturgeon, argues that Irish independence was won after Sinn Fein MPS won a majority in Ireland, meaning no referendum is necessary. Some activists see precedents in how Kosovo and Lithuania split with their masters.

Such talk makes Ms Sturgeon's team wince. She insists any referendum must be



beyond legal question. If not, it is a dead end; the EU, which an independent Scotland would seek to join, would ignore the result. So would the British government, with which it would need to haggle over fishing grounds and pensions in lengthy divorce talks. "We don't get endless shots at this," says a party figure. The deadlock which followed Catalonia's unsanctioned referendum in 2017 serves as a warning.

Mr Russell's plan seeks to navigate between the frustration of his members and the constraints of the Scotland Act. If the SNP wins in May, it will ask Mr Johnson's government again for a Section 30 order. If Mr Johnson refuses, the Scottish Parliament would pass a referendum bill anyway, and dare the British government to challenge it in the Supreme Court.

Mr Russell's scheme will probably unite the independence movement until May's elections, says an SNP hand, "but it doesn't really have legs beyond that." The British government thinks that whatever the result of the elections, the Scottish Parliament does not have the power to call a referendum; and if the Supreme Court looked likely to rule in the Scottish government's favour, the UK Parliament could swiftly change the law to nix the vote.

Alternatively, London could call the nationalists' bluff and dare Ms Sturgeon to push ahead with the unrecognised referendum she has sought to avoid. Douglas Ross, the leader of the Scottish Tories, said he'd boycott any "unofficial" poll. Scotland's constitutional divisions risk becoming sharper if the two governments cannot even agree on the rules for settling them, notes Stephen Tierney, a professor of constitutional theory at Edinburgh University.

Whatever happens in May, it is a difficult moment for Ms Sturgeon's leadership. An inquiry is probing what she knew about allegations of sexual assault against her predecessor, Alex Salmond, who was later acquitted in court. If Mr Johnson digs in, or the Supreme Court rules in his favour, demands for independence may grow, making separation only a matter of time until a

future British prime minister gives in. But it is equally possible that the cause will deflate as Brexit settles, and Scots' focus turns to the state of their schools and hospitals after 14 years of SNP government.

Far from being inevitable, the break-up of the UK would be historically remarkable. Since the SNP's birth in 1934 more than 100 states have secured independence. Almost all were born of war, decolonisation or economic collapse. Breaking away from a prosperous democracy in peacetime is another matter. "There are plenty of examples of nationalist movements in advanced democratic countries, but none of these has led to independence," notes Nicola Mc-Ewen, a professor of territorial politics at Edinburgh University. The SNP has set itself the unusual task of dismantling the British state within the constraints of a legal order that is stacked in its opponents' favour. It wants revolution, without breaking so much as a window.

Language

Learning the drill

UK drill music is taking London slang around the world

THEY SAY my crew's British. We pull up like, 'Who's with it?' Load that clip like grrr, finish," rapped J Emz, a member of OneFour, a Sydney drill crew, in 2019, responding to accusations that the group feigns a British identity to polish its street cred. The threat to mow down critics did not impress Mac11, a member of 21District, a rival crew. "Trying to be UK Bronx, bunch of flops. Do your own thing, you wannabe British gronks."

Rappers outside the United States used to sound American. Nowadays, the spread of grime music and UK drill means aping England's rappers is fashionable. Grime, which uses very rapid beats, emerged in east London in the early 2000s. Drill appeared in Chicago a decade later and soon migrated to Britain, where it got faster and darker. Drake, a prominent Canadian rapper, has borrowed from UK drill and promoted many London rappers.

Crucial to UK drill's success is multicultural London English (MLE), a dialect that combines Jamaican patois with Cockney, American and African slang, as well as other influences from London's melting-pot. "Akhi", from Arabic, is commonly used for "brother", its direct translation, and also "friend". "The language comes first from the street," says Tony Thorne of King's College London, who has compiled a drill dictionary. "Then the performers elaborate the language, then they feed it back to the street." MLE has helped English rappers create a distinctive sound, with a controversial social commentary.

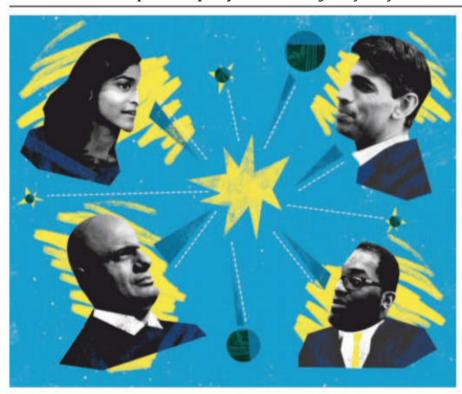
AS UK drill has spread around the world, so has MLE. Dutch crew 73 De Pijp mix in words like "mandem" (from Jamaican patois, meaning a group of male friends) and "oppboys" (a London neologism for a rival gang). Spanish crew 970BLOCK use MLE lingo like "you get me" and "gally" and break into English to compare themselves to Headie One, a London MC: "I'm the one like Headie." Catarrh Nisin, a Japanese grime MC, refers to Boy Better Know, a London grime crew, and raps "Keep it grimy." Some Irish MCS, such as J.B2, have abandoned their native accents altogether.

MLE has also crept into Australian drill. OneFour use a range of MLE words, such as "bruddas" (brothers) and "shh" (silence), a term popularised by Headie One in 2018 to self-censor possibly incriminating lyrics. Even 21District use some MLE, despite their criticism of OneFour's Anglophilia. Many Australian drill MCs are of Polynesian descent and their accents are already different to most young Australians, so a multiethnic dialect appeals to them. Australia, like Britain, has tight gun laws and plenty of knife crime, so London's lingo is more relevant than gun-centric American rap. "Cheffed" (stabbed), "rambo" (long knife) and "ching" (knife) are common. Australian rappers mix MLE with local slang, old Aussie lingo-"digger" (friend), used by Anzac troops in the first world war—and Polynesian—"uso", Samoan for "brother".

Variants of MLE have emerged in other English cities, even among young middle-class folk. The same thing is starting to happen in Australia. Kate Burridge, professor of linguistics at Monash University in Melbourne, notes that her teenage son jokingly uses MLE words such as "mandem". Her colleague Howard Manns says some young Australians use "peng" to mean attractive or high-quality. It is thought to derive from "kushempeng"—fantastic marijuana, in Jamaican patois. ■

Bagehot | Party of colour

The world's oldest political party has done a good job of embracing ethnic diversity



Boris Johnson is such a vivid embodiment of white privilege that it is easy to forget how diverse his cabinet is. In 2005 the Conservatives had only two minority Mps. Today two of the four great offices of state, the Treasury and the Home Office, are run by Asian-Britons, and diversity is so entrenched that black and minority ethnic (BAME) Tories are replacing other BAME Tories in senior positions: Rishi Sunak, the son of Kenyan Asian immigrants, succeeded Sajid Javid, the son of Pakistani immigrants, at the Treasury, while Kwasi Kwarteng, the son of Ghanaian immigrants, succeeded the Indian-born Alok Sharma as secretary of state for business (Mr Sharma remains in the cabinet as president of the forthcoming UN Climate Change Conference).

There are plenty of other talented ethnic-minority MPS rising up the ranks—notably Kemi Badenoch, Claire Coutinho and Bim Afolami—while Mr Javid is tipped for a return to high office. The head of Mr Johnson's Policy Unit, Munira Mirza, is also the daughter of Pakistani immigrants. The party which has two female prime ministers to Labour's zero is on course to produce the first BAME prime minister. Mr Sunak leads the race.

In this, the Tories have done better than the rest of the establishment. The civil service has not yet been run by a member of an ethnic minority, or indeed a woman. The armed forces have not produced a BAME chief of defence staff. Just 3.3% of FTSE 100 chairs, CEOS and CFOS are from ethnic-minority backgrounds. ("Corporate Britain treated 'diversity' as an excuse to give posh women jobs," says a prominent ethnic-minority Tory.) Salma Shah, Mr Javid's former special adviser, says that the two of them were often the only people of colour in meetings.

Two figures deserve much of the credit for the Tories' transformation. David Cameron's decision to introduce an A-list of female and ethnic-minority candidates back in 2005 allowed Conservative Central Office to force local parties to consider fast-tracked candidates without removing their prized sovereignty. Though Margaret Thatcher didn't have much interest in race, she is an icon to the current generation of ethnic-minority MPs because she believed in self-reliance and breaking open closed shops.

The fact that class is still a more fundamental dividing line in Britain than race—which, given that it's easier to change your class

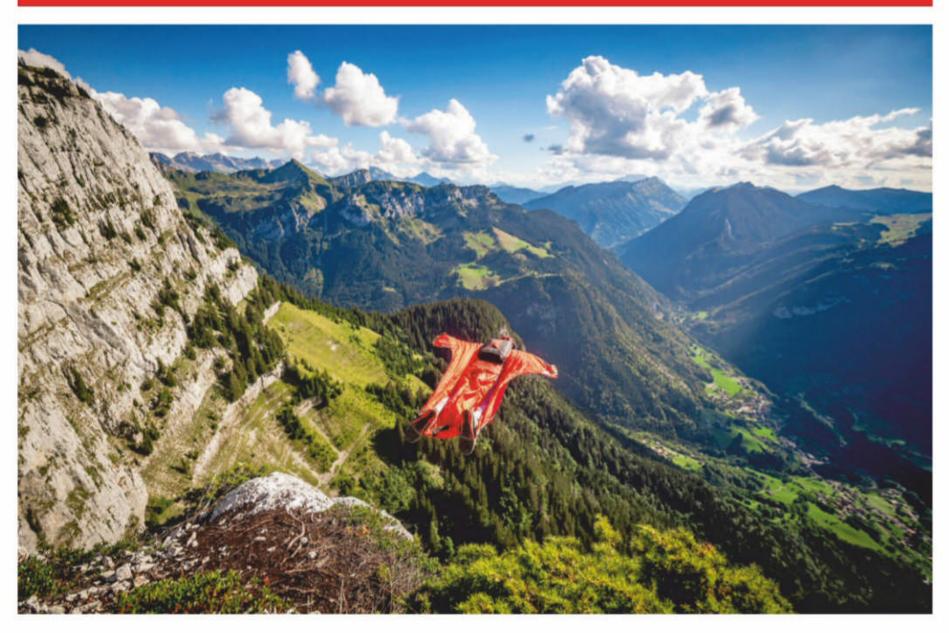
than your race, is no bad thing—partly explains the Tories' success. Several high-flyers thrived at posh public schools. Mr Kwarteng and Mr Afolami were both at Eton, where the former was a King's Scholar and a habitual prizewinner and the latter president of Pop, an elite society, and captain of athletics. Mr Sunak was head boy of Winchester. Other high-flyers are examples of the great Conservative tradition of self-help. Ms Patel was the daughter of shopkeepers; Ms Badenoch, who grew up in Nigeria, returned to Britain at 16 and supported herself by working in McDonald's.

The Conservatives' new diversity underlines the growing divergence between the British and the American right. The Republican Party has only a handful of prominent ethnic-minority politicians, such as Nikki Haley, Donald Trump's ambassador to the UN, Tim Scott, a senator from South Carolina and Marco Rubio, a senator from Florida. Several ethnic-minority Republican politicians have Americanised themselves. Ms Haley has dropped her first name, Nimrata, and converted from Sikhism to Christianity. Britain's BAME Conservatives, by contrast, tend to wear their ethnic heritage on their sleeves. Mr Sunak celebrated Diwali by lighting candles on the steps of Number 11 Downing Street.

In America right-wing politics is increasingly about a white backlash against a rising multicultural majority. In Britain it is still about making your own way in the world on the basis of your abilities. Many of Britain's BAME MPS are "dry"—on the Thatcherite right rather than the "wet" compassionate left of the party—pro-Brexit and enthusiastic scourges of political correctness, but they have not renounced their BAME identities. Indeed, many of them are Tories precisely because of their identities as striving immigrants. Ms Badenoch captured this optimistic spirit in her maiden speech as an MP when she thanked her chosen country for giving her a chance to live the "British dream".

There are obvious limits to the Conservatives' success. Matt Singh of Number Cruncher Politics, a polling company, estimates that the Conservatives won 24% of ethnic-minority votes in the 2019 election compared with Labour's 62%. Tim Bale of Queen Mary, University of London, calculates that the party's members are 97% white (though Labour's members are 96% white, which is even more of a problem for a party that depends on minority votes). The Conservatives' strategy of showcasing ethnic talent by picking out high-flyers and giving them safe (mainly white) seats rather than, like Labour, using ethnic-minority candidates to mobilise ethnic-minority voters has both advantages and disadvantages. The advantage is that it attracts high-flyers who could have had successful careers in any profession. The Tories' talent pool, particularly among ethnic minorities, is notably deeper than Labour's. The disadvantage is that some of the most prominent BAME Conservatives have little in common with ethnic-minority voters, many of whom are still trapped in urban poverty.

The Tories' diversification is nevertheless thoroughly benign. It's obviously good for a party that needs to win votes in an increasingly diverse society. But it's also good for the country. It gives the Conservatives the confidence to engage in debate about questions such as multiculturalism and assimilation. It forces Labour to compete for ethnic-minority votes rather than taking them for granted. Sometimes the most important things in politics are not the events that set Westminster jabbering but the things that don't happen and then get taken for granted. The fact that Britain's Conservative Party has resisted the temptation, even during a period of populist turmoil, to become a party of white reaction is worth both noticing and celebrating.



Risk-taking

Last of the daredevils

CHAMONIX

Before covid-19 hit, life in rich countries was safer than ever. So why do some people risk their lives for fun?

Laurent frat is standing on top of a ridge line in the French alps, preparing to leap down to the valley below. If something goes wrong, he will die. "If I can't find the landing area it will find me," he jokes. He claims not to be nervous, although he admits that he tries not to think about his family before he jumps. After checking that the photographer is ready, he is off, arms outstretched, head forward, leaping into the void.

As the air rushes into his nylon suit, it gives him a bit of lift, allowing him to feel as if he is flying (in reality, he is merely falling with style). He will descend 1,500 metres in around a minute before opening a parachute. While flying, he says, he feels "almost invincible". For a minute or two he feels a sense of freedom that cannot be imagined otherwise: "You think about where you want to go and you go there." For that minute of invincibility, Mr Frat has risked his life over a thousand times.

Mr Frat is a wingsuit BASE jumper. He jumps from cliffs, bridges and the like (BASE stands for building, antenna, span and earth) while wearing a "wingsuit"—a sort of nylon flying-squirrel get-up. The sport is among the most dangerous recreational activities known to man. Although no reliable figures are kept, more than 300 BASE jumpers have died in the past two decades. As the sport has grown, so has the number of deaths. In the town of Chamonix, though not the area around it, wingsuiting was banned in 2016 after five people died in the space of a few months. They included a Russian who failed to open his parachute and crashed into a building.

Yet the sport is surprisingly popular. Hike in the mountains around Chamonix on a clear, windless day and you are almost as likely to encounter somebody walking to an "exit point" with a parachute as you are to find rock climbers or picnickers. Open canopies are a common sight along certain

roads. On a good day, a wingsuiter might make three or four jumps. It is another way to pass the hours; another thing to buy gear for; another way to bond with pals. It just entails a higher chance of becoming what some wingsuiters call a "meat missile".

This past year, thanks to covid-19, humans have faced a radical increase in risk. Governments and individuals have decided to make huge personal and financial sacrifices to protect people from an increased chance of death. Once-unremarkable activities, such as eating at a restaurant or visiting your grandchildren, are suddenly fraught with the fear of death. The response to the pandemic has shown the extent to which humans are riskaverse—it has proved quite how far they are willing to go to avoid a chance of dying prematurely. So why would anyone jump off a cliff, and willingly expose themselves to it?

Risk-taking used to be easier to explain. Annie Edson Taylor was a 63-year-old schoolteacher when she decided to go over Niagara Falls in a barrel in 1901. She hoped to sell a book about the exploit. Evel Knievel jumped motorbikes over ramps, and eventually over a canyon in Idaho, to sell tickets to his shows. But these days there is less money in daredevilry. Red Bull, an energy-drinks company, sponsors many daredevils, but chafes at the suggestion it encourages anything dangerous. In any

▶ case its sponsorship is not that generous. Felix Baumgartner, who parachuted from a balloon at an altitude of 39km wearing a Red Bull helmet in 2012, made very little money from it.

Social networks such as Instagram and TikTok have made it possible for anyone to broadcast his or her dangerous exploits. On YouTube it is easy to find footage of wingsuit BASE jumpers "proximity flying" close to rocks (an especially dangerous niche of the sport) and climbers without ropes on sheer faces. Some clips show people taking even more ludicrous risks. Young Russian men dangle from antennae, thousands of feet up, without so much as a rope.

A fickle food

But any notoriety thus acquired is fleeting. Mr Baumgartner made international headlines; TikTok and YouTube daredevils do not, except when they die. In any case, many people happily do their stunts out of the view of cameras. Mr Frat, whose wife also BASE jumps, admits that he likes the reaction he gets talking about his hobby at parties. But he is not interested in becoming a superstar daredevil, and shies away from the extremely dangerous jumps that he would need to do to achieve that. He usually jumps without a helmet camera.

What he does is nonetheless very risky, as he knows. "Realistically", says Mr Frat, "there is no safe wingsuit BASE jumping. There is no magic formula for staying safe." He has made over 1,000 jumps without serious injury but he points out that nobody has made 10,000 yet. Anything—a slip on the cliff, an equipment failure, a miscalculation of the flight path—might make a jump his last.

Yet it is not the adrenalin rush of evading death that draws him in. "There is a bit of a misconception that we are all adrenalin junkies," he says. In fact, he says he tries to "down-regulate" adrenalin. A pumping heart, a rush of fight-or-flight reaction, is not thrilling but terrifying. For Mr Frat, it is the joy and control of BASE jumping that is worth the risk that he will die.

According to Andreas Wilke, an evolutionary psychologist at Clarkson University in New York, some risk-takers are just foolish. Adolescent males especially, do silly things to show off. One study, in which researchers made young men wear vR goggles and walk across a simulated rickety bridge, found that they tended to cross faster in the presence of female spectators. Mr Wilke suggests that physical risk-taking sends a signal to a potential mate that the risk-taker is fit. (Lest this encourage more men to hurl themselves off cliffs, the research also shows that the value of this can be overstated: men overestimate the extent to which females value their engaging in non-heroic risk-taking, such as bungee jumping or risky sports, says a 2005 study

by G. William Farthing, then of the University of Maine.)

BASE jumping does not conform to the pattern of youthful exuberance. The bulk of wingsuiters, as well as free solo climbers, extreme skiers and the like, are indeed men. But they tend to be in their 30s and 40s, possibly because learning to BASE jump is expensive. Many, such as Mr Frat, come across more like monks than hotheads. Before leaping from cliffs they train a good deal, by leaping from aeroplanes. Mr Frat studies maps and carries a laser rangefinder to scope out new cliffs. He studies the deaths of other wingsuiters, trying to understand where they went wrong. He carries a checklist: if a jump has too many sketchy parts, he will walk down the mountain again, even if his friends jump. He says if he dies, he would prefer it to be in a way that other wingsuiters who read the reports would not think that he had made a careless error.

People's appetite for risk appears to be domain specific. People who enjoy jumping off cliffs will not necessarily be keen to put their money into risky investments, or take risks in their relationships. Even within seemingly similar domains, appetites to risk vary. Financial investment can look rather like gambling, but Mr Wilke's research shows that professional investors perceive gambling as far riskier than most people do. Put into a Las Vegas casino, hedge-fund managers are more likely to behave like the characters in "The Big Short"—who forsake the card tables to research their investment positions—than they are like those of "The Wolf of Wall Street", who gamble "like degenerates".

According to Mr Wilke, what varies is not so much people's appetite for risk so much as their assessment of it. Wingsuit



They're all frightfully keen

jumpers and climbers recognise the dangers of what they do, but they trust in their abilities to mitigate the risks, and value the rewards highly. "You do the kind of things you're not afraid of," he says. That applies even to wingsuiters. Steph Davis, an American climber and another wingsuit BASE jumper, says that people who take the sorts of risks she takes—climbing a sheer mountain face without ropes, for example—do not see it as scary in the way outsiders do. She reckons her decisions at the top of a mountain are "often very conservative". In her life outside BASE jumping and climbing, she says she is hardly frivolous. She is careful with money, and would not gamble, for instance. But just as gambling seems less risky if you have plenty of money to lose, so base jumping is less risky if you have trained, she says. "It's a question of how much cushion you have."

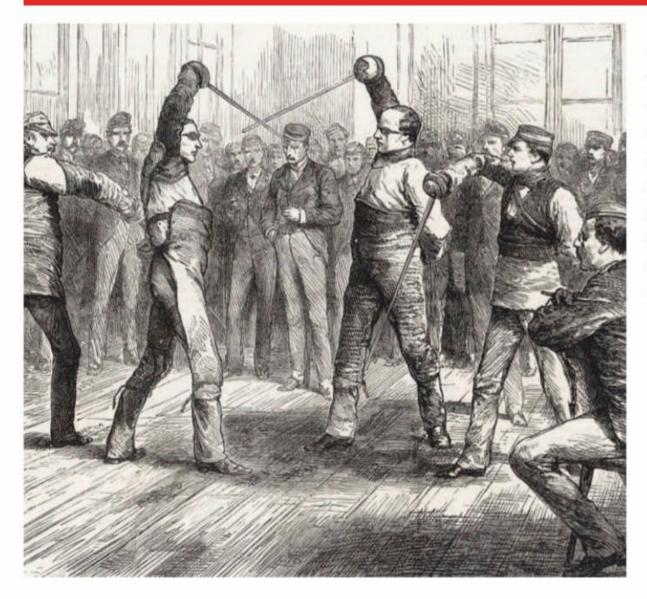
Even Ms Davis changed her behaviour in response to covid-19. She lives in Moab, a small, sporty town in Utah, where the local economy shut down in case there was a surge of infections. As the virus spread through America last spring, she quit BASE jumping. With so many people making economic sacrifices to stop the local hospital from being overwhelmed, "I thought it would be a little bit inappropriate to get hurt," she says.

To know what life is worth

But when summer arrived and the virus seemed to have receded, she went back to the mountains. In the end, wingsuiters like Ms Davis and Mr Frat think that risk is a necessary part of life. "I don't think that we have evolved to live the way we're living right now," suggests Ms Davis. "We have evolved to deal with natural stress. People had to hunt for food, find shelter, defend themselves against threats—taking decisive actions, moving your body," she says. In general we may try to minimise risk. Yet if we took no risks, and never did anything reckless, we would live less happy lives.

Ms Davis's hobby has cost her dearly. In 2013 her husband, Mario Richard, another wingsuiter, was killed in a jump in Italy. She briefly quit BASE jumping then. But eventually she decided she did not want simply to endure life—she wanted to enjoy it. Four months later, on New Year's Eve, she headed to another cliff in Arizona that the pair had previously jumped together on New Year's Eve before. She was scared, but when she pushed off, she felt a sense of release. "There is no way to avoid risk in life," she later said. "The real risk is in making your life small." The coronavirus has shown how interdependent people are. If you catch a deadly virus, you endanger not just yourself but others. But humans crave freedom, not just security. When you jump off a cliff you can believe, if only for a minute or two, that you are on your own.

Business



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Family firms

Mittelstand-off

BERLIN

All families argue. Some of the most explosive rows happen inside Germany's powerhouse companies

TERMAN FIRMS have, like their country Titself, a reputation for being staid. Look closer, though, and many brim with intrigue. Albert Darboven, a coffee tycoon, pushed his own son Arthur out of IJ Darboven and tried to adopt a friend as his heir and successor. The five children from the first marriage of Rudolf-August Oetker, grandson of the eponymous founder of a pudding dynasty, and the three offspring from his third have been at each other's throats for years. The feud among the billionaire scions of the Tengelmann retail empire led to speculation that Karl-Erivan Haub, the group's fifth-generation CEO, faked his own death in a skiing accident. This month his brother, Georg Haub, reportedly withdrew the application to have him declared dead.

Apart from ripping families apart and tearing down reputations, such feuds destroy shareholder value—including that accruing to the warring clans. Hermann Simon, a management consultant to many powerhouses in Germany's Mittelstand of

medium-sized firms, says succession is their biggest problem. Families that quarrel risk a split, a sale to a rival or bankruptcy. With early planning and discussions many rows could be avoided. Yet most founders prefer to keep their options open. And few wish to contemplate retirement.

Dynastic dissonance

More than 90% of German firms are family companies. Unusually, that includes many multinationals across a range of industries: appliances (Miele), carmaking (BMW, Continental and Volkswagen), chemicals (Henkel), engineering (Bosch, Heraeus, Knorr-Bremse), food (Oetker), media (Bertelsmann), medicines (Merck) and retail (Aldi and Schwarz, which owns Lidl grocers). Fully 30% of companies with more than 500 employees are in the hands of their founding clans.

The profusion of family companies is partly a function of inheritance tax. This has historically been high in America and France but modest in Germany—and, crucially, waived for heirs who keep their family business running for at least seven years, and protect jobs and wages. Another explanation is culture. Whereas Americans admire self-made men, Germans respect old money. *Neureiche* (newly rich) are dismissed as arriviste vulgarians.

Whatever the reasons, the upshot is ubiquitous strife. For conflict is built into family businesses, says Arist von Schlippe of the Wittener Institute for Family Companies, a think-tank. Each is a paradox, he says, combining the inclusive logic of a family with the selective logic of business. As an example, he recalls advising a founder who wanted each of his four sons to inherit one-quarter of the family concern, while also encouraging all of them to strive for the qualifications to become its next boss. That is a recipe for discord.

Succession is easier when there is only one descendant, or when others show little interest in business. It gets complicated in dynasties with plenty of children from multiple marriages. Ferdinand Piëch, a former boss of Volkswagen Group and grandson of the carmaker's founder, Ferdinand Porsche, had six daughters and seven sons from three marriages and a couple of liaisons. Ever since Piëch died in 2019 his 13 children have been fighting in court with his last wife. An estimated €1.5bn (\$1.8bn) in family wealth is at stake.

The trickiest succession is from the first generation to the second. If a family can >>

▶ pull that off without bad blood, subsequent handovers are likelier to succeed, says Kirsten Baus of the Institute for Family Strategy, a think-tank in Stuttgart. In America 70% of family firms fold or get sold before the second generation gets a look-in. Just 10% remain privately held going concerns into the third generation, according to a study in the *Harvard Business Review*. In Germany 16% of small or medium-sized companies say that they will probably close down when the boss retires (though this does not count firms that go bust). Most would like to stay in the family but are unable to persuade a relative to take over.

Conflict is often not chiefly over money. Relatives spar because they have different aspirations for the business, or feel they are being mistreated. Arthur Darboven was pushed out by his father, and stripped of a part of his stake. Among other things, Mr Darboven reportedly disapproved of his son's launch of a racy new brand called Coffee-Erotic. At the age of 83 Albert Darboven remains at the helm of his firm. (After a court denied his adoption strategy, he is reportedly pondering creating a foundation to control the firm.)

To avert such to-dos, some clans organise an annual family day, holiday camps for their youngsters and even dedicate a house to family reunions, often the home of the founder. Most also draw up codes of conduct, says Herbert Wettig, an adviser of family companies. The 680 members of the Haniel clan (who until recently owned Metro supermarkets) have an 80-page code, which stipulates that no family member can work for the company, not even as an intern. The Reimanns, billionaire owners of JAB, a coffee-to-cosmetics group, have a similar rule. The Trumpfs have a code that covers succession and the sale of shares in the firm, but also includes guidelines for religious tolerance, modesty and respect for others.

No charter is foolproof; the Oetker codex did not stop them clashing. Some families unable to find agreement decide to sell out or, if they are large enough, go public. In 2017 Wirtgen, a construction firm with annual sales of €3bn, was sold to John Deere for \$5.2bn. The founder's sons worried they would be too old to run a company by the time their children could take over. After falling out bitterly with his only son, Heinz Herrmann Thiele listed onethird of Knorr-Bremse, the company he built into a leading purveyor of train and lorry brakes, on the Frankfurt stock exchange in 2018. He and his daughter raked in €3.9bn with the flotation.

Or quarrelsome clans can go their separate ways. Some of corporate Germany's biggest names are the result of break-ups. A fight between the shoemaking Dassler brothers led in 1948 to the creation of Adidas and Puma, each of which now makes

pricey trainers. A feud in 1960 between the Albrecht brothers over whether to sell cigarettes also resulted in a bifurcation: Aldi Nord operates in northern Germany and a number of other, mostly western and central European countries; Aldi Süd covers southern Germany, remaining parts of Europe, plus Australia and China.

A split may make sense for groups with diverse interests, says Klaus-Heiner Röhl of the German Economic Institute, another think-tank. But it weakens specialist firms of the sort that populate the Mittelstand. The latest generation of Aldi Nord heirs has fought over money and power for a decade. The row is preventing a sensible re-merger of the Aldis. Never mind that it would help both businesses.

Sverige AB and China

Stockholm syndrome

BERLIN

Corporate Sweden resists its government's Sino-scepticism

China date back to the 1890s, when the Swedish company sold 2,000 telephones to Shanghai. It has been welcome in the Chinese market ever since, most recently selling speedy 5G telecoms gear. Now, fears Borje Ekholm, Ericsson's boss, those bonds are in jeopardy, as a result of the Swedish government's anti-Chinese turn.

After centuries of cordial relations—from the Swedish East India Company's ships sailing between Gothenburg and Guangzhou in the 18th century to Sweden's early recognition of the People's Republic in 1950 and its blessing in 2010 of the Chinese takeover of Volvo, a much-loved car-

There be dragons OMX Stockholm 30 index, selected members Revenues from China, 2019, % \$bn 10 15 20 5 AstraZeneca 5.1 2.1 Atlas Copco Autoliv 1.5 4.2 **ABB** 0.7 Alfa Laval 3.0 Ericsson 1.7 Essity 0.7 Sandvik SCA 0.1 0.5 **ASSA ABLOY** 1.3 H&M Sources: Bloomberg: company reports

maker—the mood has changed. Last October the Swedish telecoms regulator barred Huawei, Ericsson's Chinese rival, from the country's speedy 5G mobile networks, citing "theft of technology" by China. This month, after an auction of Sweden's 5G radio spectrum that forbade the winners from using kit from Huawei and ZTE, another Chinese supplier, China's commerce ministry hinted that the ban could compromise bilateral economic ties.

That would be bad news for Ericsson, which derives 13% of its revenues from China. It is the only foreign company that provides China with certain types of 5G kit—which China is well ahead of most other countries in installing, thanks to gargantuan sums channelled into telecoms infrastructure. But Mr Ekholm's fellow bosses are equally worried, if not quite as outspoken. Plenty of Swedish blue chips have a large exposure to the Asian giant, from ABB and Atlas Copco, two engineering groups, to Essity, a maker of nappies, and AstraZeneca, a Swedish-British pharmaceutical giant (see chart).

Joakim Abeleen, the Beijing representative of Business Sweden, a lobby group, observes that diplomatic ties soured after 2015. That year Chinese agents arrested Gui Minhai, a Swedish national who sold books in Hong Kong that were critical of the Communist Party. This, along with Chinese buyers' aggressive pursuit of Swedish assets, including a port, infuriated Sweden's government, which has since become one of Europe's staunchest critics of China.

Even so, Mr Abeleen says, relations between the two countries' corporate worlds remained cordial. Swedish exports to China (mainly medicines, vehicles and machinery) rose by 15% in the first ten months of 2020, year on year. It is Sweden's fifth-biggest source of imports and sixth-largest export market. Around 600 subsidiaries of Swedish companies operate there; the 30 biggest reported an 18% increase in their Chinese sales in 2019, compared with a year earlier. A year ago a survey of Swedish businesses in China found that 34% planned to increase their investments in the country.

The 5G ruckus risks undermining this mutually beneficial state of affairs. China appears ready to use Sweden as a cautionary tale for other EU countries, showing what happens if they bar Huawei from their 5G networks, says a prominent Swedish industrialist. That would be tricky for Ericsson—which, as Mr Ekholm points out, needs China for global scale.

It could also harm Sverige AB more broadly; a well-functioning trade system is "pivotal" for a small, open country like Sweden, the industrialist warns. No wonder many bosses are quietly hoping that the country's highest administrative court will reverse the telecoms regulator's decision, which Huawei has appealed against.



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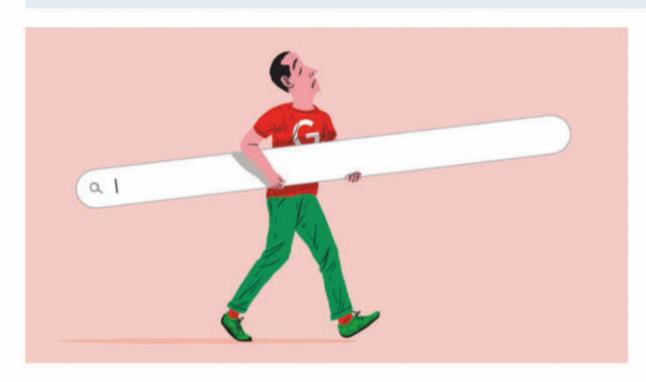


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Online media

Big tech down under

Could Google quit Australia?

T WAS QUITE the dust-up. On January 22nd Mel Silva, Google's managing director in Australia, claimed before the country's Senate that a set of laws it was pondering were so damaging that, if they came into force, the firm would have "no real choice" but to withdraw its search engine from the country. Lawmakers condemned Ms Silva's remarks as "blackmail". Scott Morrison, the prime minister, headed for the nearest flagpole: "Australia makes our rules for things you can do in Australia," he said. "We don't respond to threats."

At issue are new rules that would force big tech to pay publishers to display their news alongside search results and social-media posts. The argument has been simmering for years. News publishers, in Australia and elsewhere, have struggled in the past two decades as advertising money has flowed out of their pages and onto the internet—most of it to just two firms. Between them Google and Facebook account for perhaps 60% of worldwide digital-advertising revenues.

Publishers argue that news stories are widely shared on Facebook, and are at least one reason why people use Google's search engine. That, they say, entitles them to a share of the two firms' spoils. The tech giants retort that, although they do not pay publishers directly, they do send readers to their websites, and that is plenty.

Both sides invoke grand principles. Australia's government argues that Google and Facebook are monopolies, and that laws are therefore the last resort for limiting their power. It argues that news, which

costs money to produce, is vital for a healthy democracy. The tech firms say that paying publishers simply for linking to their stories would break a "fundamental principle" of the web—that anyone is free to link to anything they like. And they claim Australia's proposed law is so broad as to make compliance unfeasibly fiddly; hence the talk of withdrawing entirely.

With a population of 26m, Australia accounted for \$4bn of Google's \$162bn in revenue in 2019. Five years earlier, when

Spain, a similarly middling market, passed a law requiring Google to pay for "snippets" of articles that appear in its News search, the online giant decided to yank that service from the country rather than comply.

Despite such ultimatums, big tech has been making concessions of late. In October Google used a folksy blog post from Sundar Pichai, its boss, to launch "News Showcase", a \$1bn scheme to pay some news publishers for their work. Facebook's News Tab, launched in America in June and in Britain on January 26th, offers a similar revenue-sharing approach (The Economist is a participant). And a few days before Ms Silva addressed Australia's Senate Google announced a deal with French publishers, after years of browbeating by French regulators. The specifics are private, though it probably involves payments for snippets rather than links.

It may be too late for a backroom arrangement à la française with Australian newsmen; the current row with Canberra is too public. An Australian law looks imminent. Google and Facebook say they are open to it in principle—just not to the Senate proposal's sweeping specifics.

Whatever precedent the Aussies set is likely to be seized upon by other places and media groups. That may include America, where neither Joe Biden's Democratic administration nor his Republican opponents are fans of big tech, and the EU, which passed a revenue-sharing directive in 2019 that member states must translate into national law. Google's threat to flee Australia is just about credible (though \$4bn in annual revenue is nothing to sniff at, even if it came at a cost of bigger cheques to the press). Departing America's and Europe's huge markets is not an option.



Big tech's banner year

Christmas means rich pickings for Apple. The pandemic year was no different. The iPhone-maker's quarterly revenue exceeded \$100bn for the first time, two-and-a-half times Microsoft's own record sales and four times Facebook's. Among the tech giants only Amazon boasts bigger annual revenues—though much thinner margins.

Middle Eastern commerce

Abrahamic profits

DUBAI AND JERUSALEM

Emirati and Israeli bosses cannot wait to do business

ISRAEL AND the United Arab Emirates (UAE) have maintained unofficial relations for a while, despite a half-century boycott in much of the Arab world of the Jewish state in its midst. So, too, with commercial ties. Goods moved between the two economies, but only by passing through intermediaries in third countries first. This made sense for high-margin products like technology, an Israeli forte, or diamonds, where the rigmarole could tack on a week's delay and a surcharge of 1% for extra bank fees and insurance. Trade was pointless for most other businesses.

No longer. On January 24th Israel opened an embassy in Abu Dhabi, the UAE's capital, as part of the Abraham accords, a diplomatic deal brokered by America and signed in September. The outpost has symbolic value. It is also a beachhead for Israeli and Emirati bosses and investors keen on doing business. And there is plenty of business to be done "now that the relations between the two countries have come out into the open", says David Meidan, a former senior spy at Mossad, Israel's intelligence agency, who advises Israeli companies operating in the Arab world. Boosters talk of up to \$6.5bn in annual bilateral trade equivalent to 5% of Israel's current total and 1% of the UAE's—within a few years, and billions in investments.

In the past six months Frost & Sullivan, a consultancy, has been pitching deals with its Israeli clients to Emirati firms in industries from carmaking to food. Until November, half rejected the advances out of hand. Now only a third do, says Subhash Joshi, head of Frost & Sullivan's Middle Eastern practice in Dubai. He expects the share to keep falling. On February 7th-8th Abu Dhabi will host a high-profile UAE-Israel investment summit.

A commercial love-in is in the air. Two port operators, Israel Shipyards and Dubai's DP World, are planning a joint bid for Israel's newly privatised Haifa Port. The Barakat Group, the UAE's largest fresh-produce importer, is offering Israeli fare to the Emirati hotels and markets it supplies. Its managing director, Kenneth D'Costa, praises Israeli avocados, which he expects to take market share from pricier European fruit and poorer-quality Kenyan ones.

That is just the start. Spending by Emirati farmers on Israeli agricultural kit, seeds and know-how (responsible for those avocados) is expected to balloon, as

the UAE tries to decrease its reliance on foreign food, which makes up 80% of Emirati diets. Israel, for its part, will gain access to Emirati oil and gas, petrochemicals, building materials and other bulky goods, where thin margins made circuitous channels unprofitable. A recent study by the chambers of commerce of Dubai and Israel identified "potential" for Emirati exports of cement, ceramics and metals, which Israel now gets from farther afield at higher cost.

Direct travel between the two countries will also boost business. Before the latest covid-19 lockdown as many as 25 flights a week ferried travellers between Tel Aviv and Dubai. There were none before the accords. In December alone more than 40,000 Israelis flew to Dubai. Israeli-passport holders are at last able to get on the ground in the UAE to drum up investment for Israel's tech-startup scene, says Sharon Daniel, a venture capitalist in Tel Aviv.

The Emiratis understand the Arab region "much better than we do", says Erel Margalit of Jerusalem Venture Partners, a big venture-capital firm. They are also a gateway to the Far East, he adds. Asaf Azulay, marketing chief of Bank Hapoalim, a big Israeli lender, likewise spies "a double opportunity": to gain access to the Arab world and Africa, and to invest jointly. His company has already signed co-operation agreements with two Emirati banks.

Dan Catarivas of the Manufacturers' Association of Israel expects unfettered business travel to boost trade in sensitive areas like security software and advanced equipment for health care, defence and energy production. It makes sense for the two most technologically advanced countries in the Middle East to "work together as hubs and research centres", says Yoaz Hendel, who until recently served as Israel's communication minister.



Ripe for a thaw

It isn't all plain sailing. Emiratis, taught to view Israel as evil, need time "to absorb this new reality", says the boss of a big Emirati food importer. He has decided to steer clear of Israeli suppliers for now. After decades of animosity, some friction is inevitable. But signs of warming relations abound—literally in the case of Hebrew script popping up on Dubai streets. Jews walk about in religious garb. It is "almost like everything Judaism became trendy", says an Emirati official. And for Israelis willing to move domicile, adds Mr Meidan, there is the added bonus of doing business in a country with no income tax.

Starbucks

Espresso lane

WASHINGTON, DC

The caffeine-peddler bets on China, cyberspace and suburbia

Howard schultz, former boss of Starbucks, used to imagine its coffee shops as a "third place": a spot to hang out, as you do at home or in the office. Yet even free Wi-Fi persuaded only one in five Americans to stick around; the rest ordered to go. Then covid-19 collapsed the distinction between hearth and work. Being a two-and-ahalfth sort of place was not all bad in a plague. On January 26th Kevin Johnson, Mr Schultz's successor, reported Starbucks's best quarter of the pandemic so far. But global same-store sales, a benchmark metric, still fell by 5%.

Recovery is furthest along in China, the firm's largest international market, which got the pandemic under control faster than the West. Same-store sales in China grew by 5% last quarter, year on year (possibly helped by the downfall of Luckin Coffee, a local rival embroiled in a fraud). Including the nearly 600 new outlets, too, total China revenues rose by 22%, to \$911m.

The pace of new openings slowed from the previous quarter, when a new Chinese outlet opened every eight hours or so, but it remained faster than before the pandemic. In November Starbucks broke ground on a Coffee Innovation Park in the province of Jiangsu, which will roast and distribute beans to the 6,000 coffee shops the company plans to run in China by 2022.

Chinese coffee-drinkers have been lapping up its app-based loyalty programme, which now has 15m members in China, up from 10m at the start of 2020. That bodes well for future sales in a traditionally undercaffeinated market where the beverage is winning over ever more converts.

The app propped up sales in America, too. Those fell by just 5% year on year, de-

The Economist January 30th 2021

> spite two in five coffee shops facing renewed limits on in-person caffeination. Although the Starbucks app was overtaken by Apple Pay in 2019, it remains one of America's most popular mobile-payments systems. Gamified challenges and promotions (as well as contactlessness, on which covid-19 placed a premium) tempted American coffee-drinkers out of their houses and increased the amount they bought on each visit, which rose by 19% between October and December, year on year. Drivethrough lanes at suburban outlets, which are mushrooming as those in city centres once did, also helped. By 2023 Starbucks wants 45% of its American outlets to allow drive-through or curb-side pick-up.

But covid-19 continues to cloud prospects for businesses that involve human contact—as latte-peddling does. By the time the pandemic is over up to 400 Starbucks in American city centres may be shut for good, the firm says. Until recently investors did not seem to mind, perhaps concluding that not every street corner needs one. The company's market capitalisation climbed steadily since the market crash in March to an all-time high of \$126bn in late December. The disappointing results shaved 6.5% off Starbucks's share price. Normally stock-traders are highly strung after too much coffee. Too little can evidently have the same effect.

Oil-services firms

Will baby drill?

NEW YORK

Halliburton and its rivals search for the bright side

In 2020, as demand for crude went up in smoke amid covid-19 lockdowns, so did energy firms' budgets. That left oilmen with less money to spend on assessing reservoirs, drilling new wells and maintaining existing ones, which they typically outsource to specialist oil-services firms. Between January and June the number of active rigs worldwide fell by half, to just over 1,000. On January 19th Jeff Miller, boss of Halliburton, a service-industry giant, called last year "the worst in our history". His firms' revenues fell by 36%, to \$14.4bn, leading to an operating loss of \$2.4bn.

Still, Mr Miller insisted, the future looks brighter. He predicted "a multi-year upcycle" beginning in 2022. On January 22nd Olivier Le Peuch, chief executive of Schlumberger, a big rival, echoed this sentiment, declaring "a new growth cycle". A day earlier executives at Baker Hughes, the third big provider, sounded a similarly chirpy note. Is this optimism misplaced?

Recent history gives grounds for scepticism. Although Halliburton's share price has almost recovered to its pre-pandemic levels, it is less than a third what it was in 2017. Schlumberger and Baker Hughes have performed only a bit better. The trio have torched \$128bn in shareholder value in the past four years, as low fossil-fuel prices have squeezed oil firms' budgets.

At the same time newcomers piled in, particularly across America's shale fields. The industry's global ranks swelled, from about 100 companies in 2014 to nearly 1,000 last year, reckons Muqsit Ashraf of Accenture, a consultancy. Competition meant that most of the rewards from improved efficiency went to customers, in the form of lower prices. Returns collapsed. The sector's gross operating profits fell by half from 2014 to 2019, according to Bernstein, a research firm. Then came covid-19.

The long-term risks beyond the pandemic look as daunting. Oil majors' spending on new rigs may not keep pace with any rise in the oil price. Investors are keener on cashflow than on costly new gushers. Governments are getting serious about climate change. On January 27th President Joe Biden announced an indefinite pause to new drilling permits on America's federal lands. Against this backdrop, the prospects for service firms can resemble those of horse farriers at the dawn of the car age.

Even a shrinking market offers an opportunity, however. The giants have spent the past year slashing costs. Schlumberger laid off 21,000 workers, a fifth of its total, cut its dividend by 75% and said that senior managers would voluntarily forgo 20% of their pay. It has enough cash (as have its two rivals) to invest in better services for traditional customers. Mr Miller boasted that his firm sealed a wellbore in the North Sea with cement in a process that was, for the first time, fully automated.

The big firms are also expanding into new, cleaner ventures. In November Baker Hughes said it would acquire a carbon-capture company. Schlumberger has set up a "new energy" business unit and on January 11th its joint venture in France to manufacture equipment for clean-hydrogen production received the EU's blessing.

Most important, the three giants benefit from attrition. North American service firms entered the pandemic with \$32bn to repay by 2024, according to Moody's, a ratings agency. Speculative-grade companies accounted for nearly two-thirds of that. Few are attractive takeover targets; unlike an oil firm, which obtains drillable land when it buys another, an acquisitive service company gets rigs and other kit it already has in abundance. Sreedhar Kona of Moody's sees "way too much equipment chasing way too little cashflow". The big three hope that what cash is left will increasingly flow to them.

Job titles

Hail to the "chiefs"

An epidemic of new corporate roles

When Meeting big new challenges, chief executive officers often resort to a convenient tool: creating fresh executive roles. This helps channel resources to pressing problems and attract talent. It signals to staff and the wider world that bosses understand what really matters (and care about it).

Sometimes, it ends up looking farcical—remember the proliferation of "chief listening officers" a decade ago, as companies sought to react to social-media chatter? But certain newfangled c-suite roles do catch on; no self-respecting corporation can do without a chief sustainability officer these days. A few corporate positions that have gained prominence during a particularly tumultuous 2020 are almost certainly here to stay.

The most obvious example is "chief medical officer". Long common in industries where safety is an abiding concern (mining, say), health supremos are now being recruited more widely, says Tony Lee of the Society for Human Resource Management, a trade association. The pandemic is far from over, red tape around sick leave is becoming more tangled as a result of it, and mental-health problems among employees are likely to outlive the plague.

Another emerging role is that of "chief remote officer", responsible for designing policies and disseminating best practices for home-working. Succeeding could >>>



55

therefore mean making oneself redundant. Mr Lee thinks this role will eventually disappear, especially at smaller companies (though it may hang around at bigger ones with more complicated and dispersed workforces). As Bhushan Sethi of pwc. a consultancy, points out, something similar happened to chief digital officers, whom firms have recruited with gusto over the past decades. Digital honchos' ranks are beginning to thin now that digital technology has become part of most companies' bread and butter.

Indeed, recruitment trends show that it

is bread and butter that continues to preoccupy bosses. Hiring of "chief revenue officers" and "chief growth officers", charged with co-ordinating firms' sales-generating activities, has accelerated as pandemic lockdowns simultaneously restrict economies' supply and demand sides, according to a survey by LinkedIn, a professional social network (see chart on previous page). Their share of c-suite hires is now, respectively, twice and nearly three times what it was in 2017.

However, last year's hottest executive recruits had nothing to do with covid-19. As protests against racial injustice rocked America last summer, companies rushed to enlist chief diversity officers, who ensure their workforce is representative of society at large.

One risk to diversity chiefs' future job security is that most of them have not been invited to sit at the corporate top table. Most lack a direct line to the CEO. At worst, the post becomes "a ceremonial role", with no authority, resources or structure, warns Michael Hyter of Korn Ferry, a consultancy. At best, like other modish corporate roles, it may eventually become redundant.

Bartleby You'll often walk alone

Loneliness is a widespread problem with complex roots

THERE HAS been a quiet pandemic **I** developing while most people's attention has been on covid-19. The lockdown has exacerbated a problem that has been spreading in many developed nations for decades: loneliness.

It is a complex issue which covers not only social lives, but the way you work and the way you vote. Noreena Hertz, an academic, tackles the subject in an important new book, "The Lonely Century".

Loneliness increases the risk of heart disease, strokes and dementia. Those who say they are lonely are likelier to be depressed five years later. In addition, lonely people can become more hostile towards others and more attracted to extremist politics.

Part of the problem stems from contemporary employment. Globally, two in five office workers feel lonely at work. This rises to three in five in Britain. Gig-economy jobs can leave people with insecure incomes and without the companionship of colleagues. The pandemic has made it more difficult to make, and maintain, friendships, particularly for new employees.

Even before the crisis, the hope that open-plan offices would encourage greater camaraderie proved to be false. Many people find the chatter distracting and retreat with noise-cancelling headphones; they then email colleagues who are sitting only a few desks away.

Co-working spaces, where young professionals can take advantage of communal facilities, have not been the answer either. Workers are not there long enough to invest in relationships. As Ms Hertz puts it: "Hot deskers are the workplace equivalent of the renters who've never met their neighbours."

It may seem odd that loneliness can grow when people are surrounded by so many others. But this paradox was best expressed by the band Roxy Music, when they sang "Loneliness is a crowded room". Most people will be perfectly content, for a while at least, eating on their own at home, perhaps with a good book or the telly. Sitting all alone in a restaurant or a bar, surrounded by other people chatting, is a much more isolating affair.

By the same token, big cities can be very isolating. In a survey from 2016, 55% of Londoners and 52% of New Yorkers said they sometimes felt lonely. In many cities, around half of all residents live on their own, and the average tenancy of a London renter lasts 20 months. City-dwellers are less likely to be polite, because they are unlikely to meet a passer-by again.

Perhaps this relates to human history. Mass urbanisation is a relatively recent development: if the history of human existence was squeezed into a single day, the Industrial Revolution did not occur until almost midnight. For much of that time, humans lived in small groups of hunter-gatherers; cities may just overwhelm the senses.





Ms Hertz points her finger at two more recent developments. The first is social media. The internet has led to much cyber-bullying (although it has also been a source of companionship during the lockdown). And people glued to their smartphones spend less time interacting socially. But Robert Putnam noticed a tendency towards solitary activity in his book "Bowling Alone", published in 2000, well before the creation of Facebook, Twitter and other distractions.

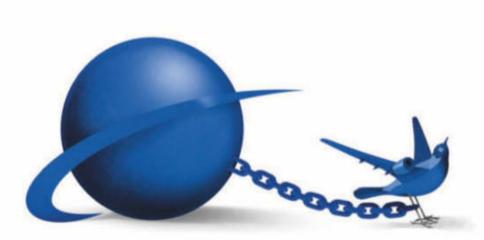
The second culprit cited by Ms Hertz is "neoliberalism", which she defines as a "minimum state, maximum markets" approach. But it is hard to believe that state retreat is as decisive a factor in the loneliness pandemic as she suggests; after all, in 1990 the government of the average advanced economy spent 42% of GDP, and the proportion is the same today, according to the IMF.

Some changes in behaviour are down to individual choice. Before the pandemic no one was stopping people going to church or taking part in sports. They simply preferred to do other things. Indeed, one reason for the decline in communal activities is that men choose to be with their families rather than head to the bar; American fathers spend three times as much time with their children as they did in the 1960s. That is surely a welcome development.

So recreating a communal society may be difficult. When the pandemic ends, people may relish the chance to be with their neighbours and colleagues for a while. But the trend is clear. Technology means that people can get their entertainment at home, and work there, too. It is convenient but it also leads to loneliness. Society will be grappling with this trade-off for decades to come.

Schumpeter | The state bird of Washington, DC

Can Boeing fly without government help?



AVE CALHOUN is no stranger to crises. A former acolyte of Jack Welch, he was picked to run GE's aircraft-engines and avionics division months before the 9/11 terrorist attacks of 2001 clobbered the industry. In the past year or so, as boss of Boeing, he has faced an even stiffer challenge. The company is only slowly emerging from a 21-month grounding of its bestselling 737 MAX passenger jet in the wake of two fatal crashes. Mr Calhoun must mend a cracked corporate culture that contributed to those disasters. If that were not enough, covid-19 has put air travel into a tailspin—and with it airlines' plane purchases. On January 27th Boeing announced a fifth straight quarterly loss. A record annual net profit of \$10.5bn in 2018 turned into a record \$11.9bn net loss in 2020. The aerospace giant delivered 157 passenger and cargo aircraft last year, 80% less than in 2018 and a third as many as Airbus, the European half of the planemaking duopoly. One analyst heaped mock-praise on Boeing for beating its previous tally—from 1973.

Mr Calhoun now thinks recovery is on the radar. There are certainly blips of good news. A global roll-out of covid-19 vaccines brings hope for stranded airlines. The MAX is back in the air in America and will be soon in Europe. Deliveries of the plane are resuming. And Boeing got away with a slap on the wrist from regulators over lax safety practices. But the firm, which has destroyed \$140bn in shareholder value over the past two years, is not in the clear. Without America's doting government, it may never be.

Boeing began to lose its way long before the MAX disasters. After a merger with McDonnell Douglas in 1997, engineering excellence lost ground to meeting Wall Street targets. Cosy relations with America's Federal Aviation Administration (FAA) allowed the firm to self-certify many of its processes; one Boeing employee boasted of "Jedi mind-tricking regulators". When the MAX disaster struck, the firm botched its response. The strategy under Dennis Muilenburg, Mr Calhoun's predecessor, was to talk things up, keep suppliers humming along and pump out more MAXES, never mind that customers were cancelling orders. In late 2019, as unwanted planes began to pile up in Boeing's corporate car parks, Mr Muilenburg was tossed from the cockpit and Mr Calhoun, ten years a board member, was handed the controls.

A combination of misfortune and lousy leadership would have

bankrupted many a firm. But Boeing is no ordinary company. Before the pandemic about one in 130 American workers was employed either by Boeing, with a domestic payroll of 143,000, or by one of its 12,000 local suppliers, with another 1m workers. Despite lay-offs across the aerospace industry in the past year, it remains a source of well-paid jobs—and, thanks to its weapons and spacerocket business, a strategic darling of politicians.

Official desire to keep it aloft was obvious to anyone studying its recent \$2.5bn settlement with the Department of Justice (DoJ) over the MAX mess. The actual fine was just \$244m; most of the remainder was compensation previously allotted to airlines whose MAX jets had been grounded. The company was criminally charged but prosecution was deferred, sparing it the worst consequences. And as one arm of the government sought to punish Boeing, another offered it a backdoor bail-out. The Federal Reserve's flooding of capital markets with liquidity in response to the pandemic was designed largely with firms like it in mind. As a result, Boeing was able to borrow \$25bn from private investors, avoiding the strings attached to a direct rescue.

Even so, it remains financially fragile. Its gross debt has more than doubled to \$63bn over the past year. It is burning cash faster than early jumbo jets drank kerosene. Its free cashflow (after factoring in the cost of operations and maintaining capital assets) was minus \$20bn in 2020. Operational fragility, meanwhile, extends beyond the MAX. Last quarter Boeing shipped just four 787 Dreamliners, after wrinkles were discovered on the plane's fuselage. Compensation claims for delayed deliveries may result in a charge of up to \$3bn. Boeing is taking a \$6.5bn charge against another wide-body model, the 777x, delivery of which has been pushed back three years owing to uncertain demand for air travel.

With civil aviation stalling, the defence-and-space division has become Boeing's main engine. It sold \$26bn-worth of gear in 2020, against \$16bn for passenger and cargo jets. National defence budgets are rising; America's is up by over \$90bn since 2016. But even here Boeing is sputtering. A software error sent its Starliner space capsule off its target, the space station, on its first launch in 2019. This month NASA had to shut down a new Boeing rocket engine a minute into an eight-minute test after a technical glitch.

Cashless in Seattle

All these problems need fixing at a time of unprecedented strain on the balance-sheet. They are forcing Mr Calhoun to delay investing for the future. Boeing's net research-and-development spending was almost a quarter lower in 2020 than in the previous year. To conserve cash, it is closing a big research centre in Seattle, where innovations such as the 787's lightweight carbon-composite fuselage were dreamed up. Boeing's capital expenditure slumped from \$1.7bn in 2019 to \$1.3bn in 2020. Despite pandemic related cuts, that of Airbus is closer to \$2bn, leaving it with more resources to develop climate-friendlier aircraft.

To have a fighting chance against Airbus, which bagged 1,200 more orders than Boeing in 2015-19, Mr Calhoun must restore cashflow. That will require regaining the trust of customers, many of which are foreign airlines that will look askance at any sign that Boeing lacks credibility—or at its continuing regulatory capture of the FAA or DOJ. It needs to persuade them to love the MAX again, a task made harder by fresh allegations that the model's problems may extend beyond its flight-control software. If all else fails, Boeing can always count on its friends in government to offer a parachute. Whether Mr Calhoun gets one is another matter.

Finance & economics



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China's property market

The great escape

JIANGMEN

Long seen as a bubble, China's housing market now looks stable. Can that hold?

OTTERY WINNERS normally win money. ∡In China the big prize is being allowed to spend it. Demand for new homes in good locations is so high, and supply so limited, that several cities use lotteries to allocate them, some with odds as low as one in 60. When his number was chosen, John Chen, an engineer in Shanghai, had two minutes to decide whether to drop 9.6m yuan (\$1.5m) on a house. "It emptied my bank account. But I did not hesitate," he says. Yang Yang, a 38-year-old businessman in Hangzhou, lost out in three draws before finally winning one last spring. "It was even more nerve-racking than my university entrance exams," he jokes.

Even being able to enter the housing lotteries is a matter of good luck, because entrants must be registered as residents of the booming cities, which places them on the right side of China's wealth gap. By contrast, large swathes of the country have the opposite problem: overbuilt apartment blocks, sputtering economies and few people buying property. Hegang, a town near

the border with Russia, briefly found itself in the spotlight after homes there were advertised for just 20,000 yuan, less than the cost of a square metre in Shanghai. It was an extreme example of the glut of empty homes in many small towns.

Similar splits are common around the world, with prices high in large cities and low in small towns. But the degree of the divergence in China, multiplied by the sheer size and growth of its market, means that understanding property is essential if you want to get to grips with what is happening in the economy. Every year China starts building about 15m new homes, more than quintuple the amount in America and Europe combined. The property sector—both the direct impact of construction and its indirect effect on everything from concrete to curtains—makes up a quarter of China's GDP. The financial implications are profound, too. In 2021 Chinese developers are on the hook for more than \$100bn in bond repayments, according to Moody's, a rating agency. For the world as a whole, roughly a tenth of outstanding bank loans to non-financial clients have gone to China's property sector, whether as financing for developers or mortgages for homebuyers.

One commonly heard view is that all this adds up to a ticking time-bomb. And some of the facts are alarming. Fully one-fifth of Chinese homes are vacant, finds a widely cited survey. Housing investment equates to about a tenth of GDP annually, higher than the prodigious levels reached in Japan before its bubble popped three decades ago. Debt has soared for buyers and builders alike. Evergrande, China's biggest developer, has borrowed a cool \$120bn, a 56-fold increase in the past decade alone.

Yet it is only fair to note that such concerns are nothing new. As far back as 2009 Jim Chanos, a hedge-fund manager, said China was "Dubai on steroids", predicting that its property sector would implode spectacularly. Since then prices have doubled, and enough homes have been built for 250m people. The longevity of the boom suggests that the market is more complex than its depictions as a bubble suggest.

The main explanation for its success—or, put differently, its failure to collapse—is the skein of regulations aimed at forestalling the prophesies of doom. Some have long been in place, such as the rule that down-payments for mortgages must be at least 30% of the purchase price for a home. With so much equity in their houses, homeowners are strongly incen-

▶ tivised to make their monthly mortgage payments, limiting the risk of a vicious cycle of defaults, forced sales and collapsing prices. In many of the most populous cities demand is also tightly restricted, because a hukou—a local residency permit—is a prerequisite for buying a home.

As the property sector has swollen, the government has pledged to develop what it calls "a long-term mechanism" for stabilising prices and investment. The property market is, in its view, too important to be left to the market alone. In practice this has meant layering on ever more rules. Cities such as Shanghai and Hangzhou started requiring developers to run lotteries for new flats, with priority given to people who do not own homes. Many others have all but barred people from buying second homes. These often make for cat-and-mouse games. Since the second-home ban applies to families, not just individuals, some couples have obtained fake divorces in order to buy another house. On January 21st Shanghai ruled that divorcees must wait three years to count as first-time buyers if they had owned a home when married.

The government is also now reining in the most indebted real-estate firms. Late last year the central bank and the housing ministry said they would start assessing developers' leverage on the basis of "three red lines"—one, for example, is that their liabilities should not exceed 70% of their assets. Only 11 of the biggest 100 developers would be given a passing grade on all three measures, according to Plenum, a consultancy. The others need to find a way to get inside the lines; if not, they will face strict caps on future financing.

The resulting dynamic offers a case study in how regulation changes the shape of the market. Some developers are working to pare their leverage by attracting new investors or by spinning off subsidiaries, such as their property-management arms. For many, though, the obvious first step is to boost cashflow by selling more houses more quickly, leading them to cut prices.

R&F is one of the big developers feeling





the pinch. At one of its new developments in Jiangmen, a city in the southern province of Guangdong, it has cut prices by 20% in recent months. Sales, once slow, have soared—averaging about 15 homes per day. Even on a weekday afternoon a steady flow of prospective customers walks gingerly around construction debris to check out the flats still being built. One agent, his hair coiffed like a South Korean pop idol, boasts that he alone sold 18m yuan worth of units in December, though that was only enough to rank third among his colleagues.

Beneath the placid surface

Viewed narrowly, the many interventions have worked. In the biggest cities prices have basically been flat in inflation-adjusted terms over the past four years. Annual property sales nationwide have remained at the same level during that time, while new starts have been broadly in line with sales. A scheme to demolish old rickety homes and give their owners cash to buy new ones helped mop up unsold units in small towns. It would take just about ten months to clear all inventory at the current sales rate. "The property sector really is healthier than it used to be. The government has so many levers now," says Zhang Sisi of Jinan University in Guangzhou.

But this calm engenders a different kind of concern. The many rules have not just made for a healthier market; they have made the market. Take the price stability. When developers win land auctions in big cities, they must set prices within a range prescribed by the government. A perverse outcome is that new homes can be a third cheaper than second-hand ones in the same neighbourhoods. Hence yet another rule: to stop people flipping their new homes for a tidy profit, several major cities have slapped a penalty on owners who sell within five years of buying. The lotteries, meanwhile, act as quotas to dictate the size of the market. Prices may be under control, but much demand is simply going unmet.

From this vantage, the becalmed market begins to look less like a success story and

more like a pressure cooker. So in yet another intervention, officials are trying to let steam out of the biggest cities by guiding people to smaller ones—specifically, in the clusters of satellite towns being built up just outside metropolises. These towns are linked to the cities by high-speed trains but have much lower thresholds for newcomers wanting a *hukou*. To make them attractive, the government is also investing more in hospitals and schools. "Sometimes it takes the education ministry, not the housing ministry, to fix problems in the housing market," says Ms Zhang.

Developers seem to be responding to this policy push. The most fertile ground for the city clusters are four prosperous coastal provinces (Guangdong, Fujian, Zhejiang and Jiangsu). Last year these made up 34% of all property investment in China, compared with 26% a decade ago. Developers are "no longer buying up big parcels of land anywhere in the country", says Xiao Wenxiao of CRIC Research, a consultancy. "Now they are focusing on smaller plots in prime areas." The flow of new homes in China, in other words, appears to be better situated than the stock.

A key question, then, is just how much scope there still is for China's housing stock to grow. A 22% vacancy rate—the result of a well-respected survey by the Southwestern University of Finance and Economics in 2017—would suggest that the market is more than saturated. China's demographics also point to weakening demand. The working-age population, the cohort that buys the most homes, is already shrinking. And the pace of rural-to-urban migration, another big source of demand in cities, has started to slow, too.

Nothing about the Chinese housing market is ever so straightforward, though. The 22% vacancy rate largely reflects the overbuilding of small towns. In and around big cities vacancy rates may be less than 10%, low by international standards, according to China International Capital Corp, an investment bank. Much of the housing stock is still shabby. A tenth of flats in cities do not include their own toilet. And many among the growing middle class, having spent a good portion of the past year locked down, are deciding that they want slightly larger homes.

Totting this all up, the baseline forecast of China Index Academy, the country's largest property-research organisation, is that housing sales will fall by 4% or so annually in the coming half-decade, going from roughly 15m units sold in 2020 to 13m in 2025. That would be a challenge for China; long a pillar of growth, the property sector would become a drag. At the same time, it would be a gradual slope down, not a collapse, for the once-vertiginous market. If you listen closely enough, the ticking of the time-bomb sounds a little fainter.

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Belt-tightening

Acting less big

HONG KONG

Which countries are most at risk of premature austerity?

THE BUDGET deficits of the world's governments will add up to about 8.5% of global GDP this year, according to new projections by the IMF. That amounts to well over \$7trn of additional red ink. Remarkably, it may not be enough.

Many economists of a Keynesian bent are haunted by the aftermath of the global financial crisis, when recovery was enfeebled by a premature turn to fiscal caution. Back then, economists fretted about spikes in interest rates and the corrosive effect of overborrowing. Now they view low rates as a fact of life and worry about the scarring effect of underspending. "With interest rates at historic lows, the smartest thing we can do is act big," said Janet Yellen, America's new treasury secretary.

The arithmetic of deficits and growth is daunting. Suppose a country ran a deficit of \$1trn in 2020 and repeated the trick this

Buckling up Budget deficit, % of GDP ■ 2020 ■ 2021 forecast -20 -15 -10 Saudi Arabia Euro area Brazil Canada Japan India Britain China US (IMF) US (Goldman Sachs)* % of GDP Fiscal tightening[†] ■ GDP shortfall[‡] US (Goldman Sachs)* China India Euro area Britain Japan US (IMF) Saudi Arabia Brazil Canada *Includes \$1.1trn of additional stimulus [†]Projected budget balance in 2020 minus balance in 2021 [‡]Projected GDP in 2021 minus pre-pandemic projection Sources: IMF: Goldman Sachs

year. How much would this yawning fiscal gap add to economic growth in 2021? The answer is zero, all else equal. To contribute to growth, the deficit cannot just be big. It must be bigger than it was the year before.

Few governments will meet that hurdle. Of the 21 economies featured in the IMF's forecasts, only five will spill more red ink this year than last (measured in their local currencies, at constant prices). The rest will endure some kind of fiscal tightening. The euro area's budget deficit will shrink by 2.5 percentage points; Japan's, by 5.2 points. The tightening will be even greater in Brazil

Fiscal consolidation would be welcome if it reflected the strength of the economic revival. But although many countries will grow quickly this year, their recoveries will not be complete. One measure of this incompleteness is the gap between the level of output the IMF now envisages and what it foresaw before covid-19. Japan's GDP this year will be 3.4% below the fund's pre-pandemic projections for 2021; the shortfall for the euro area is 6.1%. Taken together, the scale of tightening and the shortfall in GDP reveal how exposed a country is to austerity. The chart shows which countries have the most need for fiscal support and the most sharply diminishing amount of it.

Some economies may need to accept a dose of austerity to quell inflation or preserve external stability. Saudi Arabia will have to slash its budget if oil prices remain around \$50; otherwise large fiscal deficits may put pressure on the riyal's peg to the dollar. Other countries are hobbled by high levels of foreign-currency debt. Here, fiscally lax governments might trigger a run on the currency or lean on central banks to loosen monetary policy, thereby depressing the exchange rate. Either outcome can raise the burden of dollar debt to unbearable levels. But most of the countries in the chart have low inflation, floating currencies and modest amounts of foreign debt. In Brazil, for example, core inflation is below 3% and foreign-currency public debt amounts to only 6% of GDP.

The country most exposed to austerity is Canada. Ahead of its budget the prime minister, Justin Trudeau, has urged his finance minister to "use whatever fiscal firepower is needed in the short term", but also to "preserve Canada's fiscal advantage", which presumably includes its coveted AAA credit rating. Its southern neighbour seems less ambivalent. The IMF reckons that America's deficit will shrink by 5.7 percentage points based on current legislation. But if Congress passes another \$1.1trn of stimulus, as assumed by Goldman Sachs, the federal deficit will be about as big this year as last, and GDP will be just shy of its pre-covid path. America has many fiscal advantages. Its new government seems intent on using them.



Buy American

Building block

WASHINGTON, DC

Joe Biden's executive order may not have its intended effect

American taxpayers' dollars should be spent on American goods made by American workers and with American-made parts. So says President Joe Biden, newly installed in the White House. On January 25th he signed an executive order meant to pull more of the \$600bn of annual federal-procurement spending into American hands. The order was protectionist in spirit: more home-made components means fewer foreign ones. But America's international commitments also mean that Mr Biden's measures may not have much effect.

America's efforts to restrict access to procurement go back nearly 100 years. In 1933 Herbert Hoover signed the Buy American Act (BAA), which attempts to generate American jobs by restricting how direct federal purchases are made. It says that agencies must prefer domestic bidders for American-based contracts worth more than \$10,000, as long as at least 50% of their products are home-made, and (for big businesses) they are no more than 6% more expensive than the cheapest foreign alternative. More recently, President Donald Trump signed as many as ten executive orders in his attempt to push out foreign suppliers. As a result from February 22nd, in order to qualify for preferred status, iron and steel products will have to be 95% home-made. Other products will have to be at least 55% home-made. And the pricing advantage will go up to 20%.

Mr Biden could accept these new thresholds or raise them even higher. He

▶ also wants to ensure that qualifying production really does support American jobs (though it is unclear how he could do this). Companies seeking waivers will have their requests made public. Agencies will scout for small firms to fill gaps. And officials will review the list of products treated as exempt from the BAA because they are not available in sufficient quantities in America, which includes personal-protective equipment, tungsten and cobra venom.

What do the changes mean for firms? Contractors have grown weary of promises to push out foreign suppliers. Jimmy Christianson of the Associated General Contractors of America (AGC) says that, unless something happens on the ground, his members "don't really care". Whereas some wanted Mr Trump's changes to go further, others were far from thrilled. A representative of Netzsch Pumps North America, for instance, complained that finding homemade components would be hard, and force up prices. With only 30% of their business serving government markets, the extra burden "will definitely kill our ability to compete in markets outside the us".

Mr Biden's changes to the waiver process sound complicated, reckons Jean Grier, a government-procurement expert. Mr Christianson notes that they could have a "chilling effect" on the number granted. If the federal government tries to funnel dollars quickly towards products without developed supply chains in America, a clogged waiver process could delay projects. That is what happened in 2009, says Brian Turmail, also of AGC, when states were told to spend federal dollars on American water infrastructure, but some components were unavailable.

All this might look like a snub to America's trading partners. In practice, though, the rule-changes may not affect big contracts much. Any worth more than \$182,000 are open to the 20 other members of the Government Procurement Agreement (GPA), which includes Australia, Canada, the European Union and Japan, as well as members of other trade deals. The Government Accountability Office estimated that around \$5bn of the \$291bn of the federal-procurement spending they measured went to firms in the six biggest supplying countries in 2014-15. Another estimate puts the value of imports (including components) higher, at 9%. Without legislative changes—and those to the GPA—it will be tricky to deprive foreigners of their slice of federal procurement.

Mr Biden has said that he wants to work with trading partners to "modernise international trade rules, including those relating to government procurement". But that too will prove difficult: when in November the Trump administration tried to remove some medical products from the GPA, it was scolded by Britain, Switzerland and the

EU. Leaving the GPA, Ms Grier warns, could shut America off from services procurement overseas.

Some trading partners worry that, fed up with tweaking rules on federal spending, Mr Biden could attach blunt conditions on how states spend stimulus dollars, which falls outside the GPA's remit. That, though, could create problems by slicing through supply chains. After first shutting Canada out of stimulus spending in 2009, for instance, the reality of integrated North American production meant that the Obama administration carved out an exception for them. Protectionist talk on the campaign trail is easy. Putting it into practice is another matter.

Market mania

Will the GameStop?

NEW YORK

A Reddit mob drives the markets, and Wall Street pros, crazy

WEEK AGO few people had probably Aheard of GameStop, the beleaguered brick-and-mortar purveyor of video games. Millennials might recall visiting a store in their youth; their parents, perhaps, taking them. None can claim ignorance now. The firm's share price has spiked from a few dollars in 2020 to a peak of more than \$350 on January 27th, transforming a firm that was valued at less than \$200m in April 2020 into a \$24bn middleweight. This meteoric rise has been chronicled on every front page, pored over on financial television and even discussed in the halls of power. Jerome Powell, the chairman of the Federal Reserve, was peppered with questions about the firm's dizzying ascent at a press conference. Jen Psaki, the White House press secretary, said that Janet Yellen, the treasury secretary, was keeping a close watch on events.

Why such a fuss? Perhaps because the story itself is staggering. There is a tiny nugget of sense in GameStop being worth more now than it was last year. In August Ryan Cohen, the former boss of Chewy, an online pet-food store, began amassing a large stake. In November he turned activist, writing to the board to urge it to invest in e-commerce. The board liked his plan and offered him and his former colleagues seats. Investors liked it too. By January 11th, his first day as board member, the 12.9% stake that he had paid about \$76m for had doubled in value.

The rest—which has turned him into an overnight billionaire—is fuzzier. The frenzy has been fuelled, seemingly, by users of r/wallstreetbets, a forum on Reddit that now has more than 4m followers. These retail investors have hoovered up shares and placed leveraged bets that GameStop's price will rise. Some forum-dwellers point to fundamental reasons, such as Mr Cohen's involvement, to justify their bets. But most express a vigilante-style desire to stick it to establishment investors, who had spurned GameStop. The retailer had become a target of short-sellers, who borrow shares, sell them, and later buy them back, ideally at a cheaper price. It was a popular trade: the total value of short positions in GameStop was more than the company's market capitalisation in late January. Retail investors wanted the shorts to lose money.

And they did. Bullish retail traders were ginned up when the marketmakers who sold them their bets were forced to hedge against rising prices by buying shares. Short-sellers were also forced to buy shares after incurring losses worth several billion dollars. The wall-to-wall coverage of the stock has prompted yet more investors to pile in. GameStop was the single most traded stock in America on January 26th; volumes matched that in the five biggest tech giants combined (see chart). The share price more than doubled the next day. The masses are coming for other heavily shorted stocks too. Share prices for AMC, a chain



• of cinemas, and Nokia and Blackberry, which once made popular mobile phones, have also spiked.

In many ways the furore seems almost as remarkable as the move itself. For the shorts that lost their shirts the spike in GameStop is hugely important. But most investors' portfolios are probably unaffected by the price action. Instead the reaction—a wave of bafflement, even panic, that has washed over Wall Street and drawn in those running the country—speaks to a larger disquiet about American stocks.

For months investors have fretted about

a potential stockmarket bubble, their concerns reflected in the fat valuations of tech stocks and the dizzying heights to which shares in Tesla, an electric-vehicle maker, have soared. The exuberance displayed by retail investors is yet another reason to fret. In an op-ed for Bloomberg, Mohamed El-Erian, the former boss of PIMCO, a bond fund, warned that the GameStop frenzy is a prelude to possible "large-scale financial volatility and market dysfunction". Mr Powell was calmer, noting that financial-stability vulnerabilities overall were moderate. But stocks were jittery on January

27th. The s&P 500, an index of American shares, fell by 2.6%.

Jumpy professional investors will now have to keep one eye on the mob—and the other on the more conventional risks of an inflation scare or faltering corporate earnings. Apple fared well in 2020, helped by pandemic spending on electronics (see Business section). But high supply-chain costs dented profits at Tesla and Facebook warned of headwinds to its ad business. Slowing profits from the giants of America's stockmarket would really give investors something to panic about.

Buttonwood Time warp

Markets are frothy—but beware the siren call of market timing

Hadvice you might not usually find in any tip-sheet, newsletter or "thoughtful" weekly column on capital markets. It comes from Will Rogers, a popular entertainer and wit of interwar America, via the writings of Paul Samuelson, a Nobel prizewinning economist and wit of post-war America. Are you ready? Here it is. You should buy stocks when they are going to go up. When they are going to go down, you should sell them.

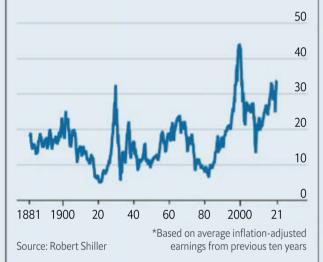
Nice work if you can get it, quipped Samuelson. It is a shame only a few can. Yet the idea of timing the market—all ups, no downs—remains a seductive one. Anyone who invests in equities has at one time or another fancied they can sell at the top and buy again at the bottom, thus enjoying the return from stocks while avoiding the risks. It seems simple. If stocks are dear and investors look heedless, you should get out of the market. When it falls back, as it surely must, fill your boots.

There is a lot of this thinking around just now. The cyclically adjusted price-earnings (CAPE) ratio, a measure of value constructed by Robert Shiller of Yale University, has rarely been higher. The combination of social media and low-cost trading apps aimed at small investors is behind a lot of herding into faddish stocks, a signifier of toppy markets. In such circumstances it is tempting to try to outwit the herd. But market timing is harder than it looks. Few have the skill, temperament or the focus to do it profitably.

Stock prices are noisy. The axiom used to be they are a random walk: their current levels tell us nothing about where they are going. A less purist view has since emerged. This says the earnings yield—the inverse of the CAPE—is a

CAPE-ability

United States, cyclically adjusted price-earnings ratio*



decent guide to the expected returns on equities in the longer run. Put simply, high stock prices now mean lower returns in future. At today's CAPE, expected returns are well below the long-run average, just as they were in the late 1920s and the late 1990s (see chart).

The sharp-eyed will notice that whenever stock prices have gone up a lot faster than earnings, they tend to fall back again. But would-be market timers could not have known precisely when to sell. It is never obvious that the CAPE is close to a peak or trough. Studies of timing guided by valuation metrics such as the CAPE show disappointing results compared with just buying and holding stocks for the duration. A big problem is selling too early. As Samuelson, who wrote a lot about the perils of timing, once put it: "Anything can be carried on to twice where it has already reached." When the market does crater, it is not so easy to act. It takes nerve to buy when everyone is selling. Delay seems wise. Prices could always fall again. The fate of many a market-timer is to buy stocks back at higher prices than those at

which they sold.

Despite today's low expected returns, shares still have some appeal, because of the paucity of returns on offer in other asset markets. In the late 1990s, when the CAPE soared above 40, the vield on inflation-protected Treasuries was close to 4%. Today it is -1% on the ten-year bond. If low real rates are the main prop for share prices, then any attempt to time the stockmarket is in essence a bet on the bond market—and, in turn, on how inflation evolves, and how central banks react to it. Good luck with getting those calls right. The forces behind the decades-long decline in real interest rates and quiescent inflation are not well understood even by people who have spent a lot of time thinking about them.

It is hard for most investors to make judgments about whether, when and how quickly these secular trends will go into reverse. Yes, there is something screwy about negative real bond yields. In America they are a novelty. But in Europe and Japan they have lasted for far longer than many people thought possible. Agnosticism about their future path is probably the best policy.

It would be lovely to have ups without downs. But investment rewards generally come with risks. The advice from market-timing sceptics like Samuelson is of the mom-and-apple-pie kind. Sell down your stockholdings to the sleeping point, where you can rest easy at night. Spread your bets widely across stocks and geographies—stockmarkets outside America have lower CAPE ratios and higher expected returns. And remember, timing is a snare. If there were reliable trading signals, everyone would follow them. And then there would be no one to sell to at the top and no one to buy from at the bottom.



Indian banking

Can cannot be kicked further

Will the dire state of India's public-sector banks force the government to act?

RIPPLED BY YEARS of mismanagement, Cmuch of India's financial system was poorly positioned even before the turmoil of covid-19. s&p, a rating agency, reckons that non-performing assets as a share of loans came close to double digits in 2019—a much higher rate than other big emerging markets, except for Russia. The government's own straitened finances meant that there was little scope for aid when the crisis struck. Instead, it put off a reckoning while minimising upfront costs. A moratorium that was in place until August let borrowers skip payments and banks pretend they were being paid; another provision allowed loans that would otherwise be placed in default to be restructured.

Banks' earnings for the final quarter of 2020, which are starting to be released, contain hints of what unfolded after the moratorium ended. Earnings reports from the successful private-sector banks, notably HDFC and Kotak Mahindra, showed tolerable credit losses and strong deposit growth, as perceptions of their strength instilled confidence in customers. The public banks continue to show far higher levels of non-performing loans—and a temporary stay imposed by India's Supreme Court on classifying borrowers in default means that these are likely to be understated. There are reasons to think that these problems cannot be ignored for much longer.

The widening gap between the private and public banks reflects an acceleration of a long-running trend, says Saurabh Tripathi of BCG, a consultancy. The state lenders, which were nationalised more than half a century ago under the socialist administrations of Jawaharlal Nehru and his daughter, Indira Gandhi, still account for about 60% of all loans. But the handful of privately run banks set up in the 1990s have gained market share, and account for most of the banking system's innovation and profit (see chart). Customers' enthusiasm for digital banking during the pandemic has only abetted their rise.

By contrast, the state banks' record of poor lending decisions forced the central government to infuse more than \$35bn into them between 2015 and 2019—more than it spent on public health in that time. The pandemic has brought more troubles. Plenty of loans went unpaid as a result of the moratorium—fully two-thirds of state banks' loans in April, compared with a third of domestic private banks' loans. A



chunk of them may never be repaid. The Reserve Bank of India (RBI) projects that 16-17% of public banks' assets will be classified as non-performing by September this year. That would wipe out even robust institutions. According to the RBI, at least four, and possibly as many as nine, banks will need to be recapitalised.

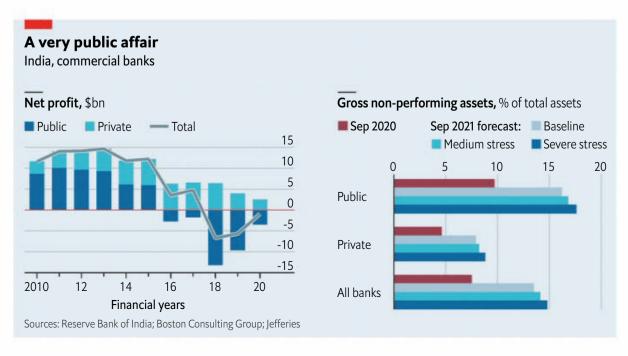
Keeping these institutions going will require large new infusions of cash. Their size and political importance, in doling out loans to farmers and small firms, means that letting them collapse is unthinkable. But from where is the money to come?

Private banks, with their healthy returns and prospects, have been able to draw on overseas investment over the past year. Indeed when Lakshmi Vilas Bank, an old private lender, failed in October, it was bought by Singapore's DBS Bank. More such deals could happen. But it seems farfetched to imagine that politicians would let state banks fall into foreign hands—and also, perhaps, that foreigners would want to buy them. Several other options are being discussed—but few are palatable to both investors and the government.

One idea, which is rumoured to be on the cards when the government announces its budget on February 1st, is a roll-up of state-owned banks into a holding company, shares and bonds in which would then be sold to the public. This has the advantage of sweeping the banks' problems into a single, large entity with cohesive management and an unsullied name—all attractive to the government but, without a state guarantee, less so to investors.

Another proposal, from Shaktikanta Das, head of the RBI, is to set up a "bad" bank to absorb the rot on a one-time basis. This would free banks to provide fresh credit, but it would not prevent more bad loans building up. An advisory group within the central bank has also floated the idea of allowing India's conglomerates to expand into banking, in order to attract private capital. Whatever the benefits, that raises the possibility of tycoons using deposits as a source of cheap funds.

The option deemed most desirable by analysts and bankers is the least politically attractive: a thorough flushing of the system, beginning with bad debts but extending to governance. State banks pay low salaries, frequently change their politically appointed bosses and lend to politically favoured causes. Proper reform would change all this, say through privatisation. That has been beyond recent governments, and the current one seems unlikely to take on the task. But the post-covid state of the banks means something must be done.



Free exchange | The fight over fifteen

Is a large increase in the federal minimum wage worth the risk to jobs?



Mincreasing the federal minimum wage to \$15 an hour from \$7.25. Two-thirds of them—and more than 40% of Republicans—favour such a rise, according to Pew Research Centre, a polling firm. Economists, however, are more divided. When a panel of eminent scholars was asked in 2015 whether a \$15 minimum would deal a substantial blow to employment, 40% of respondents were undecided, and the rest were split evenly for and against. There is an explanation for the indecision: the world has little experience of large minimum-wage rises, and they could cost an economy jobs. Yet history also suggests that such increases, implemented with care, may nonetheless have beneficial longer-term effects.

Economists no longer reflexively oppose minimum wages, as most once did. Empirical work assembled over the past three decades has demonstrated that modest increases in the minimum wage typically have, at most, small negative effects on employment. In an overview of research conducted for the British government in 2019, Arindrajit Dube of the University of Massachusetts at Amherst concluded that minimum wages of up to 60% of the median wage, or 80% of the median in low-wage regions, have negligible employment effects. Firms have more scope to absorb the cost than economists once supposed. A match between a job and a worker creates a surplus to be divided between employee and employer, in a manner that is largely determined by the bargaining power each side wields. Minimum-wage rules may help workers capture more of this surplus. Higher pay comes out of companies' profits with little associated employment cost.

The scope for firms to adjust is not infinite, though, and in some parts of America a \$15 minimum, which is more than what at least 30% of workers nationwide were paid in 2019, could be more than employers can handle. Many state and local governments have adopted minimums above the current federal level, in some cases even exceeding \$15. But others observe the \$7.25 minimum. In 21 states, a \$15 wage would more than double the minimum; in 28, it would push the pay floor above 80% of the state-level median (rising to a full 100% of the median wage in Mississippi). The Democrats' proposal would phase in the new minimum over four years, in which time median pay would rise, too. Even so, the in-

crease might in some cases outstrip firms' capacity to absorb higher labour costs or raise prices without sacking workers.

What happens after that, though? This is harder to predict, because there have been few comparably large increases before. Perhaps more spending by the workers who receive rises rather than pink slips would support the creation of better paying jobs, offsetting some employment losses. Perhaps interstate migration—which has fallen steadily since the 1980s—would rise as displaced workers sought out opportunities in higher-productivity cities. Or perhaps a political backlash would prompt repeal.

America's own experience suggests that a difficult adjustment could be followed by better times. Gavin Wright, an economic historian at Stanford University, reckons that something of the sort occurred in the American South as a result of the New Deal. Before the 1930s the southern economy looked very different from the rest of America, which led the world in productivity and income per person. Factories and farms in the South favoured low-productivity, labour-intensive production over the more capital-intensive techniques common elsewhere. Southern governments neglected investment in education, aware that residents who obtained schooling were very likely to migrate. Whereas the rest of America benefited from a virtuous cycle of accumulation of human and physical capital, rapid productivity growth and rising incomes, the South remained stuck in a nasty low-wage rut.

Franklin Roosevelt's imposition of national wage and labour standards broke this equilibrium. Southern producers found themselves with little choice but to adopt labour-saving technologies; low-wage workers, short of employment opportunities, migrated out of the South in droves. Fearing mass unemployment and the loss of political clout that depopulation would bring, southern governments abandoned their attitude of insularity and instead sought to become more attractive to investors from outside the region. Between 1930 and 1980, incomes per head in the South as a percentage of the national average rose by roughly 30 percentage points, and southern cities built around knowledge industries became magnets for migrants from elsewhere.

Here's the new deal

Convergence in incomes between poor states and rich ones, so rapid before 1980, has slowed dramatically since, and the productivity gap between superstar cities and others has yawned. It is perhaps not a complete coincidence that the federal minimum wage, adjusted for inflation, rose steadily between the 1930s and the 1960s, but has alternately stagnated and declined thereafter. Today's economy is very different from that in the mid-20th century, but a low minimum wage may have once again enabled some firms to rely on pockets of low-skilled labour, rather than investing in modern equipment and processes. A higher minimum wage could press them to change course, eventually yielding benefits to the economy at large.

Workers are unlikely to thank politicians who blithely create unemployment in pursuit of economic transformation. For that reason, it may be wise to allow low-wage states more time to phase in a \$15 minimum, giving them an opportunity to invest in education and infrastructure, and to incentivise the private sector to boost productivity, rather than shut up shop or leave town. The alternative would be high unemployment and perhaps a population exodus. It is a risky path. But with the right economic management, higher minimum wages could play a role in lifting up left-behind people and places.



Competition and innovation

TV's tech wars

Television-makers are pitting rival technologies against each other. Customers will see better pictures on their screens as a result

VER THE decades since its invention, the goggle box has been transformed almost beyond recognition. What was once a bulky cabinet sitting in the corner of the living room has grown like Topsy in height and width and shrunk like Ant-Man in depth. The picture itself, once a blurry black-and-white image composed of scanning lines visible to the eye, is now a pinsharp display presented in a spectrum of hues so rich than even Van Gogh would not have balked at using them. It takes only a slight stretch of the imagination to view TVS as objects more like oil paintings, better suited to hanging on a wall than sitting on the floor. And that, increasingly, is where they do hang.

Yet as good as televisions have become, they are about to get yet better. Rival makers of the two types of screen technology, one, called LED, based on liquid crystals and inorganic light-emitting diodes, the other, called OLED, on organic light-emitting diodes with no liquid crystals involved, are beautifying their offerings to

the point where they are more dazzling than Lady Gaga. Tvs of the future will have yet brighter images with yet higher contrast. Their screens will be bendable and may even become transparent.

Alphabet soup

All of this is driven by intense competition. At the cheap end of the market, most television-makers offer customers both LEDS and OLEDS. But at the top of their ranges they have become specialists. Samsung, a South Korean firm that is the world's biggest television-maker, and TCL Electronics, a giant Chinese group, focus on LED models. By contrast LG, another South Korean electronics outfit, devotes its upmarket efforts to OLED. These three firms now dominate the provision of television sets, joint-

→ Also in this section

65 A new type of TV audio

66 Cell cultures as pet food

ly accounting for more than 40% of global sales, according to 1HS Markit, a research firm. And they are deadly rivals.

Despite their similar acronyms, LED sets and OLED sets work in substantially different ways. Indeed, the term LED is a bit of a misnomer for the former. The crucial parts of the screen are actually the liquid crystals. These are tiny, electronically manipulated shutters that permit or prevent the passage of light. Individual picture elements, known as pixels, consist of a trio of these shutters, each masking a filter that passes light of one of the primary colours, red, green or blue. Behind all this paraphernalia is a strong white backlight which is, indeed, generated these days by light-emitting diodes, but which was once the product of fluorescent bulbs. A pixel's hue in an LED set is determined by how open or closed each of its shutters is, and thus what mixture of primaries gets through them.

An OLED TV, by contrast, has no backlight. Its pixels are made of organic materials that emit light when stimulated by an electric current. Different materials emit different frequencies, so different colours can be mixed in this way.

There is also one other difference. When an OLED pixel is switched off, it relaxes to a deep, dark black. Even when closed, however, the shutters of an LED system permit some of the backlight to sneak through. The result is not so much black as grey, which reduces the contrast between

illuminated and unilluminated pixels.

The upshot of these various strengths and weaknesses is that LED TVS have bright, high-definition images, while pictures displayed on OLED TVS have richer colours and more contrast. Moreover, lacking a backlight, OLED TVS can be made slimmer and lighter than the LED variety. OLED screens are, however, trickier to manufacture. TVS made with them are therefore more expensive—sometimes more than twice the price of a similar sized LED television. For the customer, it is thus a matter of, "you pays your money and you takes your choice".

One answer to the backlighting problem is to call on the services of micro LEDS. Unlike standard LEDS, these are small enough to be assembled like OLEDs into image-forming pixels. Both Samsung, in the form of a monster called The Wall, which measures 146 inches (3.7 metres) from corner to corner, and Sony, a Japanese firm, in the form of a product called Crystal LED, have micro-LED systems built from individual screen modules which can be assembled to make displays of various sizes for commercial use in places like sports stadiums. Now, though, micro-LED televisions aimed at the retail market are on their way. At this January's Consumer Electronics Show (CES), held online rather than, as is more usually the case, in Las Vegas, Samsung unveiled a 110-inch micro-LED television constructed as a single unit. This, it says, will be the first in a new range of TVS of various sizes that will go on sale later this year. Television aficionados will, though, need deep pockets to buy one. Reports from South Korea suggest the new model will cost more than \$150,000.

Quantum mechanics

That will not last long. All new electronic technologies start off being expensive in this way. When Westinghouse brought out the first colour TV in 1954 it cost \$1,295, equivalent to some \$12,500 today. By the 1960s colour televisions could be bought for a few hundred dollars. If new devices are successful, prices tumble as production volumes increase. Lining up 24m individually controlled micro LEDS, each only a few microns across, with the precision needed for them to work as self-illuminating pixels in such a big television screen is a tricky business. But Samsung says it has found a way of doing this, based on its production of semiconductor chips, which require similar precision.

Samsung reckons that, because micro LEDs are made of inorganic materials, they will last long enough for more than a decade of viewing. This is a dig at OLED screens. There has been some concern that the organic materials from which these are formed may deteriorate, shortening the life of a television which employs them. This was, indeed, once true. LG, though,

maintains that it is no longer a problem because the manufacturing process has been refined using improved materials to make screens that are more resilient.

The logical end of this shrinkage of light-generating elements is a screen that has pixels made from quantum dots. These are tiny semiconductor particles which, if excited by light or electricity, glow in a specific colour that depends on their size. Larger dots give off light at the red end of the spectrum. Smaller ones shine blue.

Such dots are already used in some LED televisions as a layer above the backlight, an arrangement known as QLED that helps to produce brighter images and also improves contrast. Quantum dots could,

though, at least in theory, be used in the way micro LEDs are, as elements of individual pixels that emit their own light directly from the screen. It is early days, but Samsung, for one, has been looking at some sort of hybrid screen which would combine quantum dots with OLEDS.

Enter the mini

Just to confuse things further, televisions called mini LEDs are also hitting the market. TCL already makes devices which employ them, and Samsung and LG have just launched their own versions.

Mini LEDS are not the same as micro LEDS. They do not produce an image but are, rather, used to improve backlighting. A >>>

Television audio

In your face

Generating sound from the screen

A LTHOUGH PICTURE quality has improved greatly with the development of flat-screen televisions (see adjacent article), sound has taken a dive. The problem is that TVS with slimmed-down screens have insufficient room for decent speakers to be fitted to them, either at the back or in the frame. Such televisions are therefore usually connected to an external sound system, such as a sound bar or a home-cinema system, to improve their audio quality.

The loudspeakers of early televisions were as big as the screen, but engineers have got good at making speakers smaller and squeezing them into tighter spaces. A conventional speaker produces sound waves using an electromagnet to vibrate a cone-shaped diaphragm, but there are other ways to generate sound, including employing an actuator to vibrate a flexible panel. That raises the question, why not vibrate the TV screen itself? And this is exactly what a couple of television-makers are now doing.

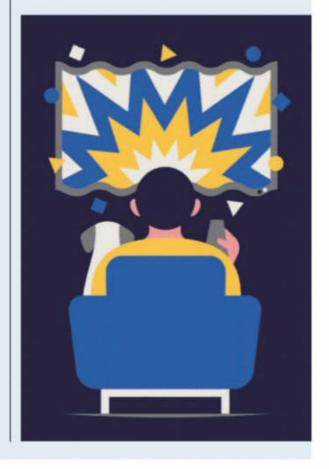
Sony, of Japan, was the first to announce it had developed such a system, which it calls Acoustic Surface. It is now fitting this to some of its upmarket televisions. Acoustic Surface employs a pair of rear-mounted actuators to vibrate a screen made with organic light-emitting diodes (OLEDS). Unlike screens that employ regular inorganic LEDs as a backlight, OLEDs emit their light directly. This means OLED screens have few layers—and that, in turn, means they are easier to make flexible and are thus able to vibrate more easily.

This vibration is invisible to the viewer and, Sony says, does not affect picture quality. One beneficial consequence is

that a programme's soundtrack is broadcast directly at the viewer instead of from the side, as is the case with separate speakers. It is also possible to create stereo effects by moving the sound's point of origin across the screen.

The other version of vibrating-screen technology now on offer is Cinematic Sound, from LG, a South Korean firm.

This includes, as one of the screen's layers, a 600-micron-thick film that works as an "exciter" to vibrate the display. It is all very snazzy. Sceptical audiophiles and Luddites will be pleased to note, though, that both sorts of sound screens can still be connected to separate audio systems, if the owner so desires.



▶ standard set has a hundred or so LEDS. Mini LEDS can be packed together by the thousand. This multiplication permits different areas of the backlight to be brightened or dimmed independently of one another. The result, says Samsung, is that dark areas on the screen can be made darker and bright areas brighter, thus allowing mini-LED televisions to get even closer to rivalling the images produced by OLED sets.

LG disagrees. It reckons mini-LED TVS are limited in their ability to increase levels of contrast, and are still eclipsed by OLED televisions. To retain that advantage, LG has developed new organic materials and made other changes it is more cagey about. Because these new materials are around 20% more efficient at producing light, the firm says its OLEDS can now display even brighter and more vivid images.

That OLED TVS do not have to bother with a backlight helps with innovation of other sorts, as well. Both types of screen, if set on a plastic rather than a glass substrate, can be made pliable. But this is simpler to do with OLED screens as they have fewer layers. Hence OLEDs are the screens of choice in foldable mobile phones.

It's showtime

Pliable screens are now spreading to televisions. At the CES, LG announced a bendable TV. Curved-screen televisions have been available for several years, but have not been successful. Such a screen may suit a single viewer, who can seat himself at the optimal point to benefit from its curvature, but it is not so great for a family looking at it from different directions. Bendable TVs get around this problem, LG says, because their screens can be curved around a single viewer (a proposition particularly appealing to some gamers) or straightened out for group audiences. Intriguingly, LG's bendable screen can also be made to vibrate, and thus to work as a giant loudspeaker (see box on previous page).

Since they have no backlight to get in the way, OLED screens can even be made transparent—and such screens are already beginning to be deployed in shops and museums, and as see-through corporate-information boards. At the CES, LG displayed a consumer version which works as a television. The 55-inch set in question was featured at the foot of a bed, where it could be raised and lowered.

Whether that was a gimmick or a serious test of the market is not clear. LG has given no indication of when a transparent television might actually go on sale. As the television war continues, though, it is a fair bet that consumers will be in for more such treats. Since the days of John Logie Baird, the television's inventor, manufacturers have constantly tried to outdo one another with better technology. They will continue to do so for many years to come.

Cell cultures as pet food

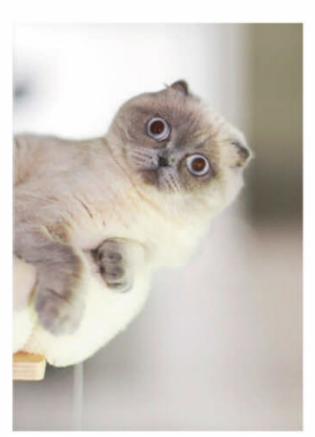
Try it on the dog

Lab-grown meat may solve some pet owners' dilemmas

 ${\bf P}^{\text{ET}}$ owners, at least in the West, are more likely than other people to be vegetarians or vegans. That puts many of them in a quandary when it comes to feeding fully paid-up carnivores such as cats and dogs. But technology may soon resolve this dilemma. The idea of growing meat for human consumption from scratch, in the form of cell cultures, is now becoming popular. Some see in this approach a way to produce guilt-free pet food, too. Among these visionaries are Shannon Falconer and Joshua Errett, the founders of Because Animals, a firm based in Philadelphia. They have taken the idea to what might be seen as its logical conclusion, for the starting point for their cultured cat food is that favourite feline prev. a mouse.

Mice are, indeed, what brought cats and people together in the first place—the two species having a shared predatory interest in the rodent populations that inhabited the grain stores accumulated by early farmers. To square this primordial feline appetite with the modern world's more refined sensibilities, researchers at Because Animals isolated murine stem cells, which will multiply explosively if treated well, from a biopsy of the skin of an appropriate rodent, and have so multiplied them. The result, the firm hopes, will be on the market by the end of the year.

Lest any sensitive pet-owner worry that



You put what in it?!

even a single mouse was exploited in an unjustified way to achieve this, the firm is at pains to clarify that the cell donor has retired to live with one of its scientists in a "plush mouse house". That is definitely a wise and diplomatic move. One of Because Animals' competitors, Wild Earth, of Berkeley, California, which had had similar thoughts about making cat food from cultured mouse cells, chose to withdraw after finding itself on the receiving end of hostile responses based on the misapprehension that the production process would involve killing laboratory rodents.

Wild Earth has now retreated to safer ground. It has teamed up with other developers of cultured meat to investigate the possibilities of fish and chicken cells instead. It plans, also by the end of the year, to launch products made by mixing these with its existing vegan pet food formulae.

A third firm, Bond Pet Foods of Boulder, Colorado, is developing something one step yet further removed from conventional pet food. It, too, works with chickens. But instead of growing their cells directly, it is inserting genes for nutritionally important chicken proteins into cells of brewer's yeast. These reproduce faster than chicken cells do, and nurturing them is a well-understood art. Bond hopes to have dog food containing proteins extracted from these cells on the market by 2023.

Ciao chow

As a consequence of their target market—devoted "pet parents", as industry parlance refers to them—all three firms hope to sell at premium prices. Moreover, manufacturers of laboratory meat, whether intended for people or for pets, can claim green credentials on top of conscience-free carnivory. Dr Falconer says that a kilogram of cultured meat generates just 1.7kg of carbon-dioxide emissions, compared with 27kg attributable to the same quantity of beef. Vats of cells also require far less land and water than farmed animals.

Turning cultured cells into pet food is a clever idea for reasons besides pet-owners' sensibilities towards the animal origin of their charges' food. Unlike human customers, pets are not in a position to be fussy about what the food they eat actually looks like. And they are, in any case, used to consuming dried kibble and nondescript wet foods. It is easier to turn cultured cells into these than into something resembling the juicy joints and steaks that many people like to tuck into. As long as the concoctions taste good to a pet, they will be wolfed down. Indeed, both Mr Errett and Rich Kelleman, the founder of Bond Pet Foods, claim to have tested their firms' prototypes on their own pets. And Ryan Bethencourt, one of the founders of Wild Earth, has gone further. He has promised to taste his own wares before trying them on animals.



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Immigration

The best of both worlds

Two books look at how migrants affect the countries they move to

In 1885 A penniless, sickly German draft-dodger arrived in New York. Official records listed him as "Friedr. Trumpf". Occupation: "none". America had no immigration restrictions in those days, so he was allowed in. He made a fortune running restaurants and brothels in the gold-rush era. He then moved back to Germany, but since he had evaded military service, he was stripped of German citizenship and deported. He returned to the United States and founded a dynasty.

His grandson, Donald Trump, spent the past four years trying to lock immigrants like his grandfather out of America. One of his last trips as president, on January 12th, was to admire his wall on the southern border and denigrate the foreigners it is meant to exclude. "They may be murderers. They may be cartel heads. They may be some really vicious people," he warned.

Joe Biden takes a different view. He had barely arrived in the Oval Office when he revoked several of Mr Trump's curbs on immigration (such as a ban on arrivals from a list of mostly Muslim countries) and proposed legislation to let more people become citizens. Mr Biden understands that centuries of sucking in foreign talent have

Them and Us. By Philippe Legrain.

Oneworld; 320 pages; \$30 and £20

Wretched Refuse? By Alex Nowrasteh and
Benjamin Powell. Cambridge University

Press; 240 pages; \$29.99

made America rich and dynamic. He would like to open up the country again, at least a bit. But two things make that tricky. One is the pandemic: until it abates, global mobility is on hold. The other is that in America and elsewhere many voters—including some who, like Mr Trump, are themselves descendants of immigrants—share his belief that letting in more of them would make their countries worse.

The evidence suggests otherwise, as two new books make clear. "Them and Us" by Philippe Legrain, a former *Economist* journalist, sets out the benefits of migration and asks how newcomers and locals can get along better. "Wretched Refuse?" by Alex Nowrasteh and Benjamin Powell, a think-tanker and an academic, asks a crucial question: might immigration from poor, corrupt countries undermine the institutions of rich, well-governed ones?

Mr Legrain's book is the more accessi-

ble: though underpinned by scholarship it is chatty, entertaining and full of anecdotes, such as the one with which this review begins. He breezily rebuts popular arguments for closed borders, and turns populist slogans upside down.

Complaints that immigrants are not "like us" miss the point, he insists. If they were identical to natives, "they would bring nothing extra to the party except additional bodies". In practice they bring skills and contacts that the host nation lacks, and new perspectives that enhance their interactions with locals. For instance, a percentage-point bump in the share of American graduates who were born abroad raises patent applications by a whopping 15%. One study found that immigrants with a background in science, technology, engineering or maths accounted for 30-50% of the improvement in American productivity between 1990 and 2010. A study by the IMF found that by increasing the diversity of skills and ideas, migration has boosted living standards by 30% or so in both Britain and America.

When in Rome

Unskilled immigrants, too, are different from unskilled locals in ways that benefit the host nation. They are more mobile, so they can revive decaying cities. They have different priorities. For example, natives typically shun fruit-picking because it is seasonal and they want permanent jobs. For migrants, by contrast, seasonality is often appealing: many want to earn money quickly and then return to their families.

Mr Legrain's book fizzes with practical >>

ideas. Though they generally pay their way, immigrants are often perceived as a burden, he observes. This is because public services respond too slowly to changes in population, so schools and doctors' waiting rooms become crowded. This suggests that governments should learn from the private sector, which adapts far more quickly. "Nobody blames migrants for shortages at local supermarkets—because there aren't normally any," he notes.

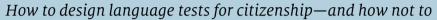
Facts matter, but so do words, he argues. People who oppose immigration in the abstract often change their tune when asked about specific types of immigrant, such as doctors, students or foreigners who marry locals. As for those who complain about a "brain drain" from poor countries—this is like labelling women's entry to the labour force the "family abandonment rate".

"Wretched Refuse?" is a denser book, full of charts and regression analysis. It is also highly original, and takes a chainsaw to the most intellectually respectable case against immigration. No serious economist denies that when people move from poor countries to rich ones, they become more productive and their wages soar. It

seems likely, therefore, that more migration would make the world much richer. However, some scholars think that too large an influx from, say, Congo to Canada would make Canada more like Congo—ie, the immigrants would import Congolese habits, and gradually make Canadian institutions more like the corrupt and lawless ones that keep Congo poor. Yet remarkably little effort has been made to test this hypothesis. Messrs Nowrasteh and Powell do so as rigorously as they can.

Disentangling cause and effect is tricky. Simply pointing out that countries with >>

Johnson Stress tests



PERFECT SWEDISH is overrated. But comprehensible Swedish is deeply underrated," says Ulf Kristersson, the leader of Sweden's centre-right Moderate party, which supports a language requirement to become a Swedish citizen. The left has come round, too: the Social Democrat-led government plans to introduce a language test. Sweden would thereby leave the small club of European countries that do not make passing such a test a condition of naturalisation.

To learn the language of the country you live in is the key to a full life there. But many experts in language policy oppose testing for citizenship—because they suspect a less compassionate motive in some who propose them. "Becoming a Danish citizen is something one has to become worthy of," said Inger Stojberg in 2015, when she was the immigration and integration minister in Denmark's centre-right government—implying that the unworthy had been slipping through. Her thinly camouflaged goal was not to improve immigrants' Danish, but to naturalise fewer of them.

And so the Danish government, which already had language requirements, tightened them significantly. To prove they had reached the specified level in a recent test, applicants had to skim 16 pages of readings on the "People's Enlightenment", a movement originating in the 19th century to give ordinary Danes self-improving institutions such as evening classes, libraries and scouting. Applicants must answer questions like: "In principle the People's Enlightenment is for adults, but children can take part in classes intended for families. But what are the requirements for children to take these classes?" Though not exactly Kierkegaard, the material is well above the level needed to get by.

The trend in the West is clearly towards such tests. America and Britain typically require English for citizenship—in 2019 Donald Trump proposed adding requirements for certain visas as well. But the problem seems especially acute from a small-country perspective. Many European countries are linguistic communities. Europe is a crowded continent where neighbours often distinguish themselves primarily by how they speak. Centuries of nation-building from the top down strengthened the association of one language with one people in one state, at least in the ideal case. English already threatens the role of small languages. If Denmark, say, does not require even Danish citizens to speak Danish, what is the language for?

Even the keenest advocates of immigration agree that speaking the language helps migrants integrate. But they argue that the focus should be on helping them do so, not on overly ambitious targets many can never achieve. Many of Europe's migrants today arrive with psychological problems born of fleeing war and catastrophe. Others work so hard that they struggle



to find the time and energy for classes. Some are barely literate; answering fairly sophisticated written questions means first learning to read and write. When immigrants are told they must meet a highly demanding standard, many stop trying, say language teachers and researchers. They may then remain isolated in their ethnic communities, the only ones that will accept them.

Ricky van Oers, a Dutch scholar affiliated to the Western Norway University of Applied Sciences, explains the effects of raising the bar in her home country. Once, knowledge of the language was assessed in an informal conversation with a local official. When in 2003 written tests were introduced, successful applications fell by half. Since 2007 classes in Dutch have been left to a mix of state and poorly regulated private schools. Reaching the necessary level is estimated to cost €3,600 (\$4,380) on average, generally paid by the immigrant. Today, new arrivals have three years to reach that standard—one admittedly more modest than in Denmark—or face being fined up to €1,250 and being barred from permanent residency and citizenship until the test is passed.

Countries that introduce language tests for citizenship should make sure teaching is of a good quality (the students themselves are in a poor position to spot a dodgy operator). They should learn from Germany, which subsidises lessons so generously that they are practically free. Help people attend by ensuring child care if they need it. Provide incentives such as assistance with work placements. Presented with a feasible goal that can be reached with better skills, newcomers will work harder than when ordered to scale a distant peak that they can scarcely see.



▶ lots of immigrants tend to be rich, peaceful and free is not enough. People move to places like Canada and Australia precisely because they are agreeable. To get round this, the authors examine all the countries for which they can find data, noting both the stock of immigrants (as a share of population) in the 1990s and the inflow over the next two decades.

Then they look at how those countries changed over that period on a variety of measures, such as economic freedom and corruption. They find no evidence that higher stocks or flows of immigrants made host countries less free, more corrupt, or less trusting. Indeed, they find modest improvements on a number of scores.

It is plausible, they argue, that a country that grows more free or less corrupt might attract bigger inflows of migrants, but that effect would not be retroactive; it would not change the stock of immigrants at the start of the period in question. They conclude that the doomsayers are wrong. Migrants do not undermine the institutions of the places they move to. Some move because they are fed up with corruption. Others soon assimilate to rich-country norms. This makes sense. Graft in Congo is seldom punished and often pays; in Canada, honesty delivers more reliable rewards.

The debate is far from over, the authors admit. No doubt, if a billion migrants were to arrive in a single year, rich countries' institutions might buckle. But they demolish a big argument against existing levels of immigration, and suggest that most rich countries would benefit from being more open. Mr Biden and his advisers should devour their book



Geography and history

Heave-ho

Russia's greatest river divides and defines the country

WITHOUT THE Volga, there would be no Russia. The final words of Janet Hartley's book sound sweeping. But its 400 pages make the case powerfully.

Like much in Russia's geography and history, the Volga is on a grand scale. The river basin is Europe's largest. It is part of a grandiose scheme of waterways (built mostly by slave labour) that link the Baltic coast with the Arctic, the Black Sea and the Caspian. It has shaped the Russian (and Soviet) economy, culture and government. It was a vital barrier against the Nazis, who crucially failed to drive the Red Army out of Stalingrad and across it. Its hydro-electric

The Volga. By Janet Hartley. *Yale University Press; 400 pages; \$35 and £25*

power fuelled Stalin's industrial revolution. Centuries before, expansion down the Volga to the shores of the Caspian had made Muscovy into the Russian empire.

Ms Hartley's history begins with little-known states such as Khazaria (which adopted Judaism for strategic reasons); the Bolgar Khanate (nothing to do with Bulgaria but a distant predecessor of today's Tatarstan); and the Rus principalities (which were not exactly Russian). Readers unfa-

miliar with these strands of the European past may find themselves concentrating hard and wishing for better maps.

Over the centuries, rulers in Moscow and St Petersburg took and held the Volga lands by means of force, bureaucracy, ideology and assimilation. Their rule was strikingly incompetent and arbitrary; only the Soviet regime that followed could cast a rose-tinted light on the cruel, capricious tsarist era that preceded it. Mass starvation after the civil war, the agonies of collectivisation, further famine in the 1930s, the cauldron of the second world war and the grotesque environmental injuries inflicted on the river make a depressing catalogue.

Art and literature depicted but also relieved the woes. The Volga—tranquil and picturesque, yet also magnificent and powerful—was a wellspring of early 19th-century Romanticism. It was both a "mother", emblematic of Russia itself, and the backdrop for vivid injustice and suffering. Poets such as Nikolai Nekrasov, writers such as Maxim Gorky, and painters including Ilya Repin all invoked the river. So does the well-known "Song of the Volga Boatmen", with its jolly "heave-ho" refrain—less jolly for the forced labourers who actually pulled barges up the vast river, with its wayward currents and sandbanks.

A retired professor of history at the London School of Economics, Ms Hartley is a distinguished Russianist and author of a similarly ambitious book about Siberia. This one is meticulously researched and sympathetically written, even if her austere academic prose may leave some readers thirsting for more first-hand reportage.

A graver flaw is that "The Volga"—like its predecessor—blurs the ethnic, linguistic and religious patchwork underlying Russian rule of the lands on the river's shores. The Chuvash, Udmurt, Mari, Erzya and Moksha languages, and their speakers, get rather short shrift. The now-vestigial Cossacks and long-gone Volga Germans are afforded more of a look-in than modern Tatarstan's intellectual and cultural ferment. The nearly-country of Idel-Ural, which united the region's Turkic and Finno-Ugric peoples for a tantalising few weeks of independence in 1918, gets just one brief discussion. The modernising, liberal "Euro-Islam" that inspired it gets none.

Yet Idel-Ural's leader, Sadri Maqsudi Arsal, escaped the Bolshevik conquest and became the intellectual inspiration for Kemal Ataturk's Turkey. During the second world war a Tatar poet, Musa Calil, joined a Wehrmacht unit drawn from the Volga nationalities in order to subvert it, and was posthumously rehabilitated as a hero. Amid a plethora of lesser details, both are ignored here. The history and glory of Russia do not belong only to ethnic Russians, whatever some of them may say, and whatever some foreigners may believe. ■

Music in space

We are the world

SAN FRANCISCO

A project aims to beam a musical message to other planets—and back to this one

'N THE CASCADE mountains of northern **▲**California, a cluster of 42 radio telescopes points towards the stars, scanning for signs of life. The Search for Extraterrestrial Intelligence (SETI) Institute has been listening for a signal here and elsewhere since it was founded in 1984. In that time it has scoured only a minuscule fraction of space, equivalent to a glass of water in all the world's oceans. But Jill Tarter, its cofounder, is undaunted. A renowned astrophyisicst—and the model for Jodie Foster's character in the alien-encounter film "Contact"—Ms Tarter says the programme's aim is not just to communicate with remote civilisations. It is also to remind humanity of its own modest, fragile place in the cosmos. Which is why, for the first time, SETI is cocking its ear towards Earth.

It is looking for the same thing on this planet that it routinely seeks from others: a signal that can be beamed into space to represent the species. Felipe Pérez Santiago, a Mexican musician and composer—and artist in residence at the institute-has an idea of what might work. Since song, like the human voice, is common to all languages and nations, he and Ms Tarter have devised the "Earthling Project": a call to people everywhere to upload snippets of song that he plans to meld into a collective human chorus. An initial composition will be launched into space this summer, inscribed on a virtually indestructible disk alongside Wikipedia and the Rosetta Project, a sampling of 1,500 human languages. Future plans and dreams include an eventual dispatch to Mars.

Some composers, most famously Gustav Holst, have tried to capture the grandeur of space in sound. And human music has been sent to the heavens, notably on two Voyager probes that were launched in 1977 and are now more than 11bn miles from Earth. Distant beings can in theory already enjoy Peruvian panpipes, a Navajo chant, Bach, Beethoven and more. But no previous offering, and perhaps no composition undertaken anywhere, has tried to encompass the entire variety of human song.

If anyone is equipped for this galactic challenge, it is Mr Santiago. He wrote his first ditty at the age of four, trained in Mexico City and then studied for five years at Rotterdam's conservatory. There he was exposed to "Turkish, Indian, Caribbean music, everything from tango to gamelan to flamenco". The maestro has since worked

in Paris, Munich, Barcelona and Amsterdam, composing for choirs, films and ensembles of all kinds, including the Kronos Quartet and Harlem Dance Theatre. His back catalogue is exuberant, combining the clarity of classical technique with an energy he attributes to the rock bands he enjoyed in his youth.

The first piece he produces for SETI will probably resemble a "wall of sound", the composer says, incorporating as many as 10,000 unaccompanied voices. But later he proposes to craft an "earthling symphony", a piece that will doubtless reflect his peripatetic background and eclectic passions. As thrilling as it may seem to send his work into space, Mr Santiago says he is just as excited about bringing together contributors from around the globe.

For the music is intended to be not just a message to the universe, but a mirror—a chance, as Ms Tarter has put it, to say "See, we're all the same." Mr Santiago raises his hands and his eyebrows as he summarises the goal: "Can we unite humanity with 30 seconds of singing?"

Greetings, earthlings

Some elemental melodies endure for centuries: lullabies, mourning chants, songs of love or celebration, age-old tunes that lighten toil or praise a god. Like those giant Californian dishes, the project's app stands ready to receive all these, and whatever else

earthlings anywhere choose to contribute. Unlike other recordings sent into space, says Mr Santiago, "everyone's invited. You don't have to be one of the main composers of our history like Beethoven, just someone singing in their shower." Download the app, warble up to three songs of 30 seconds each, and your voice will be dispatched into the firmament.

Mr Santiago pledges to use every submission. The ultimate plan is to throw open the whole database for musicians anywhere to sample. Understanding that all earthlings share a common planet "is crucial for our long future," Ms Tarter says. "We face challenges that have to be solved by co-operating across the globe." In a small but symbolic way, the Earthling Project is meant to set an example.

It is helping to build bridges in another way, too. Astronomers and biologists, like artists, use imagination to conceive of new things, formulating questions, taking risks, experimenting and collaborating across borders. But often the worlds of art and science seem disconnected. The artists' programme at SETI encourages co-operation between disciplines—resulting in artwork that gives tangible shape to abstract data. The first participant, Charles Lindsay, investigated interspecies communication through the song of humpback whales; another, Scott Kildall, created a virtual-reality tour of all the known exoplanets. Rachel Sussman presented an image of the cosmic background radiation generated by the Big Bang—"the baby picture of the universe"—as a sand mandala.

As Mr Santiago notes, "nothing has united humanity like this pandemic." At a dark time, he and the institute aim to foster a more uplifting sense of communion. "If we can send this unified message," he says, "our mission is accomplished."



The music of the spheres

Courses 71

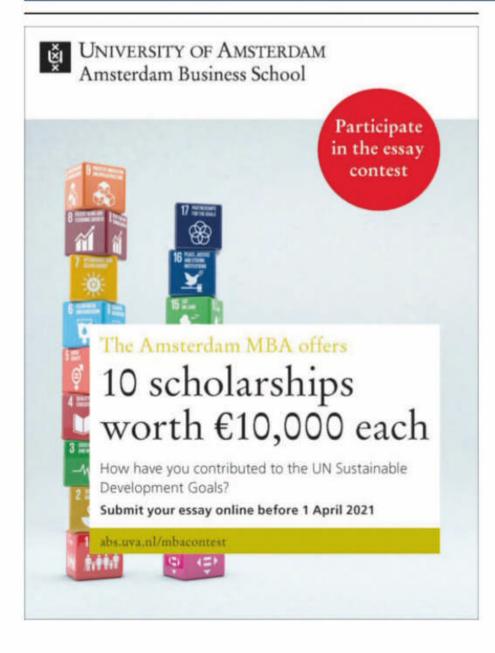


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Economic & financial indicators

Economic data

	Gross domestic product % change on year ago		Consumer prices % change on year ago		Unemployment rate		baland		Budge balan	ce	10-yr go	st rates ov't bonds	change on	per \$	cy units % change			
	latest		quarter*		latest		2020†	%			P, 2020†		DP, 2020 [†]	latest,%)	year ago, bp	Jan 27th	on year ago
United States	-2.8			-3.6	1.4		1.2		Dec	-2.2		-14.9		1.0		-57.0	-	
China	6.5		10.8	1.9	0.2		2.5		Dec ^{‡§}	1.5		-5.2		3.0	§§	24.0	6.47	7.1
Japan	-5.7	Q3	22.9	-5.3	-1.2		nil		Nov	2.7		-12.2		nil		-8.0	104	4.6
Britain	-8.6		81.1	-11.4	0.6	Dec	0.9		Oct ^{††}	-1.3		-19.7		0.3		-28.0	0.73	5.5
Canada	-5.2			-5.5	_	Dec	0.8		Dec	-1.8		-13.5		0.8		-51.0	1.28	3.1
Euro area	-4.3		59.9	-7.6		Dec	0.3		Nov	2.6		-9.2		-0.5		-15.0	0.83	9.6
Austria	-4.0			-6.9	1.2	Dec	1.1		Nov	2.4		-8.5		-0.4		-20.0	0.83	9.6
Belgium	-4.5	Q3	54.2	-7.9	0.4	Dec	0.4	6.1	Nov	-1.3		-9.1		-0.3		-22.0	0.83	9.6
France	-3.9	Q3	98.3	-9.2	nil	Dec	0.5	8.8	Nov	-2.3		-11.3		-0.3		-24.0	0.83	9.6
Germany	-4.0	Q3	38.5	-5.4	-0.3	Dec	0.4	4.5	Nov	6.8		-7.0		-0.5		-15.0	0.83	9.6
Greece	-9.6	Q3	9.5	-9.9	-2.3	Dec	-1.4	16.7	Oct	-6.6		-9.2		0.7		-53.0	0.83	9.6
Italy	-5.0	Q3	80.4	-9.1	-0.2	Dec	-0.1	8.9	Nov	2.9		-11.3		0.6		-44.0	0.83	9.6
Netherlands	-2.5	Q3	34.8	-4.4	1.0	Dec	1.1	3.8	Mar	7.2		-6.9		-0.5		-29.0	0.83	9.6
Spain	-9.0	Q3	83.6	-11.4	-0.5	Dec	-0.3	16.4	Nov	0.8		-12.0		0.1		-30.0	0.83	9.6
Czech Republic	-5.3	Q3	30.8	-6.6	2.3	Dec	3.1	2.9	Nov [‡]	1.3		-6.7		1.3		-28.0	21.6	6.4
Denmark	-3.8	Q3	22.6	-4.0	0.5	Dec	0.4	4.5	Nov	8.5		-3.6		-0.4		-6.0	6.15	10.4
Norway	-0.2	Q3	19.7	-1.7	1.4	Dec	1.4	5.2	Oct ^{‡‡}	3.2		-1.3		1.0		-33.0	8.63	5.9
Poland	-1.8	Q3	35.5	-3.0	2.4	Dec	3.4	6.2	Dec§	2.6		-7.9		1.1		-107	3.76	3.5
Russia	-3.4	Q3	na	-3.8	4.9	Dec	3.4	6.1	Nov§	2.1		-4.3		6.6		27.0	75.6	-16.7
Sweden	-2.7	Q3	21.2	-3.2	0.5	Dec	0.4	7.7	Nov§	4.8		-3.5		0.1		1.0	8.36	15.2
Switzerland	-1.6	Q3	31.9	-3.0	-0.8	Dec	-0.7	3.4	Dec	9.1		-3.7		-0.5		23.0	0.89	9.0
Turkey	6.7	Q3	na	0.4	14.6	Dec	12.3	12.7	Oct§	-5.4		-3.4		12.8		267	7.38	-19.4
Australia	-3.8	Q3	14.0	-2.9	0.9	Q4	0.8	6.6	Dec	0.9		-7.3		1.1		-4.0	1.30	13.8
Hong Kong	-3.5	Q3	11.8	-5.7	-0.6	Dec	0.4	6.6	Dec ^{‡‡}	5.5		-6.7		0.8		-77.0	7.75	0.4
India	-7.5	Q3	125	-7.9	4.6	Dec	6.7	9.1	Dec	1.3		-7.2		6.0		-60.0	72.9	-2.0
Indonesia	-3.5	Q3	na	-2.2	1.7	Dec	2.0	7.1	Q3§	-1.4		-7.2		6.2		-44.0	14,050	-3.2
Malaysia	-2.7	Q3	na	-5.3	-1.4	Dec	-0.9	4.8	Nov§	4.8		-7.4		2.7		-46.0	4.05	0.3
Pakistan	0.5	202	20** na	-2.8	8.0	Dec	9.5	5.8	2018	0.1		-8.1		9.9	†††	-116	160	-3.7
Philippines	-8.3	Q4	24.4	-9.3	3.5	Dec	2.6	8.7	Q4§	3.4		-7.8		3.0		-160	48.1	5.7
Singapore	-3.8	Q4	8.7	-6.0	nil	Dec	-0.3	3.6	Q3	18.0		-13.9		1.0		-66.0	1.33	2.3
South Korea	-1.3	Q4	4.4	-1.1	0.5	Dec	0.5	4.1	Dec§	3.8		-5.7		1.8		6.0	1,105	5.8
Taiwan	3.9	Q3	16.6	2.4	0.1	Dec	-0.2	3.8	Dec	13.8		-1.5		0.3		-30.0	28.0	7.2
Thailand	-6.4	Q3	28.8	-6.1	-0.3	Dec	-0.8	2.0	Nov§	3.6		-6.3		1.2		-11.0	30.0	2.4
Argentina	-10.2	Q3	61.7	-9.8	36.1	Dec [‡]	42.0	11.7	Q3§	1.4		-8.0		na		-464	87.1	-31.0
Brazil	-3.9		34.6	-4.4	4.5	Dec	3.2	14.3	Oct§‡‡	-0.7		-15.8		7.7		99.0	5.41	-21.8
Chile	-9.1			-6.2	3.0	Dec	3.0		Nov§‡‡	1.4		-7.9		2.6		-76.0	738	7.1
Colombia	-9.5			-7.0	1.6		2.5		Nov§	-3.6		-8.8		4.9		-86.0	3,623	-6.2
Mexico	-8.6			-8.9	3.2		3.4		Dec	2.3		-4.5		5.2		-155	20.2	-6.1
Peru	-9.4			-12.0	2.0		1.8		Dec§	1.0		-8.0		3.8		-32.0	3.65	-8.5
Egypt	0.7	_		3.6	5.4		5.1		Q3§	-3.4		-7.9		na		nil	15.7	0.5
Israel	-1.5			-3.7	-0.7		-0.6		Nov	4.0		-11.3		0.8		-7.0	3.27	5.8
Saudi Arabia	0.3			-4.2	5.4		3.5	8.5		-3.7		-10.7		na		nil	3.75	nil
South Africa			66.1	-7.3	3.1		3.3	30.8		0.6		-16.0		8.8		-31.0	15.2	-3.8
30utii Airica	-0.0	Q3	00.1	-7.5	5.1	Dec	5.5	30.8	Q3°	0.0		-10.0		0.0		-51.0	15.2	-3.0

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			
		% (change on:
In local currency	Index Jan 27th	one week	Dec 31st 2019
United States S&P 500	3,750.8	-2.6	16.1
United States NAScomp	13,270.6	-1.4	47.9
China Shanghai Comp	3,573.3	-0.3	17.2
China Shenzhen Comp	2,420.9	0.3	40.5
Japan Nikkei 225	28,635.2	0.4	21.0
Japan Topix	1,860.1	0.6	8.1
Britain FTSE 100	6,567.4	-2.6	-12.9
Canada S&P TSX	17,424.4	-3.3	2.1
Euro area EURO STOXX 50	3,536.4	-2.4	-5.6
France CAC 40	5,459.6	-3.0	-8.7
Germany DAX*	13,620.5	-2.2	2.8
Italy FTSE/MIB	21,662.7	-4.4	-7.8
Netherlands AEX	647.9	-1.7	7.2
Spain IBEX 35	7,852.7	-4.3	-17.8
Poland WIG	56,453.9	-2.9	-2.4
Russia RTS, \$ terms	1,393.0	-6.3	-10.1
Switzerland SMI	10,904.2	-0.4	2.7
Turkey BIST	1,467.0	-6.5	28.2
Australia All Ord.	7,060.2	0.1	3.8
Hong Kong Hang Seng	29,297.5	-2.2	3.9
India BSE	47,409.9	-4.8	14.9
Indonesia IDX	6,109.2	-5.0	-3.0
Malavsia KLSE	1,580.6	-1.3	-0.5

		% c	hange on:
	index Jan 27th	one week	Dec 31st 2019
Pakistan KSE	46,458.1	1.7	14.0
Singapore STI	2,958.6	-1.3	-8.2
South Korea KOSPI	3,122.6	0.3	42.1
Taiwan TWI	15,701.5	-0.7	30.9
Thailand SET	1,498.1	-1.2	-5.2
Argentina MERV	49,970.4	-0.5	19.9
Brazil BVSP	115,882.3	-3.1	0.2
Mexico IPC	44,262.0	-1.9	1.7
Egypt EGX 30	11,578.8	-0.2	-17.1
Israel TA-125	1,639.4	-2.6	1.4
Saudi Arabia Tadawul	8,784.1	-1.1	4.7
South Africa JSE AS	62,784.5	-2.1	10.0
World, dev'd MSCI	2,694.4	-2.4	14.2
Emerging markets MSCI	1,371.4	-2.1	23.0

US corporate bonds, spread over Treasuries								
		Dec 31st						
Basis points	latest	2019						
Investment grade	133	141						
High-yield	408	449						

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

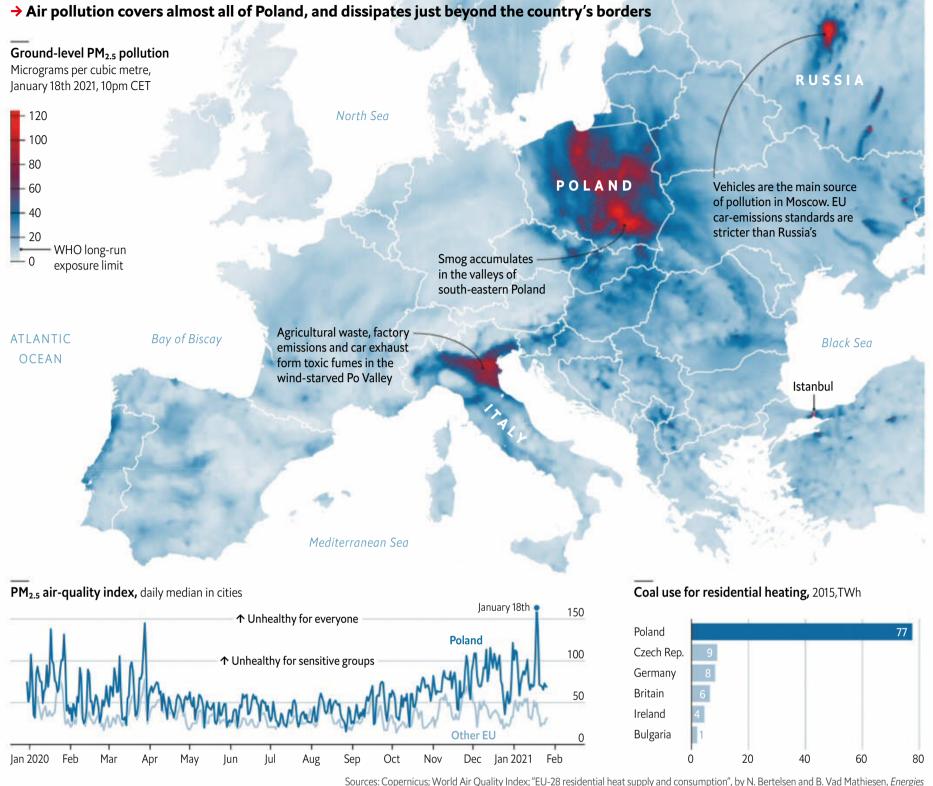
Comm	odities

The Economist commodity-price index % change on								
2015=100	Jan 19th	Jan 26th*	month	year				
Dollar Index								
All Items	159.8	158.4	2.4	39.6				
Food	125.8	124.5	4.2	24.4				
Industrials								
All	191.6	190.0	1.3	50.8				
Non-food agriculturals	124.3	131.8	2.0	29.4				
Metals	211.6	207.3	1.2	55.6				
Sterling Index								
All items	179.2	175.9	0.5	31.8				
Euro Index								
All items	146.2	144.4	3.0	26.2				
Gold				- 54				
\$ per oz	1,841.9	1,853.5	-1.4	18.0				
Brent				-				
\$ per barrel	56.0	56.0	9.3	-6.7				

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

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

Graphic detail Air pollution



Sources: Copernicus; World Air Quality Index; "EU-28 residential heat supply and consumption", by N. Bertelsen and B. Vad Mathiesen, Energies

Midnight sky

Coal-burning Poles have created a big blob of pollution

COME COUNTRIES' borders are visible If from space. At night, North Korea looks like a black void separating China from South Korea. Deforestation in Haiti has left a stark contrast between its brown soil and the Dominican Republic's lush vegetation.

Poland is an unlikely member of this club. Yet on cold days, the edges of Europe's largest region of air pollution fit its outline snugly. At 10pm on January 18th fumes enveloped almost the entire country, only to dissipate 100km or so beyond its borders.

The air breathed by an average Pole may not be Europe's dirtiest. According to the European Environment Agency, Balkan nations like Serbia do worse on metrics like years of life lost per person. However, Poland's effluvia stand out for their geographical spread. Of the 100 European cities with the most air pollution, 29 are Polish.

Poland's nationwide sheet of smog stems from its use of coal—often of the cheap, extra-dirty sort—for home heating, rather than the cleaner natural gas common in nearby countries. This causes 80% of its emissions of PM2.5, grains of matter that enter lungs easily. In the summer, Poland's PM2.5 level is only slightly above the EU average. But when Poles turn up the heat during winter, it can be three times greater.

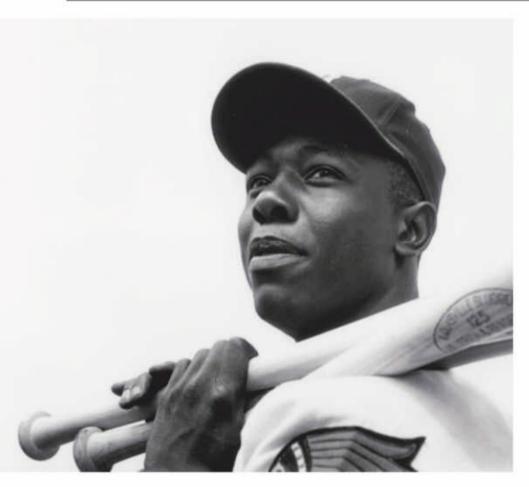
Coal seams run deep in Polish history. Under communism coal was both the main fuel for the country's economic modernisation and a big export. Afterwards, the miners' union blocked efforts to cut jobs in pits. In 2007-15 the state spent €14.8bn (\$18bn) propping up the bloated industry.

And in 2015 Law and Justice, a nationalist party, won election with a manifesto that supported coal. Poland is the only country in Europe to use more coal-derived energy for heating today than it did in 1990.

The ruling party has had to moderate its backing for coal of late. The EU has earmarked €2bn to help Poland decarbonise, while soaring prices for carbon-emission permits have made electricity from coal uncompetitive. The European Court of Justice has also found Poland in violation of EU environmental directives. Half of Poles think air pollution is a serious problem.

In September Poland reached a deal with unions to close its coal mines by 2049. It has also subsidised replacements for coal-powered heaters. The city of Krakow has banned burning coal and wood, and reaped bigger gains in air quality than those of nearby areas. However, it will take more than this for Poland to stop standing out on pollution maps on a chilly day.

74 Obituary Hank Aaron



Hammering through

Henry ("Hank") Aaron, ballplayer, died on January 22nd, aged 86

On what should have been the best day of his life, April 8th 1974, Hank Aaron stood at the plate. His weight was on his front foot, as usual. His bat was raised. They were in the fourth inning, with the Atlanta Braves trailing the Los Angeles Dodgers 3-1. But that wasn't the score to watch. The reason Fulton County Stadium was packed to the rafters was because every Braves fan wanted to see Hammerin' Hank break Babe Ruth's record, safe for nearly 40 years, of 714 career home runs. He was tied with him now. One more was all he had to hit.

The pitcher was Al Downing. He respected Downing, a solid veteran left-hander, and had already studied his best sliders and screwballs. With his keen eyes, he could judge his grip on the ball before it even left his hand. Downing threw a slider low and down the middle, not good for the pitcher, but fine for The Hammer, who blasted it into left field. The outfielder tried to catch it, but couldn't. Something carried it into the Braves' bullpen—he saw it go out—and then he was off round the bases, seeming to run in a bubble of crazed, yelling fans. As he came round third, a big smile was on his face.

It was not a smile of joy. Most of it was sheer relief. The year of chasing Ruth's record had been the worst of his life. Not because of the tension of the plays, since he was steady enough to deal with that, but because he had found himself in a whirlwind of hate. Some people telephoned to sound off. More sent letters:

You're black so you have no business even being here. Over 700 and you can consider yourself punctured with a .22 shell. You can hit all dem home runs over dem short fences, but you can't take dat black off yo face.

No matter that he was a superstar in Atlanta, or that a decade had passed since the Civil Rights Act. Babe Ruth had been white, and he was black. And this was the South. In those months, he went round

flanked by police as though he had killed the president. His first words after he'd reached home plate were "Thank God it's over."

This was the nastiest stuff he had faced in a lifetime of segregation. Growing up on the edge of Mobile, Alabama, he knew to keep to black parts of town and to go to the coloured counter. He began playing professionally in 1951 as a skinny 17-year-old in the Negro American League, before the Braves scouted him out. In the South Atlantic (Sally) League, playing for the Braves' farm club in Jacksonville, Florida, he would sit in the bus as his team-mates ate dinner in a restaurant, waiting for them to bring him out a hamburger. Some cities wouldn't let black players change into their uniforms at the park. Some refused to let black and white athletes play together. Fans would sit with mops on their heads, to mock black hair. He responded by keeping his cool and swinging. He could play well in all dimensions of the game: quick, mighty hits, powerful right-arm throws, speed on the basepaths and the field. It was largely due to him that Jacksonville won the pennant in 1953. By 1954 he was with the Braves in the major league. He stayed with them, first in Milwaukee and then in Atlanta, for 21 seasons.

In the press he was first noticed as an awesomely talented player, even if "shuffling" or "slow-talking"—racially charged words. Slow-talking or not, he had always wanted to play ball. He mostly skipped school, focusing instead on hitting bottle-caps with a broom-handle, leaping forward to lash out as they dipped and floated, which gave him his batting style for years. His father would tell him, glumly, "Ain't no coloured ballplayers." But from 1947, when Jackie Robinson became the first black player in the major leagues, his dreams became boundless. Before Jackie retired, he meant to be in the major leagues himself.

His mother, though, wanted him to be a teacher, and that haunted him for the rest of his life. What did baseball lead to? Was it just entertainment that faded away? Teachers shaped minds and changed lives. When he piled up numbers—755 career home runs, 6,856 bases, 3,771 hits (the third-highest ever)—what did that really do for his people? Jackie once told him he should never be satisfied with the way things were. Well, he had helped desegregate the Sally League, the best thing he ever did. He had murmured his discontent from time to time. But as his fame had grown, perhaps he should have spoken out more loudly.

That was hard. He was a quiet sort: not a pusher and a shover, nor a glamour type. He would rather go fishing than party. In Atlanta, southern bigotry was still so strong that he could hardly bear to live there, but he tried to focus on the many fans for whom he was a star. His sense of dignity made him take all racial slights—a waitress ignoring black diners at table, a casual slur in conversation—as wounding and personal, but he said little openly. He waited until after retirement, in the late 1970s and 1980s, to start advising Atlanta's mayor, Andrew Young, supporting Jesse Jackson's affirmative-action plans and hammering away at the injustice he knew best: enduring racial inequality in baseball.

His people were still not equal in salaries, longevity in teams or promotion. Most obviously they were not made managers, or given any front-office jobs, because they were wrongly believed not to have the qualifications. So though he had no deep desire to manage, he immediately accepted the post of vice-president of player development for the Braves. For years, as he worked to bring on the young players coming up through the farm system, he was the only black executive in baseball. His very position spoke loud and clear.

So too did that magic 715, the number that broke Babe's record. In the weeks before, so tired of the abuse, he had often wondered if it was worth it, just to add one more to a total. In the next two years he added 40 more, and was not overtaken (and then controversially) until 2007. But yes, that 715 was vital—and his stronger self, who carefully kept the hate-filled letters so as not to forget, had known it was at the time. He had to smash the record for Jackie Robinson, for his people and himself. And he had to smash it for everybody who had ever told him that he had no business even being there.





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