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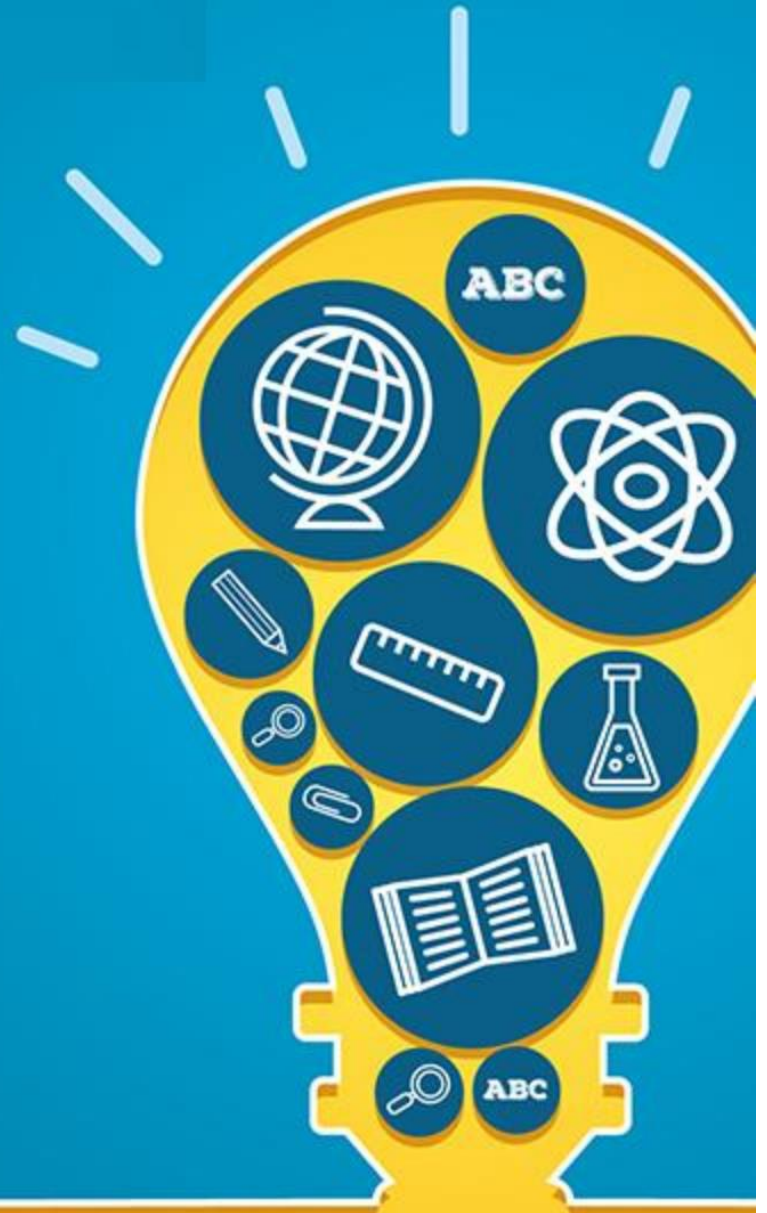
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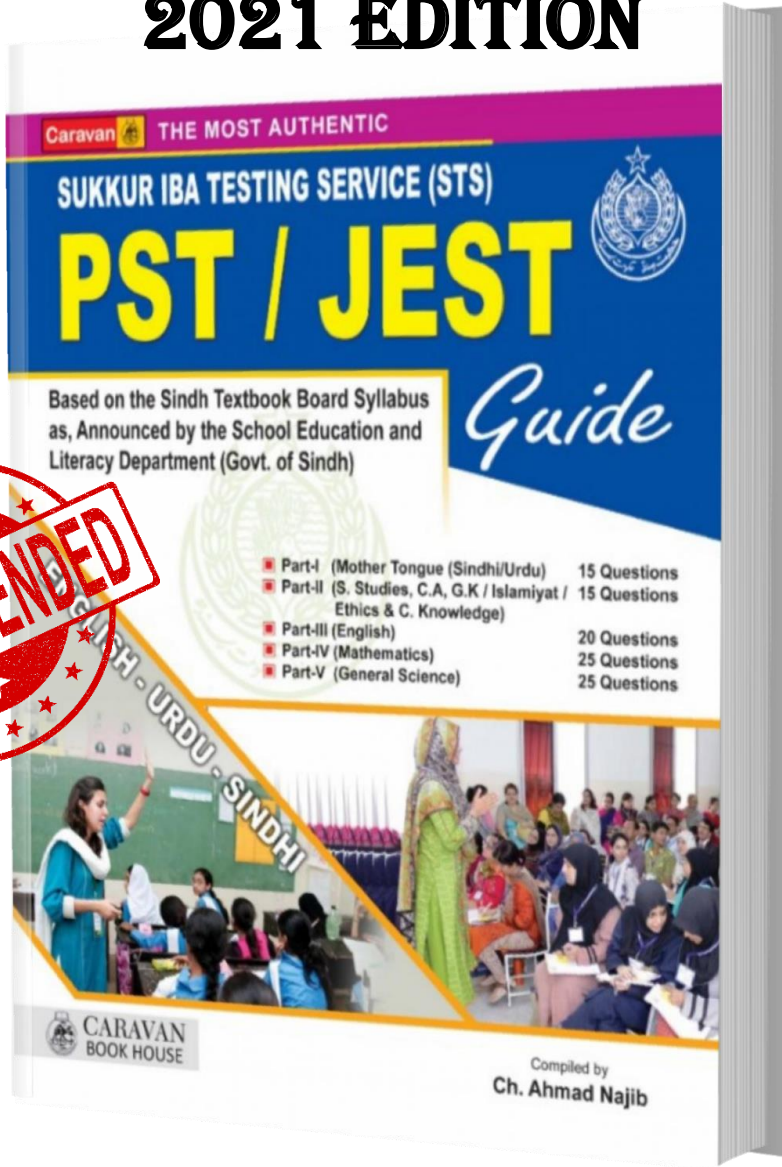
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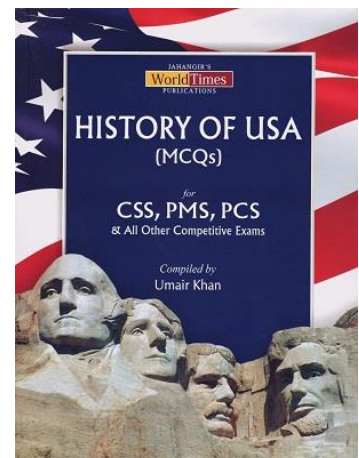
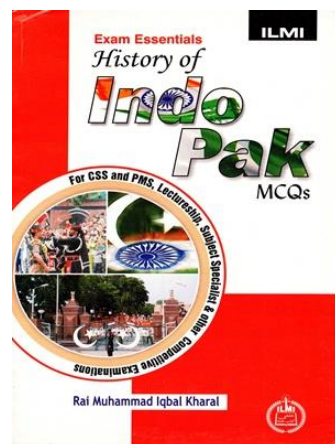
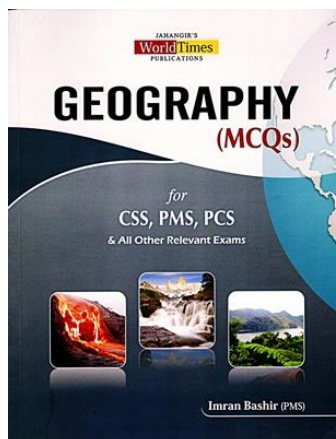
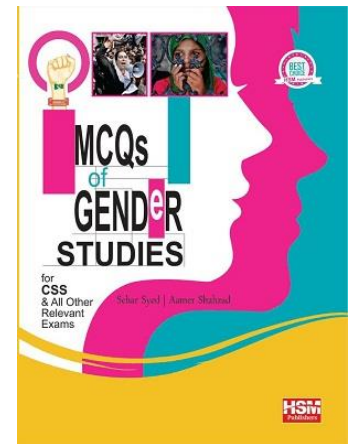
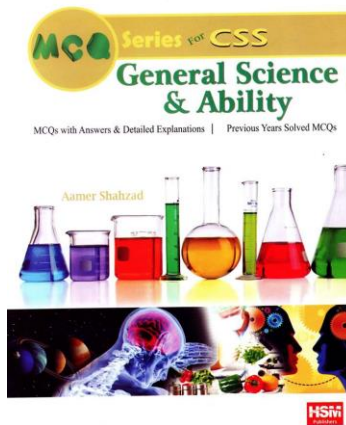
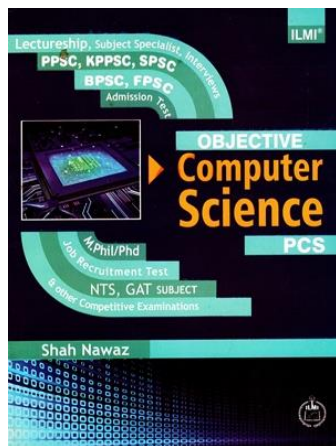
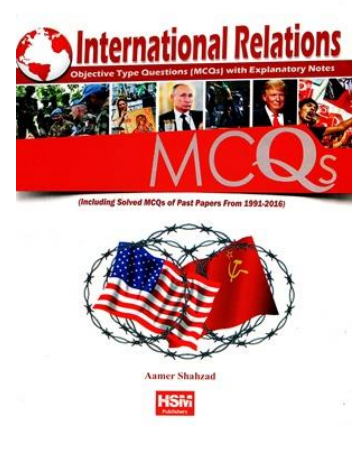
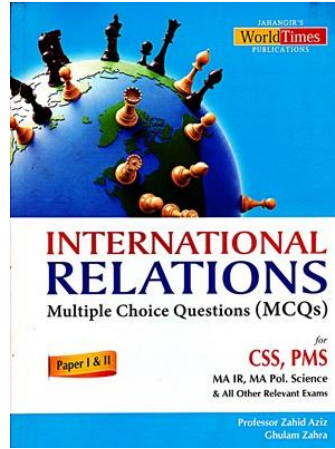
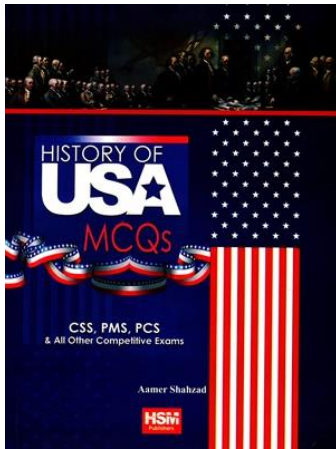
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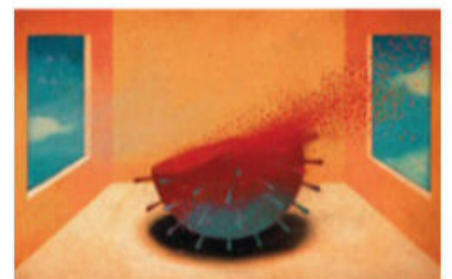
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The Economist

Volume 439 Number 9247

Published since September 1843 to take part in "a severe contest between intelligence, which presses forward, and an unworthy, timid ignorance obstructing our progress."

Editorial offices in London and also: Amsterdam, Beijing, Berlin, Brussels, Chicago, Dakar, Dallas, Dubai, Johannesburg, Madrid, Mexico City, Moscow, Mumbai, New Delhi, New York, Paris, San Francisco, São Paulo, Seoul, Shanghai, Singapore, Tokyo, Washington DC

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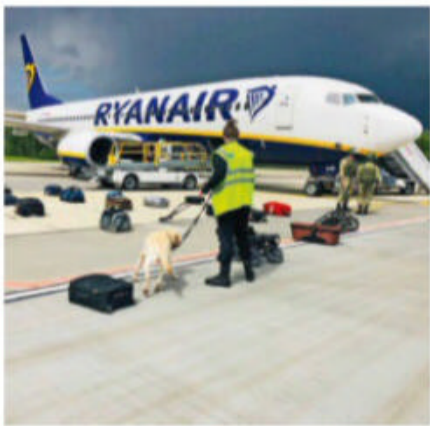
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Belarus **hijacked** a Ryanair plane flying from one EU country (Greece) to another (Lithuania) with more than 100 people on board. The plane was in Belarusian airspace. Citing a “bomb threat”, the authorities sent a fighter jet to make it land in Minsk, the Belarusian capital. They arrested two passengers: Roman Protasevich, an exiled journalist, and his girlfriend. Mr Protasevich had rallied opposition to Alexander Lukashenko, the despot who stole Belarus’s presidential election last year. No bomb was found. Russia applauded Mr Lukashenko’s boldness; the EU mulled sanctions on his isolated regime.

Switzerland said it was walking away from years of negotiations on a new treaty with the EU aimed at harmonising dozens of messy individual deals on trade, investment and the movement of people.

Police in **India** visited Twitter’s offices after it added a warning of misinformation to tweets posted by members of the ruling party. The tweets purported to detail plans drawn up by the opposition to discredit the government’s handling of the pandemic, but fact-checking organisations said the documents were fake.

America warned its citizens not to travel to **Japan**, after an increase in the number of covid-19 cases there. A survey suggested that 80% of Japanese believe the Olympic games, which are due to begin in Tokyo in July, should be postponed again or cancelled.

China responded angrily to an American call for more investigations into the origin

of the coronavirus. A foreign ministry spokesman accused America of smearing China and of ignoring the possibility that the virus originated in the United States.

Twenty-one competitors in a 100km **ultra-marathon** in a mountainous area of western China were killed by extreme weather, including hail.

The **Texas** legislature passed a bill that allows the state’s residents to carry a handgun without a licence. The law sets up an online course in gun safety for people unsure about how to handle weapons.

Israel and Hamas, the militant Islamist group that controls **Gaza**, stuck to a recently agreed ceasefire. To bolster the truce Antony Blinken, America’s secretary of state, held separate meetings with Benjamin Netanyahu, Israel’s prime minister, and Mahmoud Abbas, the president of the Palestinian Authority. He also went to Egypt and Jordan.

Republicans in the American Congress introduced legislation to beef up the government’s monitoring of **anti-Semitic attacks**. The conflict between Israel and Hamas has led to a “dangerous and drastic surge in anti-Jewish hate” in America, Britain and other countries, according to the Anti-Defamation League, a civil-rights group.

Iran’s Guardian Council disqualified most of the candidates who registered to run in the presidential election on June 18th. Only seven candidates, mostly hardline and pious, were allowed on the ballot. The conservative judiciary chief, Ebrahim Raisi, is the front-runner to succeed Hassan Rouhani, who is relatively moderate.

Iran reached a deal with the International Atomic Energy Agency to extend for a month an agreement that allows international monitors to inspect its **nuclear programme**. The head of the

agency said he was very concerned about Iran’s claim to be enriching uranium to a purity level of 60%, a level only countries that are making bombs attempt to reach.

Abubakar Shekau, the leader of Boko Haram, a jihadist group that enslaves girls, reportedly died in **Nigeria** after blowing himself up to avoid capture by rival jihadists. Mr Shekau has been declared dead five times before, only to resurface. But this time the reports appear to be true.

Army officers in **Mali** forced the president and prime minister to resign because they were upset about a reshuffling of the cabinet. The same officers carried out a coup last September.

After years of dodge and deferment, Jacob Zuma, a former president of **South Africa**, appeared in court. He faces 18 charges relating to an arms deal signed by the government in the late 1990s, including an allegation that he accepted a bribe from Thales, a French defence firm. Both he and the firm deny the charges.

In **Peru** 16 people were massacred in a village in a region known for cocaine production. The authorities blamed Marxist Shining Path militants, who killed tens of thousands of people in the 1980s and 1990s. The killings came two weeks ahead of a tense presidential run-off, which pits Keiko Fujimori, the daughter of a former president convicted of corruption, against Pedro Castillo, a left-wing activist.

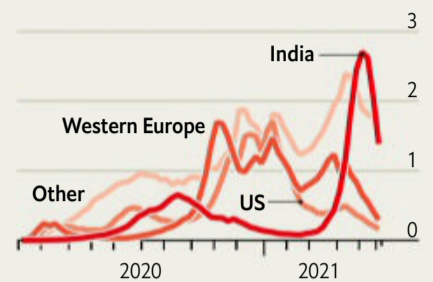
In **Mexico** the police chief of Sinaloa state, the name of which is associated with a powerful drug cartel, was murdered by bandits who fired 200 bullets into his car.

A soldier in **Canada** was charged with mutiny for the first time in decades. The reservist is accused of trying to persuade other soldiers to join him to disrupt the distribution of covid-19 vaccines.

Coronavirus briefs

To 6am GMT May 27th 2021

Weekly confirmed cases by area, m



Vaccination doses

	Total '000	% of adults with	
		1st dose	2nd
Israel	10,568	98	92
UAE	12,416	95	60
Bhutan	483	95	0
Mongolia	2,730	90	44
Malta	491	87	50
Maldives	465	75	39
Britain	61,995	74	45
Chile	17,794	70	55
Bahrain	1,621	68	56
Canada	21,638	67	6
United States	287,789	66	50

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

The number of officially recorded cases in **India** continued to fall, on one day dropping below 200,000 for the first time in weeks.

Germany banned most visitors from **Britain** because of the spreading Indian variant of covid-19 in that country. **French officials** said people entering from Britain would have to quarantine, but stopped short of an outright ban. Research in Britain, meanwhile, found that **two doses** of either the AstraZeneca or Pfizer vaccine provide good protection against the Indian variant.

An outbreak of the variant in **Melbourne** led to a new lockdown in the Australian state of Victoria, a disappointment for the city, which last year had one of the world’s longest lockdowns. Vaccination rates in Australia remain very low.

Argentina entered a nine-day lockdown. Cases are surging amid a slow take-up of the jab.

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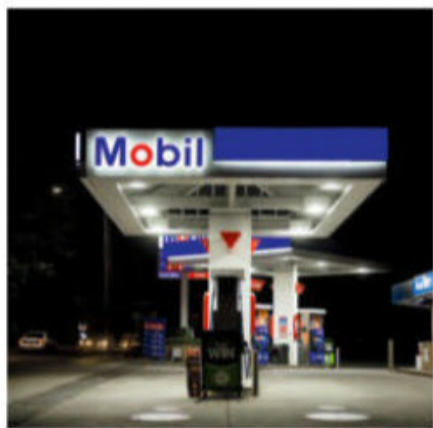
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At least two directors nominated by Engine No. 1, a small, environmentally minded hedge fund, were elected by shareholders to the board of **ExxonMobil**. It is the most significant victory yet in the push by activist investors to force big oil companies to do more on climate change.

Environmental legacy

In a ruling with ramifications for the whole oil industry, a Dutch court sided with green campaigners and found that **Shell** was in part responsible for climate change, ordering it to cut its carbon emissions by 45% by 2030 from 2019 levels. Shell currently aims to lower emissions by 20% in 2030 and 45% in 2035 from 2016 levels. It is to appeal against the verdict.

Activist investors have increased their clout during this year's shareholders' meetings in a wide range of industries. This week **Aston Martin** faced down a mini revolt, when 18% of shareholders opposed its pay policy for directors and 17% went against the re-election of Lawrence Stroll as chairman. Mr Stroll is credited with rescuing the struggling sports-car maker with an injection of capital in 2020.

Germany's two biggest property companies, **Vonovia** and **Deutsche Wohnen**, agreed to merge, creating Europe's largest residential real-estate group. The deal is controversial. Rents have soared in Berlin, producing a political backlash. The firms gave assurances that they would limit rent increases to 1% a year in Berlin for the next three years and provide flats for young families at below market rents.

Singapore's first-quarter GDP figure was revised, revealing a much faster expansion than had been thought. The economy grew by 3.1% compared with the previous three months; manufacturing output was up by 10.8%.

Joe Biden confirmed that he would not impose sanctions on the corporation that built the **Nord Stream 2** pipeline, which will transport gas from Russia to Germany. Critics contend the project's main purpose is to increase European reliance on Russian energy, but Mr Biden said that sanctions would be counterproductive, given that the pipeline is almost complete. The decision is a win for the German government, and a blow to Ukraine, which will lose income from transit fees for Russian gas.

Turkey's president sacked a deputy governor at the country's central bank, the third defenestration of a senior official within two months. Recep Tayyip Erdogan has whittled away at the central bank's independence over the years in his attempt to suppress interest rates, replacing the governor with a supporter in March. Since then the lira has slid by 15%.

Uber said it would allow its drivers in Britain to join a union, the first time that the ride-hailing company has given official recognition to a union in any country. In February Britain's Supreme Court ruled that Uber must extend employee rights, such as a minimum wage, to its drivers.

The fallout from the collapse of Greensill Capital, a financing firm, spread to Italy, where the central bank pushed **Aigis Banca**, a specialist lender based in Milan, into liquidation. A basket of Aigis's assets, were sold to another Italian bank for €1 (\$1.20).

The city of Washington, DC, sued **Amazon**, claiming that the retailer forced third-party sellers to agree not to sell their wares at lower prices anywhere else on the internet. Amazon, which also faces investigations in Europe and India, said it would fight the lawsuit. Meanwhile, Amazon secured its deal to buy MGM, paying \$8.45bn for the film studio.

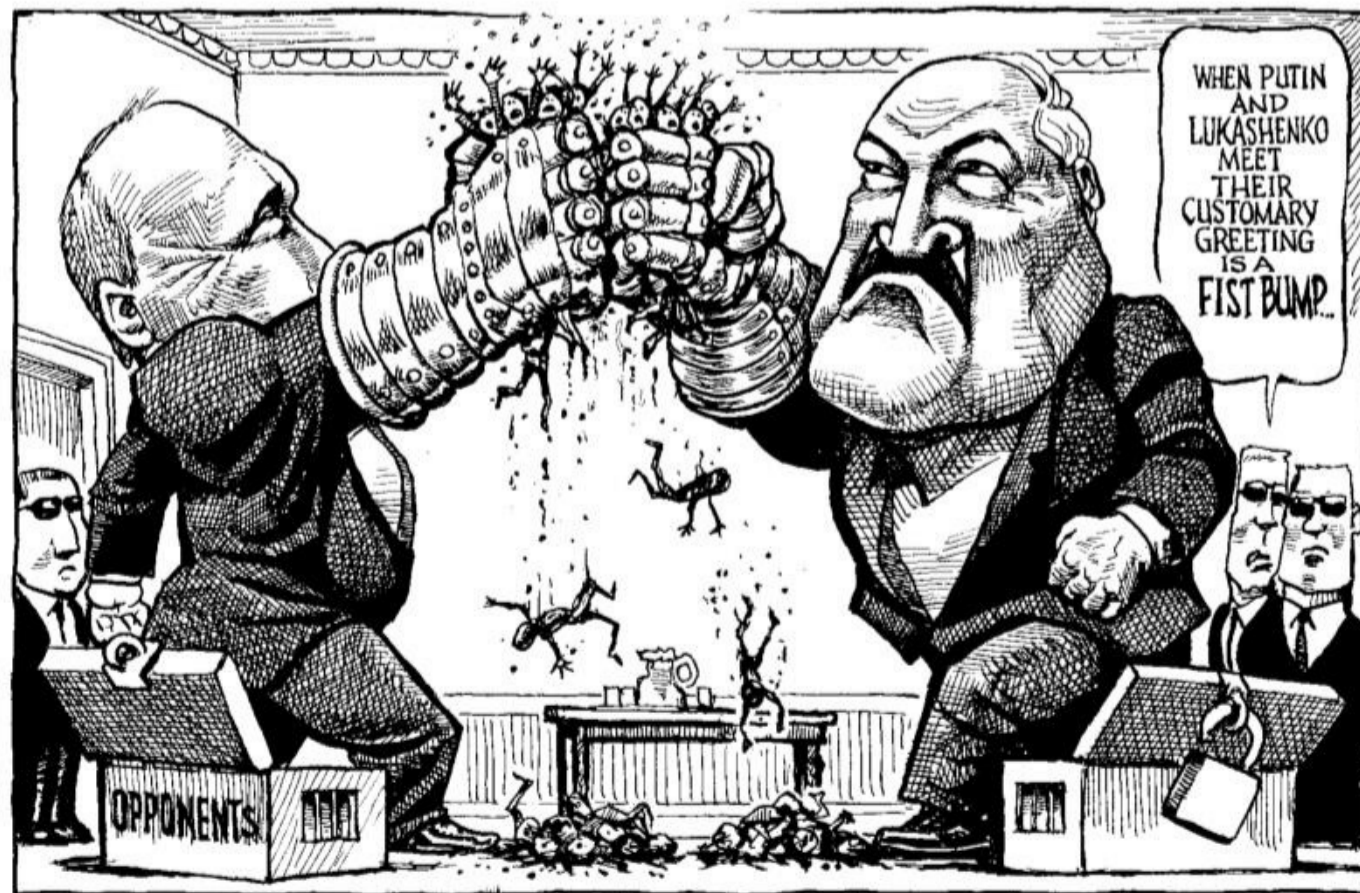
WhatsApp, a popular encrypted-messaging service owned by Facebook, said it was suing the government of India over new rules requiring it to be able to trace messages sent on

its platform. WhatsApp has long used privacy as a selling-point; it the most popular messaging-app in India.

The first private licence to operate mobile services in **Ethiopia** was awarded to a consortium that includes Vodafone. The bid for a second licence from MTN, a South African company, was rejected as too low. The liberalisation of Ethiopia's telecoms is a proxy in the tech war between America and China. The winning bid is supported by Washington through low-cost foreign-aid loans; MTN's proposal was backed in part by a Chinese state investor.

No passport required

Following an aborted launch in December, **Virgin Galactic** conducted a successful test flight of its vss *Unity* spacecraft, which touched down in New Mexico after reaching an altitude of 55.45 miles (89.2km). The company hopes to put paying passengers into orbit next year. Blue Origin, a space-tourism venture backed by Jeff Bezos, will send its first paying passenger into space on July 20th. The current bid for the tourist seat to be occupied by the lucky (and brave) person on that mission is \$2.8m.



Two states or one?

The peace process has become an obstacle to progress

HAVE MORE time and effort ever been devoted to peace to so little effect? America began overseeing talks between the Israelis and Palestinians three decades ago. But the Holy Land remains contested by two peoples who cannot bring themselves to live together. The fighting in May that left 242 Palestinians and ten Israelis dead accomplished nothing except to clear the field for the next round of fighting.

The peace process set up in the Oslo accords in 1993 aims to create two states that agree to disagree—using land swaps, security guarantees, a deal to share Jerusalem and a limited “right of return” for Palestinians. Israel’s prize was to be a thriving democracy and a sanctuary for Jews; for Palestinians it was the promise of self-rule. At times, peace has been tantalisingly close, only to recede again amid mutual recrimination.

Today, however, instead of being a pathway to peace, the two-state “process” is barring the route. Everyone pretends that peace is still on the agenda when, in reality, it is not (see Middle East & Africa section). That is a formula for strife. Almost everything that matters can be deferred with the promise that, one day, it will be resolved in a deal that is perpetually over the horizon. It is also a formula that, by default, leads to a single state.

The idea that the two-state framework is harmful will not come as news to the Palestinians. Under it, the vision of a viable, contiguous, sovereign Palestine has receded. Palestinian territory in the West Bank is an archipelago in an expanding sea of Israeli settlements that are illegal under international law. Gaza is a solitary island, cut off by an Israeli and Egyptian blockade. The Palestinian Authority was supposed to be a government in waiting. Young Palestinians look on it as the agent of Israel’s occupation, even as they laud Hamas, the violent Islamist group that rules Gaza, for standing up to Israel.

In place of the stagnant two-state effort, the new Palestinian vision is to demand individual rights in one state. Those in Gaza and the West Bank resent needing Israel’s permission (often withheld) to travel to see their families. The recent fighting was fuelled by a dispute over property in East Jerusalem, where most Palestinians are mere “residents”. Even Israeli Arabs complain of inequality and rose up during the fighting in Gaza.

That leaves Israel in a quandary. It has thrived under Oslo. GDP per head has grown by over half in the past 30 years. Its Iron Dome missile-defence system largely shields it from Hamas’s attacks. A divided, weak Palestinian leadership suits Binyamin Netanyahu, the prime minister, who shows little interest in the Palestinians. And it’s not just him: the conflict did not feature much in any of the four elections Israel has held since 2019.

This cannot last. The Oslo figleaf lets Israel claim that the occupation will be undone in a final deal. As the interim power in charge, it has no duty to extend full rights to the West Bank. But 54 years after the six-day war, the idea of a temporary occupation rings increasingly hollow.

Without hope of an agreement, Israel’s critics have begun to talk of a “one-state reality”. This challenges Israel: as the Holy Land has as many Jews as Palestinians, it cannot remain both

Jewish and democratic while permanently controlling all of that territory. Many critics of Israeli policy, including some liberal Jews, now compare the Palestinians’ treatment to apartheid.

The Palestinian demand for rights is resonating abroad, not least in the halls of America’s Congress. By allying Israel to the Republican Party, Mr Netanyahu has helped make the Palestinians part of America’s culture wars. Progressives in the Democratic Party have started to declare that Palestinian lives matter.

America is Israel’s most important ally. True, American aid matters less than it did and Israel now produces most of its own advanced weapons. It has relations with more countries, including its Arab neighbours through the Abraham accords. Yet if it drifts away from Europe and America and towards countries like Russia, China and populist India, it will be a blow to Israel as a Western, liberal and democratic ideal.

More important, Mr Netanyahu’s “anti-solutionism” leaves his country less able than ever to navigate a future with the Palestinians. His embrace of the Jewish far right makes eruptions more likely even as it fires up militant Palestinians—witness the recent communal violence in Israeli cities. The wall that seals off Israel from the West Bank has led to deeper distrust between Arabs and Jews. The settlements, once thought negotiable, have become permanent obstacles to peace.

The status quo has served Israel well but is not sustainable. Sooner or later there will be a reckoning that requires a new formula for living next to the Palestinians. Adhering to Oslo while undermining it in practice feeds the reality of one state—because it makes two states harder to realise.

Instead of imposing peace in one top-down stroke of diplomatic brilliance, a more realistic aim would be to build it patiently from the bottom up. The guiding principle should be to focus on the human and civil rights of Palestinians. Israel will not grant Palestinians full rights tomorrow. But it can make its Arab citizens more equal by devoting resources to their communities. It could make the administration of Jerusalem more inclusive, so that tiffs over fencing do not escalate into war. It must take more responsibility for the suffering in the West Bank and Gaza—and work harder to alleviate it.

A focus on rights also makes Palestinian leaders more accountable. They cannot easily demand rights from Israel that they deny their own people. Mahmoud Abbas is in the 17th year of a four-year term as president. His Fatah party is sclerotic. Hamas tramples the rights of its people, including women and minorities. Better Palestinian leaders are a prerequisite for peace.

Abandoning Oslo carries risks, obviously. Unbound, Israeli settlers might push farther into Palestinian territory. Hamas, which wants a single state in which Palestinians would outweigh Jews, might redouble its resistance. But today’s path is even riskier.

Peace always starts by acknowledging reality. It takes root by improving lives and renewing politics. That can flourish into something new. Then, one day, the parties can start talking again about a deal, whether of one state or two. ■



Corporate investment

Innovation nations

Firms are rediscovering their love for investment

AS THE RICH world reopens, the contours of the post-pandemic economy are becoming clear. The latest trend is a global surge in capital spending (see Finance section). Forecasters reckon that overall real investment worldwide will soon be a fifth higher than it was before the pandemic. America's business investment is rising at an annual rate of 15%. By 2022 companies in the S&P 500 are forecast to be spending over a tenth more on factories, technology, R&D and the like. Barely a day goes by without a large firm boasting about how much it plans to splurge. AT&T says it will throw \$24bn a year at its networks. Sony is piling \$18bn into an expansion push. Semiconductor firms are engaged in one of the biggest capital-spending (or capex) sprees in history.

That is both a sharp change and an enormously significant one. Sharp, because before covid-19 managers embraced capex austerity. America's business investment had stagnated relative to GDP for several decades. Britain's was 15% lower than in the late 1990s. Even as business profits soared, firms devoted a smaller share of their cashflows to capex and R&D, and more to share buybacks and dividends. Significant, because investment in new technologies and business practices is the secret sauce behind higher living standards. Weak capital spending contributed to the rich world's sluggish productivity and growth in the 2010s, and to the gnawing sense that capitalism was misfiring.

Now, though, all that is changing. Fiscal stimulus has put money in people's pockets. In America real disposable income per person is 27% higher than it was in February 2020. And as economies reopen, people are in the mood to spend. Companies can thus be more confident there will be demand for their wares

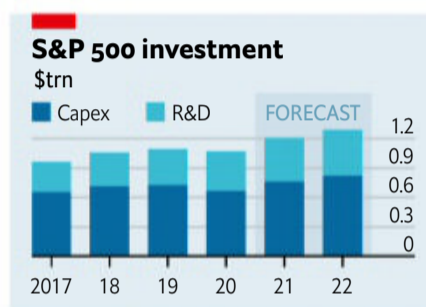
in the next few years—as good an incentive as any to expand capacity. Some firms, especially in consumer-facing industries, are low on inventory and are frantically trying to catch up.

Yet capital spending is rising not just because the economic cycle is on the up. Firms are also adjusting to permanent pandemic-induced shifts, from an emerging norm of “hybrid work” to greater online shopping. The big tech firms, whose products are so important to this shift, have led the investment charge. In 2020 they accounted for a third of total R&D spending in the S&P 500; this year they are boosting capex by 30% relative to 2019.

Other companies now recognise that they need to pull up their socks. High-street retailers are at last investing heavily in online offerings to compete with Amazon. Restaurants continue to improve their dine-at-home service even as dine-in reopens, allowing them to squeeze more sales out of preparing food. Consultancies are finding ways to let their staff remain connected when they are not in the office. Growth in global shipments of computers for companies will be

even faster this year than last. All this promises a world in which people get more done in less time.

Firms in some industries still play by the rules of the 2010s. Mining companies seem cautious about shelling out in order to relieve supply bottlenecks in commodity markets. Big hotel chains appear to have no plans to install rainforest showers in every room. And it remains to be seen whether the post-pandemic norm will be one of structurally higher investment spending, or whether firms slip back into their old ways. For now, though, stand back and appreciate the global capex surge. It promises a more dynamic form of capitalism. ■



The euro zone

Take one for the team

To avoid a two-speed Europe, Germany must learn to live with a little inflation

INFLATION IN GERMANY exceeded 2% in April. If the Bundesbank's latest forecasts prove right, it could soon reach 4% for the first time in nearly 30 years. Inflation angst is rising among the country's monetary hawks. The exigencies of the pandemic muted German grumbling about the European Central Bank's ultra-loose monetary policy. But as inflation rises, so will reflexive German demands that the bank should taper its bond-buying.

Such clamouring would be misguided. Europe's recovery is more subdued than America's, making the odds even better that the inflation spike will prove temporary. And the interests of the weaker members of the currency union, still crawling their way back to health, should come first.

The hyperinflation of the 1920s etched inflation-phobia deep into the German psyche. After the second world war the Bundesbank earned a fearsome reputation by being the first to tame the

inflationary beast. In the early 2000s, shortly after the birth of the euro, Germany restrained wage costs and the southern European economies lost competitiveness against it. As the southerners recovered from their debt crises, they narrowed the gap by clamping down on their own labour costs, while Germany did too little to adjust. That set the euro zone on a demand-deficient, deflationary path. The area's economy has never fully recovered, even as the ECB has used up most of its ammunition.

That lost decade is one reason why spiralling wages and prices in Europe are vanishingly unlikely, even as overheating is a possibility in America. What is more, the hit from the pandemic in Europe has been worse. Output in the euro zone fell further than in America last year. Despite this, its fiscal stimulus looks stingy compared with the Biden administration's largesse. The EU's new €750bn (\$919bn) recovery fund will take years to be dis- ▶▶

► bursed fully. Investors expect inflation in five years' time to languish below the ECB's target of "close to, but below 2%". Expectations in America, by contrast, are above 2%.

Further reassurance can be gained from peering into the mechanics of Germany's inflation spike. As in America, it reflects some transitory global factors, including the oil-price collapse last spring which depressed the base used to calculate the annual rate. Strip out food and energy prices, and inflation in Germany was only about 1% in April. Some temporary country-specific issues are also in play. A carbon charge has pushed up prices, and an emergency cut to value-added taxes last year will arithmetically boost inflation later this year. Look along the supply chain and you might take fright at Germany's producer-price inflation, of more than 5% in April. But this should ease as factories and suppliers respond to a surge in orders.

Perhaps the biggest reason why Germany should tolerate a period of above-target inflation is that the euro area's health depends on it. Activity is resuming across the zone, as vaccines are administered and lockdown restrictions lifted (see Finance section). Germany has less lost ground to make up than most. It suf-

fered a deep downturn last year, with the economy shrinking by 5%, but it fared far better than France, Italy and Spain, where output fell by nearly twice as much. Unemployment in Germany remains low, at 4.5%. Its reliance on manufacturing and exports has been a boon. Other countries, by contrast, must pray that spending on tourism, retail and hospitality returns to the levels of the old days. Goldman Sachs, a bank, reckons that Spain and Italy have twice as much economic slack as Germany.

The ECB sets monetary policy for the currency union as a whole, not its largest member alone. And so Germany must seek to keep its economy humming along while the others catch up and the stimulus is withdrawn. That is the price of being one of the strongest members of a currency union. After a lost decade, the euro zone has learned from some of the mistakes of the past crisis. The pursuit of balanced budgets and austerity has been abandoned for the time being. The EU is on the verge of issuing common debt to finance its recovery fund. Both shifts were possible because of a change of thinking in Berlin. A recognition that the German economy must run hot is the missing link in restoring confidence throughout the euro zone. ■

Ventilation

Fresh thinking about fresh air

It is time to clean up the air in buildings

IN 1842 EDWIN CHADWICK, a British social reformer, published his "Report on the Sanitary Condition of the Labouring Population". By documenting evidence of social and geographic inequalities in health, Chadwick showed that poor sanitation was associated with poor health. The report eventually led British cities to organise clean water supplies and to centralise their sewage systems, in turn reducing the prevalence of infectious diseases, in particular cholera. Similar reforms around the world in the 20th century tackled food safety and outdoor-air pollution. Now a new public-health priority is becoming apparent: making indoor air cleaner.

Take schools. They are "chronically under-ventilated", according to the *Lancet* covid-19 commission. A study of 100 American classrooms found 87 with worryingly low ventilation rates. Across Denmark, France, Italy, Norway and Sweden, researchers found that indoor-air quality in 66% of classrooms fell short of healthy standards. In America nearly one child in 13 has asthma—a condition triggered by allergens often found in schools. Outdoor-air pollution can penetrate inside buildings—childhood exposure can affect neurodevelopment and academic performance, and cause cancer.

The problem extends well beyond classrooms. Many people spend more than 90% of their time indoors. Researchers have linked under-ventilated spaces in buildings to a range of ailments—headaches, fatigue, shortness of breath, coughs, dizziness, nausea, and irritation of eye, nose, throat and skin. Poor ventilation has been blamed for increased absences from work, decreased productivity and asthma.

The pandemic has brought a new urgency to the matter. The virus which causes covid-19 spreads between people less by close contact and infected surfaces and more by hitching a ride

on aerosol particles from people's lungs that can linger in the air of an ill-ventilated room (see Science section).

Indoor-air quality has attracted little government attention. But achieving clean, pathogen-free air in buildings and indoor public spaces is possible. The first step is to give people more information on how well-ventilated their air is. Carbon-dioxide concentrations are a good proxy for ventilation, and cheap sensors to detect this gas in rooms could provide occupants with useful data on when to open windows or upgrade their air-conditioning systems. National indoor-air-quality standards would help. One way to enforce them could be through ventilation certificates for buildings, similar to food-hygiene certificates that already exist for restaurants.

The bill for all this need not be huge. A recent study found that raising the standard of ventilation in all American elementary and secondary schools to the minimum level would cost less than 0.1% of the country's typical public spending on education. President Joe Biden's American Rescue Plan assigns \$123bn to improving school infrastructure and mentions ventilation

as a priority. Other countries should follow suit.

More investment would be money well spent. Better indoor air boosts academic performance—maths and reading scores go up, and pupils are measurably more attentive in class. Office-workers benefit, too. Researchers have found the cognitive scores of people in well-ventilated offices are 61% higher than those of workers in conventional office set-ups.

Ventilation is the forgotten part of the agenda for improved public health. Chadwick's report on sanitation lifted people's expectation that the water coming out of their taps would be clean. Covid-19 should lead policymakers to ensure, belatedly, that the same is true for the air in people's buildings. ■



Mexico

The false messiah

Andrés Manuel López Obrador pursues ruinous policies by improper means

IN A WORLD plagued by authoritarian populists, Mexico's president has somehow escaped the limelight. Liberals furiously condemn the erosion of democratic norms under Hungary's Viktor Orbán, India's Narendra Modi and Brazil's Jair Bolsonaro, but barely notice Andrés Manuel López Obrador. This is partly because he lacks some of the vices of his populist peers. He does not deride gay people, bash Muslims or spur his supporters to torch the Amazon. To his credit, he speaks out loudly and often for Mexico's have-nots, and he is not personally corrupt. Nonetheless, he is a danger to Mexican democracy.

Mr López Obrador divides Mexicans into two groups: "the people", by which he means those who support him; and the elite, whom he denounces, often by name, as crooks and traitors who are to blame for all Mexico's problems. He says he is building a more authentic democracy. It is an odd creature. He calls a lot of votes, but not always on topics that are best resolved by voting. For example, when legal objections are raised to one of his pet projects—moving an airport, building a pipeline, blocking a factory—he calls a referendum. He picks a small electorate that he knows will side with him. When it does, he declares that the people have spoken. He has even called for a national referendum on whether to prosecute five of the six living ex-presidents of Mexico for corruption. As a stunt to remind voters of the shortcomings of previous regimes, it is ingenious. It is also a mockery of the rule of law.

The president's scorn for rules is one reason the elections on June 6th matter (see Briefing). He is not on the ballot; his single six-year term expires in 2024. But the national legislature is up for grabs, as are 15 of 32 governorships, most state assemblies and thousands of local posts.

Voters have a chance to rein in their president by rejecting his party, Morena. It is not clear that they will. Most are dissatisfied with the way the country is being run, but 61% approve of Mr López Obrador himself. Many feel that he cares about ordinary people, even if he has not materially improved their lives. The opposition parties have failed to offer a coherent alternative. Morena is slipping in the polls, but may retain its majority in the lower house, with the help of its allies. The more levers he controls, the further Mr López Obrador can pursue his plan to transform Mexico.

He has done good things, such as bumping up pensions and subsidising apprenticeships for the young. Though a leftist, he has kept spending and debt under control, so Mexico's credit rating remains tolerably firm. But he suffers from what Moisés Naím, a Venezuelan journalist, calls "ideological necrophilia"—a love of ideas that have been tried and proved not to work.

He has fond memories of the 1970s, when a government-owned oil monopoly spread largesse around his home state. He is trying to recreate something similar, by all but banning private investment in hydrocarbons and forcing the grid to buy power from state sources first, no matter how costly and filthy they are. He likes railways, so he is ploughing \$7bn into a diesel-burning boondoggle in his home region. Frustrated with officials who fuss about rules and putting contracts out to tender, he

enlists the army to build his railway, run ports and fight crime. In other countries, inviting the men with guns to handle huge sums of public money with scant supervision has proved catastrophic, as any Egyptian or Pakistani could warn him. But Mr López Obrador is notorious for not listening to advice. His catchphrase in cabinet meetings is "Cállate!" (Shut up).

His disdain for expertise has made government less competent. His tree-planting scheme has encouraged farmers to chop down old trees so as to be paid to plant new ones. His policy of "hugs, not bullets" for gangsters has failed to reduce a stratospheric murder rate. For all his railing against graft, Mexicans report as many demands for bribes from officials as before.

He was woefully slow to respond to covid-19 and spent far too little on cushioning its economic effects. According to *The Economist's* estimates, Mexico has suffered 477,000 excess deaths from the pandemic, one of the worst rates in the world; and its GDP shrank by 8.5% last year. The country should be poised for galloping growth. Multinationals are eager to diversify their supply chains away from China, and Mexico is a manufacturing hub next to the United States, which is entering a stimulus-stoked post-covid boom. Yet investors are wary.

They fear the uncertainty of rule by presidential whimsy. Mr López Obrador is undermining checks on his power. He leans on advertisers not to support fault-finding media. He cuts the budgets of watchdogs, or stuffs them with his supporters. Last week he said he would replace the central-bank governor with someone who favours "a moral economy". He has threatened the body that runs elections.

The next three years will determine the depth and duration of the damage he does to Mexico and its democracy. He is barred from seeking re-election, but is trying illegally to extend the term of a friendly supreme-court judge. Critics fear he wants to set a precedent for himself. Mexico's institutions are strong, but may buckle under sustained assault by a zealot with popular support. The country escaped de facto one-party rule in 2000. Given the risk, voters on June 6th should support whichever opposition party is best placed to win, wherever they live. The opposition parties should work together to restrain the president.

Learn from your mistakes

They should learn from him, too. He is popular partly because they did a poor job of helping those left behind during the long boom that followed economic liberalisation in the 1980s; and also because much of the ruling class really is corrupt. Mr López Obrador's ad hoc, lawless approach has not made Mexico cleaner, but he has highlighted the need for a clean-up.

The United States needs to pay attention. Donald Trump did not care about Mexican democracy. President Joe Biden should make clear that he does. He must be tactful: Mexicans are understandably allergic to being pushed around by their big neighbour. But America ought not to turn a blind eye to creeping authoritarianism in its backyard. As well as sending vaccines, unconditionally, Mr Biden should send quiet warnings. ■





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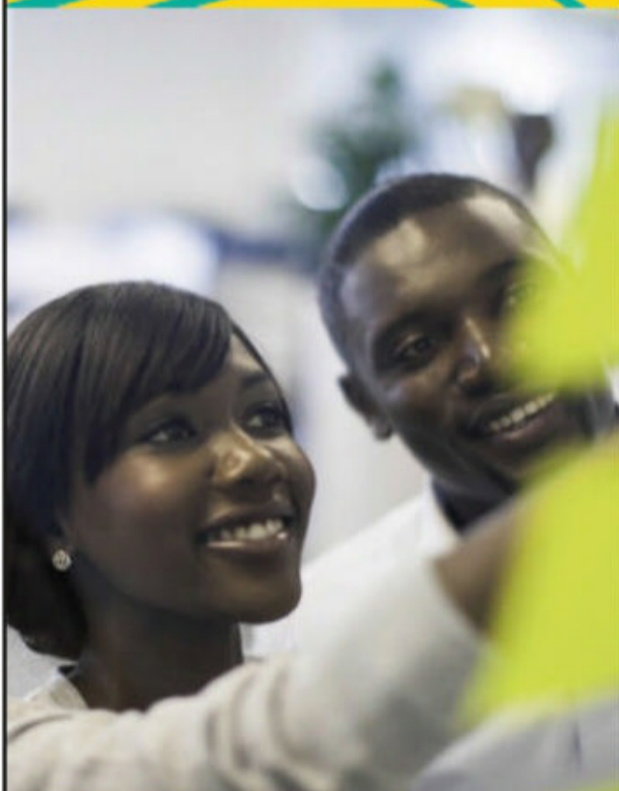
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E-taxes

Mike Godwin's law of Nazi analogies states that as an online discussion grows longer, the probability of a comparison involving Nazis or Hitler approaches one. A corollary adage might be that as an economic discussion grows longer, the probability of creating a new form of taxation approaches one. Your leader on the rise of e-money violated this proper economic discussion by creating no new tax ("The digital currencies that matter", May 8th). In fact, tax got no mention at all.

You summed up well the positive aspects of central-bank digital currencies (CBDCs). Yet government-issued fiat currencies are deeply entwined with tax (fiat currencies are arguably just tax credits). CBDCs provide new tax-collection powers. Complex taxation algorithms can be applied to any CBDC transaction in real time. Once people realise the power of CBDC systems to support various taxation initiatives at low transaction costs, we should expect avalanches of proposals: town taxes, child-noise taxes, sugar taxes, alcohol-consumption taxes, foreign-visitor taxes, and so on.

In 2016 I gave an example of such a CBDC-based tax to the House of Lords. Given widespread sentiment that London is too overweening, imagine a populist redistribution tax whereby transaction taxes rise in wealthy districts. To bring about levelling up, politicians increase the taxation rate as you approach Trafalgar Square, up to 99.9% beside Nelson's Column, or spend your money in the Outer Hebrides at 0.1% tax. Technology cuts two ways. PROFESSOR MICHAEL MAINELLI
Executive chairman
Z/Yen Group
London

Some countries, such as Australia, have already digitalised their currency independently of their central bank. Since 2013 most Australians have opened cost-free myGov accounts that can be operated

from their mobile phones. The government also issues cost-free debit cards linked to their myGov to make payments. As a result many people on welfare no longer need a bank account.

SHANN TURNBULL

Principal

International Institute for Self-governance
Sydney

How worrying to read your article on govcoins in the same week that an important oil pipeline was shut by a cyber-attack. One cannot even fathom the effect of such an attack on a digital currency issued by a central bank, an event that would immediately freeze all financial activity, from corporate transactions to buying groceries.

PETER PRASTHOFER

The Woodlands, Texas

Your special report on banking mentioned whaling "sloops" that sailed out of Nantucket (May 8th). A sloop is a vessel designed for speed. Whaling vessels of the 1800s, especially from Nantucket, were more likely to be brigs, brigantines, or ship-rigged with multiple masts and wide hulls to hold supplies and whale oil for a three- or four-year voyage. Only the Native American tribes of the Pacific north-west or Alaska would venture out in a narrow hull to go whaling, which those "coarse" sailors from New England would think to be foolhardy.

GREGORY SANIAL

Grand Rapids, Michigan

Technology and China

You reported on the important role of the American government's Bureau of Industry and Security in writing the rules on trade in technology with China ("Assuming the position", May 8th). It is misguided, however, to suggest that the appointment of an "outsider" to lead the BIS would indicate a lack of a "real plan" on China. The agency is responsible for ensuring that sensitive technologies do not reach adversaries that would use them for harm. That is an increas-

ingly challenging job, especially as China has blurred the line between the private sector, government and the army.

The Trump administration added some 330 Chinese government-aligned companies to the Entity List. The Biden administration has added another seven to that blacklist, signalling a continuation of the policy against the Chinese Communist Party's military-civil fusion strategy. The true test of whether this administration has a "real plan" on China will be whether Joe Biden's nominee understands its ambitions to steal and exploit American-made technology and is willing to put the United States' long-term national-security interests ahead of short-term corporate profits. It is not relevant whether the nominee has a legal credential, is an outsider, or is a Washington veteran.

The appointment should be made on substance, capability and an understanding of the issues and the stakes—not whether an individual fits the mould of a bureaucrat.

ROSLYN LAYTON

Co-founder

China Tech Threat

Naples, Florida

Jackson, Wyoming

Lexington's column (May 15th) on Liz Cheney's political demise was excellent, and I share Ms Cheney's concerns about Donald Trump's detrimental impact on democracy. However, as a proud Wyomingite, I still resent Ms Cheney for committing one cardinal sin against the people of Wyoming: she moved to Jackson.

You have to understand Wyoming's small-scale geopolitics to understand this. As a former governor said, the state is just one small town with long streets between neighbours. Most of it is rural, desolate and windy. Small communities rely on drilling, mining and ranching to survive. We are interconnected at the State Fair, county rodeos and high-school sporting events. We all know someone from Cheyenne, Cody, Gillette,

Laramie and Sheridan, as well as the even smaller towns in between.

The one exception is Jackson. Jackson is a beautiful, expensive playground for the coastal elite. Jackson is insular. Jackson does not interact with the economy in the rest of the state. Most Wyomingites don't identify with Jackson. Its elitism is foreign to us. We spend our vacations in the Wind River and Big Horn mountain ranges.

I still question why Ms Cheney decided to move there. When she was elected to Congress she was characterised as a carpetbagger. Yet, in the words of my father, you could be born in Jackson and still be a carpetbagger. She could have moved to Cody or Sheridan.

I anticipate that Ms Cheney's popularity will keep declining in Wyoming; she will continue to be portrayed as an east-coast elitist who is out of touch with the state. I laud her courage in opposing Trumpism. I still can't forgive her for moving to Jackson.

JASON DESPAIN

Casper, Wyoming

Slapshot

The casual reference to "America's National Hockey League" in "The puck stops here" (May 15th) must have caused your Canadian readers to choke on their Labatt beer. The NHL was founded in Canada and the nation referenced in the name is Canada. Sadly, however, Canadians have long lost control of their national sport, with 24 of the 31 NHL teams located in America.

Adding insult to injury, many of the newer teams are located in southern cities such as Tampa, Las Vegas or Anaheim that rarely, if ever, see natural ice.

ALISTAIR BRYDEN

Comox, Canada

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The puritan from Tepetitán

TEPETITÁN

Few outsiders have noticed how radical Mexico's president is. Elections on June 6th will determine how deeply—and ruinously—he can transform his country

THE PLAQUE beneath a bust of President Andrés Manuel López Obrador in his home town proclaims him “the face of hope” and a “tireless fighter for the rights of Mexicans”. That is certainly how the people there see him.

“Andrés Manuel is different,” says Heriberto Priego Colomé, a pensioner sitting in the shade in Tepetitán, a settlement of 2,000 souls in Tabasco state in southern Mexico. “He’s normal. He’s sincere. He talks to the people.” He has also “sent lots and lots of help”. The old man gestures to a fancy new plaza with a basketball court and a diving board from which younger folk can plunge into a river. When the president visited, he threw a party on the plaza.

Mr Priego Colomé ticks off other benefits Tepetitán’s favourite son has brought: bigger public pensions, a training programme for the young, a scheme whereby old rural folk are paid to plant trees, and a new refinery that will bring jobs to Tabasco. When the river flooded last year, the president sent every household in the af-

ected areas a fridge, a mattress, a stove, a fan, some pans and a blender, plus 8,000 pesos (\$400). Some had received 10,000 pesos after earlier floods.

Mr López Obrador is not a conventionally skilled orator. He rambles and repeats himself. But he connects with Mexico’s have-nots and makes them feel seen and respected. Rarely has a Mexican president attracted such adulation—and loathing. To his supporters, who are largely rural, hard-up or old, he is the first national leader since the 1930s who truly cares about them. To his detractors, he is an incompetent demagogue who could drag Mexico back to its pre-democratic past.

At elections on June 6th Mexicans will have a chance to endorse one or other of these views. Mr López Obrador is not on the ballot—he is not halfway through his six-year term. But they will be voting for the lower house of the national legislature, 15 state governorships, 30 out of 32 state assemblies and thousands of local posts such as mayor. Voters can either boost Mr López

Obrador’s party, Morena, or clip its wings.

Mr López Obrador has attracted far less global attention than other populist leaders. But look closer and he appears astonishingly similar to them (see table on the next page). In his eyes, Mexicans fall into two groups: the people, whose authentic will he represents, and the elite, who are to blame for all Mexico’s ills. He sees himself as on a historic mission to sweep away the rotten habits of the past and establish a republic of virtue.

If he is on a mission from God, his opponents must be working for the other side, and he lets them know it. Mr López Obrador’s predecessor, Enrique Peña Nieto, is a “spineless, immoral, unpredictable sycophant”. Others he has called “apprentice pickpocket” or “reverend thief”. In his daily two- to three-hour-long press conferences, he blasts individuals, such as critical journalists. Some have received death threats from his supporters.

He is ostentatiously austere. On assuming office, he halved the presidential salary and put the presidential jet up for sale; he flies economy class. The poor applaud such gestures. But by cutting his own pay, he also cut that of top civil servants; no government employee may earn more than the head of state. Many of the best-qualified quit. “Mexico was building a civil service that was professional and serious. That’s now broken,” says Montserrat Ramiro, a former energy regulator. On May 25th ▶▶

▶ the United States downgraded its rating of the safety of flying over Mexico, citing regulatory laxity. A buyer has yet to be found for the presidential plane.

Few would quarrel with Mr López Obrador's diagnosis that too much of Mexico's political class was corrupt and ignored the vast majority of Mexicans. His goals are good: to raise incomes, improve public services, cut crime and eliminate corruption. But criticisms that he selects the wrong policies to achieve them, implements them ineptly and tries to nobble any institution that gets in his way hit the mark.

Not his finest hour

Consider his record on covid-19. The official death toll is 220,000, which is bad enough. *The Economist's* excess-death model estimates that as of May 10th, 477,000 more Mexicans had died than would normally be expected—a rate 68% higher than in Brazil, a bungler too.

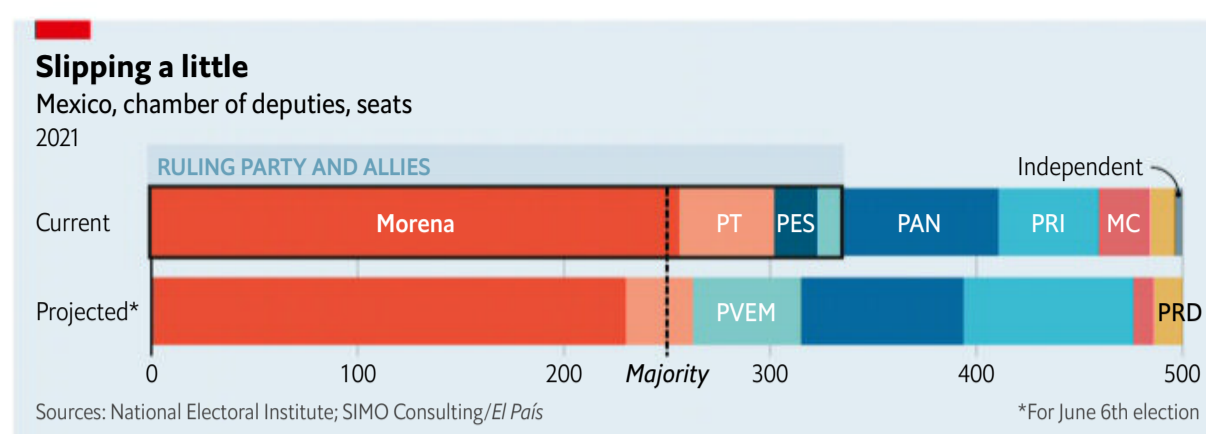
The toll is partly down to Mexico's crowded cities and overweight population. But a panel commissioned by the World Health Organisation also found "major deficiencies in decision-making" by the government. Mr López Obrador was slow to act, set aside too little money and slashed research funding. He failed to wear a mask in public and said Mexicans could curb the spread of the virus by not lying or stealing.

The infection rate is falling, but the human cost has been immense. Gregoria, who sells single cigarettes and tamales in Mexico City, says two of her brothers died of covid-19, aged 52 and 62. She adds that the pandemic has driven away her customers; the government has given her no help.

Mr López Obrador has done little to mitigate the economic impact of the pandemic because he is terrified of debt. A currency crisis in 1994 taught him that too much debt can cripple the government and let foreign creditors boss Mexico around. So his fiscal response to covid-19 has been among the most parsimonious in Latin America. Mexico's credit rating remains tolerably firm. But more than 1m Mexican businesses went bust in the past two years. The economy shrank by 8.5% last year.

Even as bars remain open, schools have been closed for 14 months (some are reopening as teachers get jabbed). Teachers' unions have strained to keep them shut. They are very powerful: in one state, Oaxaca, a union controls the distribution of federal funds to the state government. Mr Peña Nieto tried to curb the unions' power. Mr López Obrador has restored it.

The president's policies are an eclectic mix of statism, nationalism and nostalgia for the 1970s. Take energy. Back in the 1970s, oil prices were high and Mexico's state oil monopoly was a mainstay of the economy, especially in Mr López Obrador's home state. Like a boutique that stocks



bell-bottoms, he is trying to revive a questionable old fashion. He has all but banned foreign investment in Mexican oil and is pouring cash into an \$8bn refinery in Tabasco, to be run by Pemex, the mega-loss-making national oil firm.

Mr López Obrador has ordered CFE, the state electricity provider, to buy state-generated power first, rather than the cheapest option. This is often from dirty oil—so high in sulphur that its use is banned in most ships. Cheaper, cleaner options exist, but these are usually produced by private and often foreign firms, which Mr López Obrador distrusts. His policies have raised questions about \$26bn of private investments already made in solar and wind energy in Mexico. This deters investors.

Fed up with bureaucratic delays, Mr López Obrador has turned to the army, which follows orders promptly. It now watches the border, runs ports, helps catch criminals, distributes textbooks and vaccines, and is building 2,700 branches of "the Bank of Wellbeing", a state-run bank to disburse cash to the needy. Men in uniform are also building a hopelessly uneconomic \$7bn railway loop around his home state, paid for by the taxpayer. On completion the army will own it and pocket the income. For now the army is relatively clean—and respected. That may change if its leaders are tempted by the vast sums of money they suddenly control.

Mr López Obrador's crusade against corruption has been selective. He has im-

posed tougher punishments for bribe-taking officials and clamped down on firms that sell *facturas* (bills that can be used for tax deductions). However, fewer government contracts are put out to tender than in the past. Mexicans tell pollsters they are asked to pay bribes as much as before.

The president's vow to curb violence has proved hollow, too. The murder rate, five times that of the United States, has barely budged. Gangs control huge swathes of territory, corrupt the police and pull the strings of local mayors.

Could try harder

It is not Mr López Obrador's fault that drugs are illegal in the United States, nor that this generates vast profits for Mexican criminals. Nonetheless, his efforts to stem the mayhem have been limp. He blames poverty for crime, and promises to create more jobs for the young. But at the same time he has replaced the federal police with a more militarised outfit, the National Guard, under command of the army.

Under the slogan of "hugs, not bullets", he has taken a soft approach to gangs. In 2019 he freed a drug kingpin's son, hoping to buy a respite from the killing. He did not get one. The implied message to the gangs has been "You can do what you like and we won't ask for anything in return," says Jorge Castañeda, an ex-foreign minister.

For many, Mr López Obrador's gravest flaw is disregard for the rule of law. He cancelled a half-built new airport for Mexico ▶▶

The populists' checklist					
Traits of selected heads of government					
	Andrés Manuel López Obrador Mexico, 2018-	Jair Bolsonaro Brazil, 2019-	Narendra Modi India, 2014-	Viktor Orban Hungary, 2010-	Donald Trump US, 2017-21
Claims to represent will of the people	✓	✓	✓	✓	✓
Insults opponents in colourful ways	✓	✓	✓	✓	✓
Sows hatred of ethnic/religious minorities	✗	✓	✓	✓	✓
Undermines institutions	✓	✓	✓	✓	✓
Fails to respect law	✓	✓	✓	✓	✓
Ignores science	✓	✓	✓	✗	✓

Source: *The Economist*

► City. After the decision was challenged in court, he called an unlawful referendum, in which a tiny electorate gave him a green light. Claiming that the people had spoken, he pressed ahead.

This has become a habit. He used a similar plebiscite to “approve” a gas pipeline, and another to halt construction of an American-owned brewery. Such shenanigans appal business folk. “We have lost certainty for investment, and for the future of Mexico as a democracy,” says one. Foreign direct investment (FDI) should be booming, as firms scramble to diversify their supply chains away from China. Mexico has a sophisticated industrial base and the world's biggest national market on its doorstep, where demand for manufactured goods has been strong in the past year and which is starting a post-lockdown boom. Yet FDI has fallen under Mr López Obrador. A rise in the first quarter of this year included few new projects. “Firms are investing only to maintain existing projects,” says Luis Rubio, an economist.

A bad way to run things

Mr López Obrador is trying to inject the “people's will” into criminal justice, too, proposing a referendum on whether to prosecute five of his predecessors for corruption. He has also pressed an independent-minded judge to resign and signed a law extending the term of the friendly chief justice of the Supreme Court. The court will rule as to whether this is legal—which it plainly is not. Mr López Obrador's critics fear he is trying to set a precedent. For a Mexican president to stand for a second term is taboo. But what if he were merely to extend his first term, perhaps claiming that the people demanded it?

Mr López Obrador assails institutions as eagerly as children thwacking a piñata. He stifles the media by leaning on businesses not to advertise in critical outlets. He cuts the budgets of recalcitrant agencies. He wants to abolish INAI, the transparency agency, arguing that such a body is unnecessary when the president is an honest fellow like himself. He has threatened the institute that oversees elections, too. Critics fear he will do away with it and have elections run by the presidential office.

His social programmes have done some good. His pensions rises and the minimum wage have helped many. His schemes to support young and rural people are well-meaning. Some 330,000 Mexicans aged 18-29 get 4,310 pesos a month through year-long apprenticeships. Over 420,000 old rural folk are paid to plant trees.

Yet both programmes are badly designed. Some farmers chop down trees so they can be paid to plant more. Some plant species that wilt in the local soil. The youth programme is chaotic. No one checks if the young people receiving cash are actually

learning anything. Some employers demand kickbacks. The handouts are portrayed as personal gifts from the president.

His economic record is dismal. Some economists predict real GDP per person will be lower at the end of his term than at the beginning. Mexico should be doing far better. Joe Biden's stimulus should turbocharge Mexican exports, even as Mexican emigrants send chunks of their stimulus payments back home. The country's economic sluggishness is the fault of “covid, not our policies”, says Claudia Sheinbaum, the ruling-party mayor of Mexico City. On May 21st Mr López Obrador said he planned to replace the respected central-bank governor with an (unnamed) economist “strongly in favour of moral economics”.

On a collapsed overpass in Mexico City, someone has scrawled: “Was it worth the bribe?” At least 26 people died when a train fell off it in May. Bystanders speculate that someone took a backhander to ignore shoddy construction or maintenance. “It had cracks. You could see them,” fumes Gabriel González, a local taco seller. He complains about rising prices, the baleful effect of covid-19 on his business, and the lack of government support. The president's party, Morena, “is as bad as the rest of them,” he grumbles.

The election on June 6th may not deliver as big a blow to the president's party as it deserves. To oversimplify, it hinges on whether Mr López Obrador's personal popularity outweighs his woeful record. His approval rating is a healthy 61%, yet polls show most Mexicans are unhappy about the economy, public safety and corruption.

Morena is less popular than the president. It is ahead of its rivals in the polls, but its lead is slipping. A few months ago its leaders said they expected to win a two-thirds majority of the 500 federal deputies, a dozen of the 15 governor races and the vast majority of the local congresses. Now they are tempering expectations.

The campaign has been dirty. The opposition say it is no coincidence that, when Morena's candidate for governor of the rich northern state of Nuevo León flagged in the polls, the attorney-general opened criminal cases against the two leading opposition candidates. More than 30 candidates have been murdered.

Nonetheless Mr López Obrador is expected to keep control with the help of allied parties (see chart on previous page). The opposition—the Institutional Revolutionary Party (PRI), which ruled Mexico for seven decades until 2000, and the National Action Party (PAN)—are a mess. Given Mr López Obrador's record, they should be doing far better. But neither has worked out why the president is so popular. (It is because previous regimes were so self-serving and out of touch.) Neither offers a compelling vision. A newer party, the centre-left Citizens' Movement (CM), shows more promise. It controls Jalisco and may win Nuevo León; together, these big industrial states generate 15% of GDP.

Going rogue

The opposition's greatest fear has been that Mr López Obrador might win enough power to change the constitution. For that, he would need two-thirds of both houses of the legislature and a majority of state legislatures. That seems unlikely: he does not have a majority in the upper house, whose seats are not in play in this election. But his critics now worry that if he does badly at the polls, he may double down on extra-legal means of transforming the country.

His party will dominate the poorer states of the south. The opposition will dominate the richer north. More than ever, there will be two Mexicos: one, a dynamic and integrated part of North America; the other, remote, backward and resentful. And one charismatic politician, sure of his own righteousness, will be stirring up rage for at least three more years. ■



Money doesn't grow on trees



Texas politics

Red-faced

DALLAS

Why the Texas legislature is becoming more radical

TEXANS PRIZE efficiency. They like to elide “you” and “all” into a single-syllable word, and instead of the state government meeting annually, its citizen legislators are in session only every other year to discuss the budget and pass new laws. (This is despite Texas boasting the ninth-largest economy in the world, ahead of Brazil’s.) May 31st marks the end of the current legislative session in Austin, but the impact of the past few months will be felt for longer. “This was the most conservative session I’ve seen in 30 years,” says Evan Smith of the *Texas Tribune*, which keeps tabs on the state capitol.

If Texas is dancing the two-step, it is doing so with two right feet. Bills that might not have even been given a hearing in previous legislative sessions are passing both Republican-controlled chambers of the state legislature and being signed by the Republican governor, Greg Abbott. This includes one of the most restrictive abortion laws in the country, which bans the procedure as early as six weeks and makes no exception for rape or incest. “Permitless carry”, which enables those over the age of 21

to carry a handgun with them in public without going through training, fingerprinting or a background check, has also passed the legislature and will soon be signed into law. What once seemed a fringe preoccupation of a few lawmakers is now mainstream among Texas Republicans.

The same is true of a new voting bill, which puts restrictions on polling places and their hours of operation, and was expected to be signed into law as *The Economist* went to press. The session also underlined where the front-line in the culture wars is now: there was a bill banning the teaching of critical race theory (a particular

approach to historical racial bias) in schools. One preventing transgender students from joining school sports teams that match the gender with which they identify narrowly missed a deadline. Another bill being considered would require sports teams that do business with the state to play the national anthem at every game. “Just when you think Texas couldn’t go further to the right, here we are,” says Mark Jones of Rice University.

This rightward-step took many by surprise, because the last time legislators convened the bills they passed were more concerned with governing than signalling. That session had followed Democratic gains in 2018, when Beto O’Rourke ran for the US Senate. In response Republicans adopted a strategy of self-preservation, mostly avoiding polarising social issues and focusing instead on priorities for mainstream voters, such as increasing funding for public education and capping property taxes.

Since then, the 2020 election has emboldened Republicans, who see self-preservation rather differently now. After boasting that they could well take control of the state House, Democrats failed to make inroads, both because campaigning was constrained by covid-19 and because national progressive rhetoric did not play well in Texas. Republicans have seized on this, and are using this legislative session to establish their credentials ahead of next year’s mid-term elections, when all 31 members of the Senate are up for election. ▶▶

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Members of the legislature fear Democrats less than losing to a conservative rival in the primary. “Nobody cares about November any more,” says Jason Sabo of Frontera Strategy, a lobbying firm. “The only thing that matters is March, and the only way to lose a Republican primary is if someone makes you look too liberal.” Mr Abbott, too, is using this legislative session to fend off conservative primary challengers next year, when he is up for re-election. He is believed to have presidential aspirations, and views the state’s fame for some of its more Trumpian laws as thoroughly good for his own national brand.

Texas may be a bellwether for national politics. It is also a showcase for the lingering influence of Donald Trump and his acolytes. Dan Patrick, the lieutenant-governor, twice chaired Mr Trump’s campaign in Texas. The state’s voting bill panders to the former president’s false claims of electoral fraud. “The only people who were at the Capitol in Austin were legislators and older white male lobbyists in pinstripe suits and cowboy boots,” says Mr Sabo. “I have seen more American-flag-wear in the last 25 days than I have in the last 25 years,” he adds. “It’s like a Trump rally.”

Meanwhile, plenty has been left undone. Consider Dallas Independent School District (DISD), the state’s second-largest. Michael Hinojosa, the superintendent, says his biggest priority was to see that funding promised in the last session was not cut, a worry eased by the federal stimulus. But now, on top of trying to ensure that pupils catch up with the learning lost during the pandemic and the huge snowstorm in February, he will have to eliminate all black and Mexican-American studies courses at DISD’s 37 high schools and redesign professional training for all 22,000 employees, because of a bill (which will probably pass) banning modish talk about accommodating people of different ethnic or racial backgrounds. Republicans enjoy bossing teachers around. Mr Abbott announced that public schools and other government entities can no longer require masks on their campuses from June 5th.

The trend of state government exerting power over local—largely liberal—cities and counties is playing out across Texas. The voting bill is another instance of the state trying to “micromanage” by telling counties where to put polling places and how long they can stay open, says Lina Hidalgo, the Democratic county judge of Harris County, which covers Houston. Other examples include new laws to stop local governments from allowing homeless encampments and to prevent them from defunding the police (which they are not actually doing). “We can finally retire the idea that local control is a conservative value,” quips Mr Smith of the *Texas Tribune*.

Legislators will be back in Austin this

autumn for a special session on redistricting. Because the Democrats did not win control of the House, Republicans will have unchecked power to redraw districts to favour them. It will be hard to draw districts that last for more than a couple of election cycles, predicts Ed Emmett, a Republican who was county judge and lost to Ms Hidalgo. “If Republicans don’t start talking about issues that the general public cares about, we’re not going to be competitive,” he says. Yet similar pleas from moderate Texas Republicans have been heard before, and ignored.

Right now the headlines are focused on the bills being passed, but the session may be remembered just as much for what was ignored. This includes devising a plan for Texans who lack health-care coverage and shoring up the state’s electricity grid, after the February storm left millions without electricity and killed around 200. The legislature has not developed a substantive bill to prevent the grid from failing again, even though experts have warned that the summer heat could cause widespread blackouts. Their elected representatives may leave them without electricity, but at least Texans will not need a gun permit. ■

Policing

Body of evidence

WASHINGTON, DC

The George Floyd Act is a police-reform smorgasbord. Would it work?

ACCORDING TO INITIAL reports from the Louisiana State Police, Ronald Greene died in a car crash. This was in May 2019, one year before the murder of George Floyd. Mr Greene’s family was suspicious, so they pressed the police to release footage from the cameras worn by six of the officers on the scene. Not all the devices were switched on, and it took a 17-month wrangle before they could watch the footage (the public did not see it until the Associated Press leaked it, seven months after that). It showed the troopers repeatedly stunning Mr Greene with a taser, punching him, and leaving him moaning face-down on the road for nine minutes; he died on the way to hospital. The assault was recorded on body cameras.

After the murder of Mr Floyd a year ago, a police-reform bill named after him was introduced in Congress. It was passed by the House of Representatives but is pending in the Senate. The House version encompasses a range of policies, including restrictions on the use of force (any application of physical restraint other than handcuffing), creating a national database



Smile for the camera

of officer misconduct, requiring federal officers to wear cameras and limiting qualified immunity (a judicial doctrine that shields officers from civil liability). Would it actually improve policing?

A large-scale study by the Becker Friedman Institute at the University of Chicago found that body cameras reduce the number of police misconduct complaints by 17%. They also probably reduce the use of force. But in 2020 only about 8,000 departments (about 45%) used such cameras and just seven states required them. The Floyd Act, as currently written, requires federal uniformed officers to wear body cameras, and requires state and local law enforcement to buy them with federal funds. Much of the Floyd Act applies only to federal officials: the Federal Bureau of Investigation, United States Park Police, officers in the various federal departments, and others. They account for only about one-fifth of America’s 700,000 law-enforcement officers. But the bill could nevertheless serve as a standard for other departments, says Mark Levin, a lawyer at the Council on Criminal Justice, a think-tank.

Just putting cameras on officers is not enough, as shown by Mr Greene’s death. North Carolina requires a judge’s approval to release video footage, as does Louisiana, where Mr Greene was killed. Eleven other states also restrict public access to body-camera footage. By contrast, when Ma’Khia Bryant, a black teenager, was shot and killed by an officer in Ohio, the video footage was released publicly in a few hours. Ohio’s body-camera policy, signed by a Republican governor, John Kasich, in 2019, makes the footage part of the public record. As currently written, the Floyd Act requires federal agencies, in most cases, to release any footage showing a death or serious injury in police custody within five

▶ days of being asked to do so.

Some departments allow officers to decide themselves when to switch them on. Others have strict protocols for when a camera must be activated (at the start of any call, for example). Others use cameras activated automatically by sirens or drawing a gun from its holster. Such details matter. One study found that among officers systematically recording incidents on arrival, rather than using their discretion, use-of-force incidents decreased by 37% in comparison to officers not using body cameras. Among those who chose when to turn their cameras on and off, use-of-force incidents increased by 71% against this control group. Limiting discretion protects officers, too, argues Chad Marlow of the American Civil Liberties Union. “In the climate that we live in nowadays, if police officers have discretion and make the wrong call, a malevolent motive is going to be assigned to that officer.”

Some other parts of the bill are strongly supported by the evidence. De-escalation training—teaching officers techniques that require less frequent and less severe uses of force—was found to reduce use-of-force incidents by 28%, decrease citizen injuries by 26% and lower officer injuries by 36%. This sort of training, though effective, is required in only 16 states. But not all aspects of the Floyd Act are supported by rigorous evidence. Implicit-bias training, teaching officers about their unconscious biases, has been implemented in 69% of police departments. Yet the University of Chicago Crime Lab reckons that, as currently implemented, it is ineffective. ■

Central America

Foreign domestic policy

The Northern Triangle poses a migration trilemma

HAD THE protest not been on the Mexican side of the border, it could have been mistaken for a rally for Joe Biden. Migrants sported white T-shirts emblazoned with the president’s campaign logo and the message “Biden Please Let Us In”. Critics say the president’s folksy manner is to blame for a surge in arrivals at the border that his administration is scrambling to contain. That may be unfair, but it reflects the discontent many Americans feel over his handling of immigration. It is one of the few policy issues where a majority disapprove of the president’s performance.

While some migrants—particularly from the “Northern Triangle”, as Guatemala, Honduras and El Salvador are collective-



Potential Americans

ly known—may have been encouraged by Mr Biden’s promise of a “fair and humane immigration system”, most leave their homes for other reasons. Central America has the highest poverty rate, and some of the worst homicide and domestic violence rates, in Latin America. Families who have the means to legally move abroad do so, while those who do not will often take the long route north. Worsening natural disasters, such as back-to-back category-four hurricanes in 2020, also displace people.

Mr Biden is no stranger to the Northern Triangle’s woes. As Barack Obama’s vice-president he oversaw an effort to reduce migration by dealing with its root causes, a job he feels compelled to finish, says Paul Angelo, from the Council on Foreign Relations, a think-tank. He has requested \$4bn in aid for the Northern Triangle and chosen vice-president Kamala Harris to lead talks there. Ms Harris will visit Mexico and Guatemala in June, her first official trip abroad. And he appointed Ricardo Zúñiga, a senior member of the foreign service, as special envoy to the Northern Triangle.

Donald Trump froze aid in the hope of forcing governments to detain north-bound migrants. This may have contributed to a dip in arrivals. Mr Biden hopes to accomplish something similar with programmes to reduce crime and poverty. Some have met success: according to USAID, in 2014-2017 community violence-prevention schemes helped to lower murder rates by 45% across 50 municipalities in El Salvador and 36% nationally in Honduras (other experts point to a crackdown in prisons and rumoured negotiations between gangs and politicians). Mr Biden has not abandoned harder options, however. His administration struck an agreement with Mexico and the Northern Triangle to beef-up their border security.

Yet working with central-American governments goes against another of Mr Biden’s impulses: fighting corruption. Over the past decade the rule of law has eroded in the Northern Triangle, according to Transparency International, a watchdog. The Universidad de las Américas Puebla ranked Honduras and Guatemala among the worst countries for impunity (Mexico trailed not far behind). Both scrapped international commissions that investigated and prosecuted crooked officials.

Finding a balance now falls to Ms Harris and Mr Zúñiga. The vice-president has conspicuously avoided criticising Andrés Manuel López Obrador despite some of his autocratic inclinations, in part because his co-operation on immigration is necessary. Meanwhile the Mexican president has rebuked America for giving aid to an NGO that has criticised his administration.

Mr Zúñiga has had a rocky start with El Salvador’s president, Nayib Bukele, who has bristled at criticisms of his government’s tightening grip on power. And the Biden administration has given a wide berth to Juan Orlando Hernández of Honduras, who stands accused in a court case in New York of taking bribes from drug traffickers. The US-Northern Triangle Enhanced Engagement Act empowers the Department of State to identify corrupt officials and deny them entry into America. Several names have been added to the list, including Mr Bukele’s cabinet chief. The problem, warns Andrew Selee of the Migration Policy Institute, is that “in contexts where corruption is required to get things done, no one has clean hands.” ■

Infrastructure year

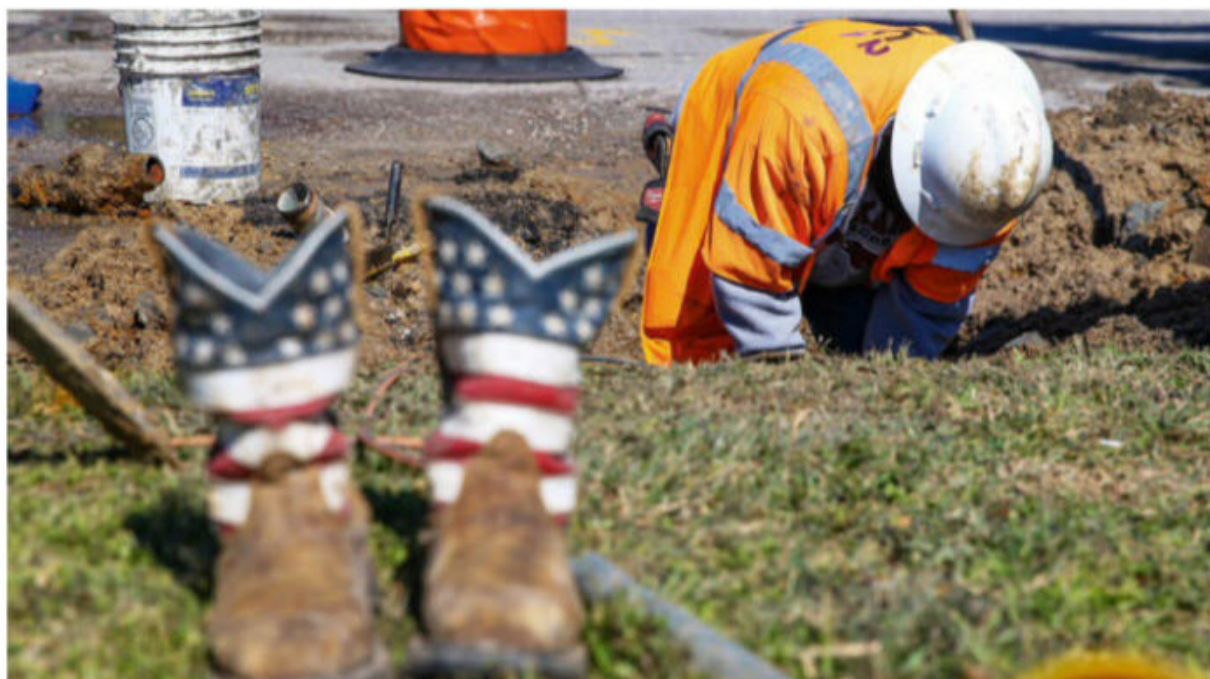
Build back under budget

LOS ANGELES

High construction costs will be a drag on planned infrastructure investments

“THIS IS A unique opportunity,” says Bent Flyvbjerg, an economic geographer who studies infrastructure projects. “There hasn’t been anything like it in the history of the United States.” He is referring to the Biden administration’s \$1.7trn infrastructure plan. A group of Senate Republicans have countered with a \$1trn offer. Whatever the final number, how can lawmakers make sure the money goes as far as possible?

The need to build new projects and repair old ones is not in dispute. Poor infrastructure costs trillions in foregone growth. A third of America’s bridges are structurally deficient. New structures, such as seawalls and storm barriers, are ▶▶



Pressing forward

► needed to help mitigate the effects of climate change. But productivity in public-sector construction has stagnated for decades and high costs abound, particularly where transport is concerned. The money needed to construct a mile of interstate highway rose threefold in real terms between the 1960s and the 1980s. American subway lines often cost between two and four times as much as typical projects in Europe or Asia.

Consider the James Wilson line, a hypothetical rail project named after *The Economist's* founder and paid for with an influx of Biden bucks. Even before ground is broken, the cost forecasts are wildly inaccurate and prospective benefits dramatically inflated. A cost-benefit analysis is done, but elected officials discard its results in favour of political considerations. Mr Flyvbjerg argues that this all leads to the projects that look best on paper being implemented, “and the projects that look best on paper are the projects with the largest cost underestimates and benefit overestimates, other things being equal”.

Soon, a press release goes out announcing the construction of the Wilson line. Immediately vocal pressure groups demand expensive changes. By insisting on additional features like walls to contain noise and paths for pedestrians, this stirring display of participatory democracy adds new costs. Spooked by the response, the government takes expensive, pre-emptive steps to reduce the likelihood of litigation. A recent paper argues that such exercises of “citizen voice”—and governments’ fear of them—are a big cause of soaring highway-construction costs.

Leah Brooks, one of the paper’s authors, argues that legal and social changes in the 1970s set the stage for this situation. That decade saw the rise of homeowners’ associations, as well the introduction of legislation requiring more consideration of citizens’ concerns. New judicial doctrines

increased the ability of citizens to sue executive agencies. The National Environmental Policy Act (NEPA), a landmark piece of legislation passed in 1969, delivered valuable environmental protections. Combined with a Supreme Court decision that enhanced citizens’ ability to sue the government, NEPA provided a “judicial toe-hold” from which to oppose new construction—whether or not the challengers’ concerns are genuinely motivated by a desire to protect the environment.

It is now time for a contract to be awarded for construction of the Wilson line. Best practice is to give out contracts on the basis of cost, speed, and a technical score determined by an in-house oversight team. But unfortunately the agency drawing up the contract does not have enough qualified staff to conduct a full review of construction proposals. The lowest bidder wins the job, as is typically the case in America. After winning, however, the contractor quickly tacks on additional costs, and the government is again in over its head. Unable to manage such a big project, it ends up relying on contractors and consultants who botch key segments of the Wilson line, requiring expensive do-overs. Inter-agency turf battles and co-ordination problems worsen the situation.

For the Wilson line’s underground sections, its builders choose to do things the hard way. Its stations, like those of New York City’s recently built Second Avenue subway, are unnecessarily large. And instead of digging the stations out from street level in a so-called “cut-and-cover” approach, which is the (cheaper) norm in sensible places like Denmark, the Wilson line’s builders choose to mine them from within a tunnel. Alon Levy, who studies transit infrastructure costs, says such mystifying choices come about because America has failed to copy other countries. Mr Flyvbjerg goes further: America has such an “island mentality”, he claims, that it

doesn’t even consider outside ideas for long enough to reject them.

What can be done so that projects like the imaginary Wilson line do not go off the rails? State and federal agencies can ensure that teams have enough capacity to review multiple projects and to manage contractors. Being too punctilious can backfire, though: New York’s exacting requirements are partly responsible for the astronomical costs of subway construction there.

More advanced construction practices can also help. Standardisation of components like railway cars and subway stations can reduce variation, thereby shortening timelines and lowering costs. Transparency and accountability are vital as well. The Army Corps of Engineers, which is responsible for maintaining more than \$300bn-worth of dams and levees, records cost data but does not make them public. Ms Brooks says it should. To mitigate the effects of citizen voice, she also suggests a statute of limitations on litigation for some infrastructure projects.

Donald Trump implemented NEPA reforms which he said would speed construction, but which also did away with some valuable environmental protections. The Biden administration is considering rolling back these changes. NEPA has been used to challenge not just polluting industrial facilities but renewable energy projects as well, and the threat of environmental lawsuits adds to infrastructure costs. Mr Biden is free to roll back Mr Trump’s changes—but he should consider making some of his own. ■

Conservation

Wildlife wars

DENVER

The Sagebrush Rebellion never ended

BACK IN February, Montana’s Republican governor killed a wolf without a proper permit. Greg Gianforte, who is best-known for body-slaming a reporter on the campaign trail in 2017, trapped the creature after it strayed out of Yellowstone National Park and onto a private ranch owned by one of his political donors—the director of Sinclair Broadcast Group, whose 191 local TV stations might not frown on trapping liberals. A satirist could be proud of this Western. It also exemplified what Chris Servheen, a wildlife biologist in Missoula, describes as a new bout of “anti-predator hysteria” in state legislatures in the northern Rocky Mountains.

Lawmakers in Montana and Idaho have ►

▶ recently passed a slew of measures to reduce the number of bears and wolves in their states. In Idaho one law allows wolf-hunting from snowmobiles and all-terrain vehicles. It devotes money to private contractors tasked with hunting the animals down and removes limits for the number of wolves one person can kill. The law says that wolves can be killed so long as their number still exceeds the state's recovery goal of 150 animals. That means 90% of the Gem State's 1,500 wolves are at risk. Next door in Montana, Mr Gianforte has signed bills that, among other things, will extend the wolf-hunting season and reimburse hunters and trappers for their expenses.

Wolves are not the only predators in legislators' cross-hairs. Grizzly bears are still protected in the Lower 48 under the Endangered Species Act (ESA). But two new laws in Montana increase the likelihood that they will be killed, by banning state employees from moving bears that wander out of protected zones, and allowing people to kill a bear if they think it is threatening livestock. Republican senators from Idaho, Montana and Wyoming have also introduced a bill to remove grizzlies around Yellowstone from the endangered list. Mr Servheen, who led the Fish and Wildlife Service's grizzly-bear recovery programme for 35 years, says the laws amount to the biggest attack on the region's large predators since they were nearly wiped out by settlers in the 19th and early 20th centuries.

The laws' proponents argue that the animals hurt ranchers and human hunters by preying on livestock and big game, such as elk. The data say otherwise. The number of cattle and sheep killed by wolves amounts to an insignificant fraction of Idaho's livestock, and ranchers are compensated for their losses. There are also more elk today than when grey wolves were brought back to the state in 1995.

Why, then, are Republicans eager to kill the West's big predators? The impulse behind these laws is not new. Andrew Isenberg, a historian at the University of Kansas and author of "The Republican Reversal: Conservatives and the Environment from Nixon to Trump", says the threat wolves pose to ranchers is largely symbolic. The ESA was passed in 1973 and signed into law by Richard Nixon. The law called for the protection of threatened animals and, crucially, the ecosystems they inhabit. But those protections were viewed by many westerners as overreach by the federal government, which, they argued, should have little say over how western lands are managed.

The animosity towards the ESA and other federal regulations on land use in the West boiled over in the form of the Sagebrush Rebellion in the late 1970s. The rebels—a coalition of ranchers, miners, log-



We're going on a bear hunt

gers, oilmen, local officials and western politicians—fought to pass bills that would transfer the management of public lands to the states. Ronald Reagan famously told Utahns to "Count me in as a rebel" on the campaign trail in 1980. The Gipper's election quieted the rebels, but fights over

federal land flare up whenever the interests of westerners in extractive industries, ranching or state government clash with those of conservationists and, lately, climate scientists.

More recently, Donald Trump's rollback of environmental laws gave would-be rebels something to cheer. The Trump administration took grey wolves off the endangered list and reduced the size of protected lands. State parties have kept it up. Republicans in Montana enjoy a trifecta, which means the party controls both chambers of the legislature and the governor's mansion. Steve Bullock, the state's previous governor and a Democrat, would probably have vetoed the predator laws.

Conservation once had bipartisan support. That consensus, argues Mr Isenberg, broke down during the oil crisis in the 1970s when the environment took a back seat to the pursuit of energy independence. Perhaps that calculation will shift again. Meanwhile, the wildlife wars rage on. "It's like watching a car wreck in slow motion," Mr Servheen says about Montana's new bear laws, "when it's your car and your family in it." ■

New York

Island mentality

THE HUDSON RIVER

New York's newest island reflects the city's spirit

DEPENDING ON tide levels, New York City is made up of 40-odd islands. Some are famous, like Ellis Island, where 12m immigrants officially entered America. Hart Island is where the city buries its poor. Rikers Island is a penal colony. But mostly, as former mayor, Michael Bloomberg once noted, "New York City's smaller islands are our secret treasures." Governor's Island is a car-free park. City Island is a fishing village. As of May 21st, New York has a new, manmade, one: Little Island.

Little Island rests on 132 concrete "tulips" of different heights, which create rolling hills and winding footpaths over 2.4 acres (1 hectare). Designed by Thomas Heatherwick, a Brit with a talent for eye-catching public designs, the island is a whimsical delight. Like its neighbour the High Line, an obsolete freight track converted to public space which (in the before times) drew 8m visitors a year, it will be much visited.

It is also characteristically New York, a city enlivened by madcap projects. This one was the brainchild of Barry Diller, a billionaire media mogul. Mr Diller was asked to help rebuild a pier destroyed by Hurricane Sandy. He was keen to do something more architecturally ambi-

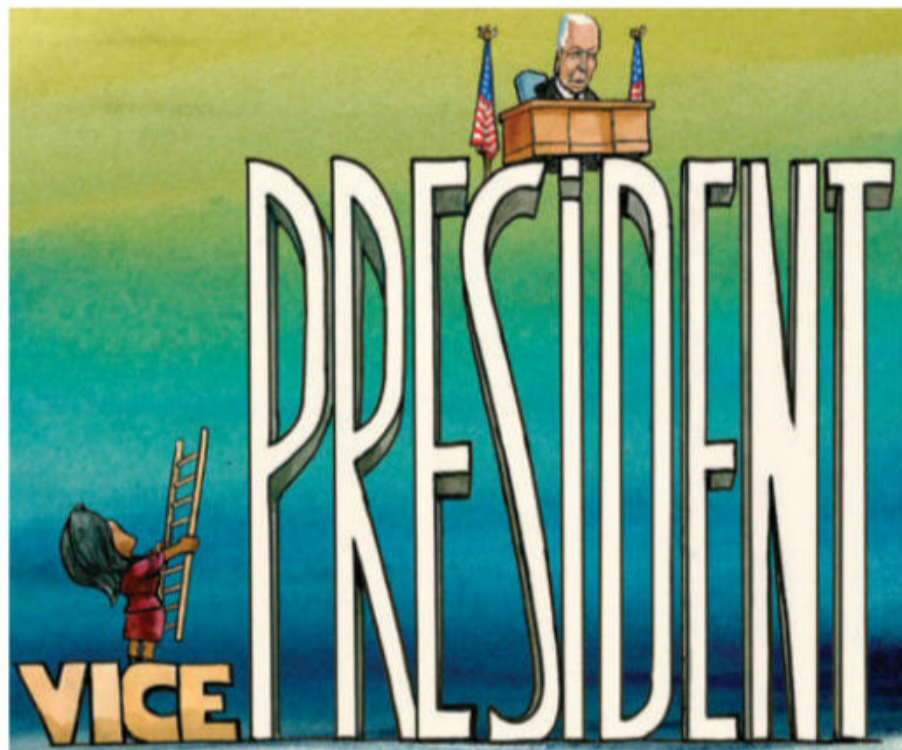
tious. The project faced several legal challenges: its creator almost gave up on what had become known as Diller's folly. Then Andrew Cuomo, New York's governor, intervened to keep it afloat.

Mr Diller's and his wife Diane von Furstenberg's foundation spent \$260m on Little Island. It will continue to maintain the island for the next 20 years. He says he understands people who say, "Why should somebody with money dictate what public places are like?" But, he says, that misses the point. Having the resources means he can "braze it through" while public officials delay.

The island opened just as the city begins to lift restrictions. Dan Doctoroff, Mr Bloomberg's deputy mayor, who steered the city's tilt toward the west side, sees Little Island as a catalyst for New York's recovery. It is also part of the west side's rebirth, which includes the High Line (Mr Diller and his wife were early champions of that too) and Hudson Yards, a huge redevelopment project. Google has leased some of the pier next door. To the south a garage for rubbish lorries is being converted to a sports field and a sandy beach. "The key," Mr Doctoroff says, is to "create conditions where people want to do extraordinary things."

Lexington | Veep stakes

Is Kamala Harris a gift to the Republicans?



HERE IS WHAT the millions of Americans who take their opinions from Fox News and related outlets have been hearing about Kamala Harris. The vice-president was put in charge of the southern border because she “has brown skin”. Her picture book, “Superheroes Are Everywhere”, was issued to migrant children, maybe corruptly. (“Is she profiting from Biden’s border crisis?” tweeted Republican supremo Ronna McDaniel.) Metropolitan elites worship her; *Vogue*, which ignored lovely Melania Trump, put her (her!) on its cover. Her entrepreneur niece, Meena Harris, is an anti-white racist queen of cancel culture.

In other words, while the mainstream media soberly cover Ms Harris’s efforts to win Joe Biden’s trust and master her portfolio (which includes Mexico and Guatemala but not the border, where her book has not been issued to anyone), she is being relentlessly defined on the right as a dishonest member of the corrupt elite with an agenda alien to white America. Tucker Carlson—who during the election campaign refused to pronounce Ms Harris’s Hindu name correctly—has neatly synthesised these two slanders. “She’s a globalist superhero. Just like Voldemort, you can’t really know how to pronounce her name.”

So far, so predictable, you might say. But Ms Harris is no ordinary vice-president. As the first non-white, female vice-president of a party that has made diversity an organising principle, she is the presumptive next Democratic presidential nominee. It is hard, even at this early stage, to imagine her being denied. Given the 78-year-old Mr Biden’s age, her elevation could be only three years off. And the election that would ensue—the Republicans’ worsening derangement suggests—may well be as crucial as the one just past. This raises the question of whether she has what it takes to rise above the right-wing slanders and appeal to middle America, as Barack Obama did, or whether she will be destroyed by them, as Hillary Clinton was. And it is making senior Democrats nervous. “Everyone is saying, ‘Oh God, Kamala is next and then we’re in trouble,’” says a Democrat close to the White House.

Oratory aside, Mr Obama’s success was based on an ability to reassure white Americans that was rooted in his intimate knowledge of them. The son of a white woman, brought up by his white grandmother, he promised better times for all and rarely men-

tioned race unprompted. Ms Harris is a different case. She is the daughter of South Asian and Jamaican immigrants, brought together by the civil-rights movement, who brought her up as black. Though nothing like the vindictive race-warrior of Mr Carlson’s fevered imagining, she leans into black identity politics more than the former president did.

This is a good way to win elections in California. It would be a disastrous general-election strategy, as shown by the white backlash to Mr Obama, notwithstanding his carefulness, and by Ms Harris’s failure to impress even black voters during her hapless presidential bid. African-Americans tend to support the Democratic candidate who seems likeliest to appeal to white voters, on which basis they preferred Mr Biden. And her Hail Mary effort to turn things round by accusing Mr Biden of racial insensitivity during a televised debate (“I do not believe you are a racist [but]...”) only confirmed them in their choice. Polls suggested that black voters found it cynical and insincere.

The coverage of her current job has also been mixed. She has been accused of failing to carve out a well-defined “Veep” role or hire a sufficiently politically savvy staff. This is probably unfair. Her pressing need is to do whatever Mr Biden (with whom she had some making up to do) wants in order to make his administration successful. And she appears to be doing that. She was involved in the recent Middle-Eastern diplomacy. She is due to visit Mexico City next week. Though inexperienced in foreign policy, she is a polished front-woman who espouses Mr Biden’s internationalist views. The criticism of her seems rather to reflect not only the underlying anxiety about her ability to succeed him, but also the unusual nature of her position.

Ever since Walter Mondale upgraded the vice-presidency in the late 1970s, most of its occupants have spent four years trying to make themselves useful; then a second term, if it transpired, laying the groundwork for a presidential run. The carping suggests Ms Harris is expected to do both things at once, which is unrealistic; and indeed she would be castigated if she tried to.

There is one political task she cannot delay, however. That is to understand why her presidential campaign failed, which was not mainly to do with her race or gender, however much of an electoral burden they may be. Her stump speech sounded like group-written marketing spiel (something about wanting to “prosecute the case against Donald Trump”). Her promise—quickly rescinded—to scrap private medical insurance suggested a politician who had no clear idea where or what she stood for: whether on the left, with an emphasis on expanding the government, or towards the centre, with more focus on enterprise and opportunity. This was why the pundits and donors who at first flocked to her quickly moved on. It was in turn why she resorted to playing the race card against Mr Biden. No wonder she makes some Democrats nervous.

Kamala chameleon

She should reflect on the fact that the centrist Mr Biden won as Mr Obama had before him: by promising hope, opportunity and togetherness for all. There is no evidence that Democrats can get round Americans’ mistrust of government and vexed racial politics any other way (however they may hope to govern). Mr Obama, a big admirer of Ms Harris, must believe she can pull off the same trick. Talking up her vice-presidential credentials was one of his two big political calls last year. The other was his initial dismissiveness of Mr Biden. It would be a terrible shame if the former president turned out to be wrong on both counts. ■



Brazil's politics

Losing traction

SÃO PAULO

As his popularity fades Jair Bolsonaro turns to patronage

THERE ARE many ways to describe pork-barrel politics in Brazil. They include *tomá lá dá cá* (give and take), *troca de favores* (trading favours), *corporativismo* (corporatism) and *velha política* (old politics). In 2018, on the campaign trail, Jair Bolsonaro used these and far ruder insults to disparage his fellow politicians, especially ones from the left-wing Workers' Party (PT), which governed from 2003 to 2016 and was roiled by two big corruption scandals. As president, he vowed to advance his agenda without distributing *cargos* (jobs) or *emendas* (amendments: ie, pork).

The first sign he had given up on this "new politics" came in mid-2020, when he formed an alliance with a bloc of self-serving parties known as the *centrão* (big centre) in order to shield himself from impeachment petitions, of which there are now 117. *Centrão* support is never free. A recent investigation by *Estado de S. Paulo*, a newspaper, showed that last year Mr Bolsonaro's government forked over 20bn reais (\$3.9bn) through *emendas do relator*, or "chairman's pork", a reference to the chairman of the budget committee. At least 3bn

reais were funneled through the development ministry to congressmen to fund public works and purchase farm equipment at inflated prices, sometimes through companies owned by relatives.

The scandal, which the press has dubbed *tratoraço* (roughly, "tractor-gate"), is the clearest proof yet of Mr Bolsonaro's participation in pork-barrel politics. It is unfolding alongside an even bigger public-relations disaster: a parliamentary commission of inquiry (CPI) into the government's handling of the pandemic. The two crises demonstrate how Mr Bolsonaro has become increasingly weak and how Congress, which is known for virus-like opportunism, has used his vulnerability to strengthen itself. "The more fragile the president, the higher the cost of support,"

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explains Sylvio Costa of Congresso em Foco, a watchdog site.

Brazil's political system, known as "coalition presidentialism", is a hybrid between the presidential model of the United States and European-style parliamentary government. The president directs policy-making and drafts the budget but cannot get much done without Congress, where his or her party rarely has a majority. Most of Brazil's 30 or so political parties lack ideological platforms; they back presidents in exchange for patronage. This favours vote-winning projects like paving roads or painting schools, rather than long-term planning, says Élide Pinto, a professor of public finances at Fundação Getúlio Vargas (FGV), a university.

In 1994 six congressmen lost their posts as a result of a vote-buying scandal involving fake NGOs. In 2005 a *centrão* lawmaker admitted that the PT was funnelling 30,000 reais per month to congressmen in exchange for legislative support. (He was kicked out of Congress but is now an ally of Mr Bolsonaro.) In 2014 prosecutors launched a probe called Lava Jato ("Car Wash") which revealed a vast kickback scheme among construction firms, political parties and the state oil firm.

In response to protests, Congress passed a series of constitutional amendments aimed at reducing corruption while keeping congressmen sweet. Most *emendas* became in effect an automatic allowance (not at the president's discretion) for lawmakers to spend in their constituen- ▶▶

► cies. They had to follow new rules, such as providing receipts. But such restrictions made it harder for presidents to cobble together a coalition. When Dilma Rousseff, a PT president, was impeached in 2016, it was technically because she had hidden the size of Brazil's budget deficit; but also because she struggled to manage an increasingly unruly Congress. She expanded her cabinet to 39 ministries in order to dole out patronage, but a recession in 2014-16 limited her scope.

Mr Bolsonaro is experiencing something similar. Brazil has had one of the worst covid-19 outbreaks in the world, with an official death count of more than 450,000. His strategy of downplaying the pandemic seemed to work last year, when a third of Brazilians received emergency aid. But this year a second wave has coincided with rising inflation, slow vaccination and a reduction in handouts. Mr Bolsonaro's approval rating has fallen from 40% to below 30%. The speaker of the lower house, Arthur Lira, the only person who can open impeachment proceedings, warned of "bitter political remedies".

But impeachment is unlikely, partly because Mr Bolsonaro in effect reinvented chairman's pork at the end of 2019. Most of the new allowances went to lawmakers who voted for Mr Lira and the *centrão's* pick to head the Senate, Rodrigo Pacheco, in leadership elections in February. Documents on government sites account for only around 1bn of the 3bn reais spent by the development ministry. The budget chairman, Domingos Neto, sent 110m reais to a city of 59,000 people of which his mother is the mayor. The ministry agreed to pay 500,000 reais apiece for tractors listed as costing 200,000. It insists that there were no irregularities.

A bigger threat to Mr Bolsonaro's popularity is the CPI, which began hearing testimony in the Senate this month. Its daily sessions are broadcast live on TV, creating a macabre oral history of Brazil's pandemic disaster. Two former health ministers said that the government's initial strategy rested on herd immunity and hydroxychloroquine, an anti-malarial drug promoted by Donald Trump. A Pfizer executive said that the government ignored six offers to sell Brazil vaccines. The health minister at the time, Eduardo Pazuello, a general who was also in charge when the city of Manaus ran out of oxygen, tried to skip testifying by saying he might have covid-19 himself.

Mr Bolsonaro "is becoming a prisoner of his unpopularity", says Alessandro Molon, the leader of the opposition in the lower house. The latest polls show the president's support falling in nearly every constituency, including among his strongest backers, such as evangelical Christians. His top rival in the 2022 election is likely to be Luiz Inácio Lula da Silva, a former PT

president whose popularity has recently increased. One poll suggests that if a runoff election were held tomorrow, 55% would pick him against just 32% for Mr Bolsonaro (the rest said neither). When Brazilians see Europeans and Americans getting vaccinated, they realise "our president is a caricature," says Ciro Gomes, a former governor who also plans to run.

Mr Bolsonaro could recover before next year's election. Vaccination is at last progressing and the economy is doing better than feared. The economy minister, Paulo Guedes, has urged Congress to reform taxes and the public sector. This would free up money for vote-winning programmes, he argues. But lawmakers want handouts too. "The *centrão* is not loyal," warns Rebeca Lucena of BMJ, a consultancy. "If the ship is sinking, it will jump to another." ■

Chilean politics

New faces galore

SANTIAGO

An electoral surprise in Chile may produce a left-wing constitution

IN CHILE THE covid-19 pandemic has had many victims, but for a while the government was not among them. In late 2019 and early 2020 the country was rocked by protests in which 30 people died. It seemed likely that the unrest would topple the centre-right government of President Sebastián Piñera. But he held on by agreeing to draft a new constitution to replace the one introduced in 1980 by Augusto Pinochet, a military dictator who ruled Chile from 1973 to 1990. Mr Piñera was helped by the pandemic, which took people off the streets and caused the protests to fizzle.

On May 15th and 16th, however, Chil-

eans used the ballot box rather than the street to express their rage. Independent candidates (some, confusingly, affiliated to party lists) grabbed 88 of the 155 seats in the convention to draft a new constitution. With the seats reserved for indigenous people, roughly 68% of participants will be independent, more than the two-thirds majority needed to approve the wording of the new constitution. Mr Piñera's coalition failed to win the third of seats it expected, depriving it of a veto.

Corruption scandals and anger about inequality caused the landslide. "People can't stand it any more," says Cristina Dorador, a biologist elected as an independent for Antofagasta region, the country's mining heartland. "People wouldn't talk to us about our campaign until we said we were independents."

For decades, Chileans benefited from a strong economy and falling rates of poverty, thanks to free-market policies. But many felt left out. Pensions and health care are most generous for those with good jobs. Those in informal work, 27% of the labour force, are much worse-off. Other public services are often mediocre.

Only 2% of Chileans trust political parties, according to a recent poll by the Centre for Public Studies, a think-tank in Santiago, the capital. The members of the newly elected convention include midwives, a mechanic, teachers and students. By law, half are women—unlike Congress and the top ranks of the main political parties, which are dominated by men. "The convention is a much better reflection of Chile than Congress," says Juan Pablo Luna, a political scientist at the Catholic University.

It is also more left-wing. Many of the independents' manifestos called for a constitution that requires a more generous welfare state and limits the private-sector's role in providing public services. Most Chileans seem to want more protection for the environment, too. This may lead to ►►



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► curbs on mining such things as copper and lithium. Chile's private, inherited water rights are widely disliked as well. Whether the new constitution will create more entitlements than taxpayers can pay for remains to be seen.

Though the independents have a supermajority, they are not united. Those elected on party lists may toe party lines. A plebiscite to approve the new constitution is expected to be held in the second half of next year. Chileans will be obliged to vote.

Yet even if the convention founders, Chilean politics will have been shaken up. Presidential and parliamentary elections are due in November. Political parties will include more independents in their lists of candidates. Some independents may even form their own political parties in order to run. Everything is up for grabs. ■

Peru's election

Commies, crooks and bloodshed

LIMA

A massacre in the jungle adds more misery to an already awful election

AS OMENS GO, it was a bad one. On May 23rd, less than two weeks ahead of Peru's presidential run-off election, 16 people were massacred in a remote village in an area known as "VRAEM", the valley of the Apurímac, Ene and Mantaro rivers, where coca is grown. The area has been under a state of emergency since 2003.

The motive of the killers remains unclear. The authorities in Lima rushed to blame remnants of the Shining Path, a radical left-wing insurgency. Leaflets justifying the murders were left behind with the bodies. In the 1980s and 1990s the Shining Path was responsible for tens of thousands of deaths. However, the mayor of Vizcatán del Ene district, where the massacre took place, told reporters that he thought drug traffickers were more likely to be responsible (though both could be true). The violence throws a grenade into Peru's already tumultuous election.

On one side is Pedro Castillo, a rural school teacher who briefly shot to fame in 2017 when he led a long teachers' strike. He is the candidate of Free Peru, a hard-left party. On the other is Keiko Fujimori, the daughter of Alberto Fujimori, who as president in 1990-2000 defeated the Shining Path, but who has been serving a 25-year sentence for corruption and other abuses since 2009. Mr Castillo and Ms Fujimori were never expected to reach the run-off. Neither polled well in the first round campaign. But in a crowded field of 18 candidates on April 11th, they came top, with 19%

Buttergate

Udder absurdity

VANCOUVER

Canadians are in a flutter about butter

IT WAS AT the beginning of Canada's lockdown last spring that Julie van Rosendaal, a pastry chef in Calgary in Alberta, first noticed that her room-temperature butter was not as soft as it should be. At first she thought she was imagining it. But she tracked her observations across the year. In December she reached a conclusion. The consistency and texture of Canadian butter had changed. In February she aired her findings on social media.

Ms van Rosendaal believes that butter has become harder because farmers are feeding more palm-oil products to cows. (Palmitic acid can help them produce more milk.) Thousands of Canadians share her suspicion. The media have dubbed it "buttergate". The Dairy Farmers of Canada, an industry group, at first tried to palm off critics with denials. But under pressure it switched to grovelling. It called an expert panel to assess the claims, and urged farmers not to use palm products. It is not just bakers who are cheesed off. The British Columbia Milk Marketing Board has also noted complaints from coffee shops about "non-foaming milk".

Lockdowns are partly to blame. Like people everywhere, Canadians trapped at home by covid-19 have taken to baking. Demand for butter soared by 12% last year, according to the farmers. However in Canada the dairy industry is protected by high tariffs, so imports could not fill the shortfall. Farmers also must stick to a "supply management" policy, meaning they cannot simply buy more cows when

demand soars. Somehow, they had to make each cow produce more milk. Hence the palm oil.

With lockdowns now easing, Canadians may start baking less. But the farmers have other problems. In the US-Mexico-Canada Agreement, a trade deal which took effect last July, Canada agreed to reduce certain barriers to American exports of dairy products. In December American dairy farmers filed an enforcement action, claiming that quotas remain a problem. If Canadians can buy more American dairy products, they will surely be better off. But as ever with trade deals, the benefits are thinly spread across millions of households. The losers are few, but require endless buttering up.



and 13% respectively, putting them through to the final vote.

Ms Fujimori had already been making much of Mr Castillo's supposed Marxism. Billboards across Lima encourage people to vote against communism. On May 25th, after the massacre, she accused him of having ties to the militants she considers responsible, and thereby of threatening her father's legacy. Mr Castillo denies any such connections. His supporters say he is not a communist. But a newly elected congressman from Free Peru, Guillermo Bermejo, is on trial for terrorism for collaboration with the Shining Path 13 years ago. (He calls the accusations "pure fantasy".) He has been taped saying that if his party takes power, "we're not going to give it up...we prefer to stay to establish a revolutionary process in Peru." Mr Castillo has not rebuked him.

Ms Fujimori has problems of her own. She has been arrested three times and spent more than a year in prison in pre-trial detention on charges of accepting illegal campaign donations. She was released a year ago as part of a scheme to curb the spread of covid-19 in jails. The Castillo campaign argues that Ms Fujimori would turn the state into a patronage machine to benefit the rich and well-connected. Ms Fujimori says that she is innocent and the victim of political persecution.

Whoever wins on June 6th will face a mistrustful population and a fractured Congress, with ten parties splitting the 130 seats in the unicameral legislature. Thanks to a series of scandals and political feuds, Peru has rattled through four presidents in the past five years. This election may not end the instability. ■



Myanmar after the coup

Quaking money-makers

SEOUL, SINGAPORE AND TOKYO

Regional investors are having doubts about the military regime

WHEN TANKS rumbled into Naypyi-daw, Myanmar's capital, on February 1st, the man who sent them there, Min Aung Hlaing, the commander-in-chief of the armed forces, tried to offer the public reassurance. Though the civilian leadership had been supplanted by men in fatigues, the coup, he suggested, would be good for the economy.

It was not an absurd claim: the previous military-backed government, in power from 2011 to 2016, was considered more solicitous and efficient by many businessmen than the democratically elected one that followed it. And although previous stints of military rule had seen America and other Western countries impose sanctions, many Asian investors had ignored them and piled into what had seemed a promising market. Some 90% of the total stock of foreign investment in Myanmar comes from other Asian countries. If businesses around the region could be persuaded to keep funnelling money to the country, the general's boosterism could conceivably prove correct. But the initial evidence suggests they are not quite as

gung-ho as they used to be.

In response to the coup, several firms are cutting ties with two big conglomerates owned by the army. Lim Kaling, a prominent Singaporean businessman, has said he will sell his stake in a tobacco joint venture with one of the conglomerates, Myanma Economic Holdings Limited (MEHL). Kirin, a Japanese brewer, has said that if it cannot find a partner to buy MEHL's stake in its joint venture in Myanmar, it will have to consider leaving the country. The Asian Development Bank has suspended new grants and loans while Japan, Myanmar's biggest donor in 2019, has put new aid projects on hold.

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Many other Asian firms are packing their bags, although relatively few tie their move explicitly to the coup. Some 11% of the more than 180 Japanese firms surveyed in April by a group of foreign chambers of commerce said they had terminated their operations in Myanmar. The country has become an extremely difficult place to do business (see next article). Internet shut-downs, staff shortages and random violence meted out by the security forces have forced many workplaces to close. More than two-thirds of the firms surveyed said they had curtailed their activities; income had declined for nearly half.

Many of these companies are staying put, nonetheless. In fact, the junta insists that Myanmar will attract \$5.8bn in foreign investment this year. That may be fanciful, but several of the countries that are the biggest sources of investment are not themselves democracies, including China, Thailand and Vietnam. Companies from these places would not necessarily be put off by the coup alone.

Some firms draw a distinction between doing business with the government and with the Tatmadaw, as the armed forces are known, even though the two are now one and the same. The Korea Land and Housing Corporation is a South Korean government agency that formed a joint venture with the construction ministry in 2019 to build a new industrial park near Yangon, the commercial capital. Kwak Hwan-gun, who runs the agency's operations in Myanmar, rejects the idea that, owing to the coup, the

▶ state's share of any profits will flow to the army. "I don't know where you heard that the military benefits from this but it's totally fake news," he insists. By the same token, Kang Ho-bin of Sun&L, a South Korean firm that has a transport business with RT, a state-owned firm, insists that some government departments have managed to evade the generals' clutches.

Some businesses take their cue from their home government. For decades the Japanese authorities have argued that economic and diplomatic engagement can nudge the generals in the right direction. State agencies and investment firms have forked out billions of dollars of grants and loans to support Japanese businesses venturing into Myanmar. Some Japanese diplomats admit that the coup shows that the government needs to think again. Yet Japan frets that if it abandons its projects, China will swoop in, says Kitaoka Shiniichi, the president of Japan International Cooperation Agency, the state aid agency.

Debate about how exactly businesses should respond rages in South Korea too. Some firms argue that withdrawing altogether would hurt ordinary Burmese. Posco International, an affiliate of Posco, a South Korean steelmaker, has operated an offshore gasfield in Burmese waters in a consortium with Myanmar's state oil and gas company since 2013. The National Unity Government (NUG), a government-in-exile composed of MPs unseated by the coup, has asked Posco International and other foreign energy firms to suspend payments to the government until democracy is restored. Oil and gas is the single biggest source of revenue to the state. But Posco International argues that halting production would turn off the lights for many ordinary Burmese. Two-fifths of the country's power came from gas in 2019—although just 20% of the gas from Posco's business is for domestic consumption.

There are no easy answers. The NUG suggests that gas companies should press on with production but should forward any money owed to the government to an escrow account, to be handed over when democracy is restored. Total, a French energy company, has said that would put their local employees at risk of prosecution and reprisals from the security forces. But on May 26th Total and Chevron, an American energy company, said they were suspending dividend payments to a Burmese pipeline company in which the state oil and gas group has a 15% stake. (They are still paying taxes for extracting gas.) Some lawmakers in America, meanwhile, want to take such decisions out of energy companies' hands by making it difficult for them to do business in Myanmar, wherever they are from. Far from creating an economic boom, the coup could result in an implosion. ■

Business in Myanmar

General disorder

YANGON

The junta struggles to restart Myanmar's stalled economy

IN MID-JANUARY Thaung Tun, who was then Myanmar's minister of investment, promised local and foreign business folk a swift recovery from damage wrought by covid-19. Plans for whizzier internet and renewable energy, he said, would bring opportunities they could once "only have dreamed of". Two weeks later the army launched a coup, bundling Mr Thaung Tun and other members of Aung San Suu Kyi's cabinet into detention. Some analysts now think the economy could shrink by as much as 20% this year.

Business-friendly technocrats of the type who once advised Thein Sein, the retired general who served as president until 2016, hold little clout in the new regime. The army has shut companies it believes are harbouring opponents, including many media firms, while also trying to force businesses it deems essential to stay open. The army is frightened by rolling strikes that have been organised in protest against the coup and the hundreds of killings its soldiers have carried out while putting down demonstrations. In March authorities in Yangon, the commercial capital, briefly detained branch managers from supermarkets across the city so they could remind them to stay on the job.

Four months after the takeover long queues continue to form at cash machines, which frequently run out of banknotes.



It cannot dispense confidence

People wait past dusk to get money, even though being out after dark increases the risk of running into trouble with soldiers patrolling the streets. In May an official from the central bank said that frightened citizens trying to withdraw their savings were in fact aiming to "disturb the country and create mistrust". The junta has asked banks to send it CD-ROMs containing records of all deposits and withdrawals.

The army had earlier threatened to fine or nationalise banks that did not get striking employees back to their posts. Quite a few have now returned. But the persistent threat of violence from security forces means many workers are frightened to be out and about for long. A Burmese employee of a South Korean bank was killed in Yangon on March 31st after soldiers fired on a company van that was taking her home after her shift.

Internet restrictions are making online commerce difficult. The junta started blocking all mobile internet in mid-March, in an effort to stymie demonstrations. In recent weeks it has started allowing access to selected online services, though social-media sites remain off limits. Investors were once keen on Myanmar's digital economy, which grew particularly swiftly during lockdowns imposed to control the spread of covid-19. They had previously piled money into local firms such as Frontiir, an internet service provider. Not any more. Telenor, a Norwegian mobile operator that began rolling out its service in Myanmar almost a decade ago, has written off the full value of its business in the country, at a cost of \$782m.

Restaurants and shops in the posher bits of Yangon have reopened, but customers remain sparse. A fruit-merchant in the city's Chinatown says that although it is getting much easier than it was to transport produce around the country, "there are far fewer buyers than before". A foreigner who runs a consumer-goods business in the city says he has yet to restart operations since deciding to down tools in February, in part because of worries about the safety of staff. "We are waiting to see what happens in the coming months, but it is hard to be optimistic."

Activists would like more businesses to take a stand against the regime. On May 12th Tom Andrews, the UN's rapporteur on human rights in Myanmar, said companies "should exert the maximum leverage on the military". More than 200 firms, local and foreign, have backed a joint statement calling for democracy and the rule of law. But the army has a history of violence against the staff of businesses that upset it, says an executive at a big foreign company. "Even as part of what appears to be civil dialogue with authorities, in official letters and phone calls, the threats are there: 'or else there will be consequences.'" ■

Politics in Bangladesh

Back in line

The government cracks down on a big Islamist group

THE MOOD was supposed to be jubilant when Narendra Modi, India's prime minister, visited Dhaka at the end of March to celebrate Bangladesh's 50th birthday. Instead 13 people died in clashes with police after thousands took to the streets to denounce Mr Modi, whose treatment of Muslims at home is unsurprisingly unpopular among Bangladesh's Muslim majority. Authorities have since arrested hundreds of supporters of Hefazat-e-Islam, the Islamist movement behind the demonstrations. The crackdown marks a change in strategy for Bangladesh's ruling party, the Awami League. It had spent most of the past decade courting this puritanical group.

Hefazat-e-Islam, which means "Protectors of Islam", formed in 2010 after Islamic teachers from the city of Chattogram (formerly Chittagong) united against plans to make inheritance laws more favourable to women. Before then the job of promoting Islam in politics had largely fallen to religious parties such as Jamaat-e-Islami and its mainstream ally, the Bangladesh Nationalist Party. This changed after Sheikh Hasina Wazed, Bangladesh's prime minister, took power for a second time in 2009. Her government dragged senior members of Jamaat—who in 1971 had supported Pakistan during the conflict that led to Bangladesh's independence—through a war-crimes tribunal.

Hefazat's influence increased enormously in 2013, when judges on that tribunal declined to sentence a high-ranking member of Jamaat to death. Hefazat's leadership decided that some of the Bangladeshis who protested against this verdict had insulted Islam. Hundreds of thousands of Hefazat's supporters marched on the capital to demand the hanging of atheist bloggers and the introduction of a new law on blasphemy. Instead of sending them packing, the government rushed to placate the mob. It brought charges against several writers accused of upsetting religious folk. It also set up a panel to police commentary on Islam.

The episode helped forge an unofficial alliance between Sheikh Hasina's government and Hefazat. Appearing to rub along with the group has lent the prime minister some credibility among the very religious (her father, Sheikh Mujibur Rahman, founded the Awami League as a secular party). Ali Riaz of Illinois State University says that indulging Hefazat has allowed

the League to signal that "we're against Jamaat, but not against Islam".

The government has adopted some of Hefazat's rhetoric and granted many of its demands. In 2015, when a string of atheist writers were murdered in the street, Awami League politicians implied that they had deserved it. Two years later the government revised school textbooks to remove poems and stories written by people whom Hefazat accused of promoting secularism. Authorities also declared that degrees handed out in Islamic schools were to be considered equivalent to masters qualifications from public universities, making

those who received them eligible for good government jobs.

The unlikely partnership has brought about a swift Islamisation of Bangladeshi society, says Mr Riaz. More children are schooled in madrassas. Religious leaders are growing less tolerant of interpretations of Islam that differ from their own. Not long ago few people discussed which school of Islamic jurisprudence they belonged to, let alone which sub-movement, says Mr Riaz. That has changed.

Attacks on religious minorities are growing more common, according to an American government report that was

Conservation in Australia

Humpback comeback

SYDNEY

Australia's whales are breeding like rabbits

LOOK OUT from a clifftop in Sydney around this time of year, and you may witness one of nature's great migrations. Between May and November some 40,000 humpback whales commute along Australia's eastern coast. It is a highway from their feeding grounds in Antarctica to the Great Barrier Reef, where their calves are born.

They were once much harder to spot. Europeans started slaughtering whales for their oil and bone soon after arriving in Australia, and did not stop for nearly two centuries. By the time hunting humpbacks was banned in the 1960s, there were scarcely 200 left in eastern Australia. Another population, off the continent's west coast, had dwindled to about 800.

Fortunately humpbacks are "the rabbits of the ocean", says Olaf Meynecke of Griffith University. They have bred prolifically since people stopped butchering them. Lately the number swimming near Australia has risen by more than 10% a year. Joshua Smith of Murdoch University says this rate of growth is "almost biologically implausible". The creatures may now be as numerous as they were before commercial whaling.

The federal government thinks it is time to remove humpback whales from Australia's list of threatened animals. "No other whale species has recovered as strongly," notes the environment department. Threatened creatures get extra funding and attention, and there is only so much of that. The government says that even if they are "delisted" whales will still be guarded by an environmental law that protects migratory species.

Whale-watchers worry that this is too hasty. Lots of threats are "about to bear down on these beautifully recovered



Leaps and bounds

populations", says Wally Franklin of the Oceania Project, an NGO which studies them. Humpbacks get caught in nets and struck by boats. Oceans are growing noisier and more polluted. So far this does not seem to have curbed their numbers. But scientists worry about climate change, which threatens the krill the whales feed on. They say the government should promise to monitor their populations, in case a crash comes.

Compared with other Australian creatures, however, the whale looks lucky. By one estimate Australia is flattening a stadium-sized area of forest and bushland every two minutes, threatening creatures such as the koala. Three billion animals were killed by enormous bushfires 18 months ago. All told, Australia is losing mammals faster than any other country, says the World Wildlife Fund, a charity. Not many get a comeback like the humpback.

published in May. Earlier this year a mob ransacked a Hindu village in Sylhet, in north-eastern Bangladesh. The gang included supporters of Hefazat and members of the Awami League's youth wing.

Lately Hefazat had come to believe that it was "indispensable" to the government, says Niaz Asadullah of the University of Malaya. Yet drumming up demonstrations against Mr Modi now seems to have been a miscalculation. The group's leaders appear to recognise that Sheikh Hasina, whose rule has become increasingly authoritarian, has always had the upper hand. Instead of encouraging supporters to protest against the arrests of its members, Hefazat's chief, Junayed Babunagari, has merely called on the government to release all those in custody.

Unlike the crackdowns which Sheikh Hasina has launched against other rivals, the goal on this occasion is probably not to eviscerate Hefazat but instead to bring it to heel. Factions keen to repair ties with the government are already gaining prominence within it. The incident has demonstrated that Hefazat can be tamed, says Mr Riaz. "But the ethos it has created is not going to go away." ■

Infections in India

The other side

DELHI

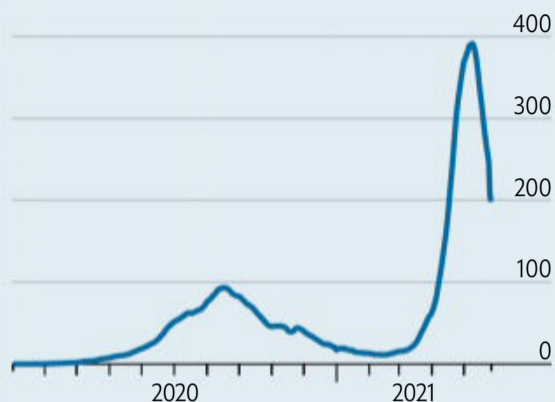
India's covid-19 crisis is finally beginning to ease

IN LATE MAY India passed two sad milestones in the struggle against covid-19. The official number of deaths from the pandemic crossed 300,000. Daily fatalities topped a record 4,500. Sadder still was the certainty that on both counts the true toll was many multiples higher. Across vast stretches of the country's interior there is little testing for the virus, and therefore few "official" cases or deaths. Epidemiologists agree that a full tally would put India far ahead of America and Brazil in the dismal rivalry for the country with the most people killed by covid-19.

Yet even India's faulty government numbers now give reason for hope. The parts of the country where counting is fairly reliable show a clear trend. The virus's vicious second wave is rolling back almost as fast as it rolled in. In early May India was recording some 400,000 new cases a day. This has now fallen below 250,000. The daily number of new cases in Mumbai, the country's commercial capital and one of the first places to see a surge, is about an eighth of its peak. In Delhi, the hard-hit capital, the share of covid-19 tests proving

Over the top

India, covid-19, daily new confirmed cases
Seven-day moving average, '000



Source: Johns Hopkins University CSSE

positive in April reached a frightening 36%. This has tumbled below 2%. The corresponding national "positivity rate", heavily weighted towards cities where more tests are performed, has fallen from 24% to less than 10%.

In the main cities at least, the desperate fight to get oxygen to gasping patients has been won. Daily demand for liquid medical oxygen (LMO), which reached some 9,000 tonnes—three times the demand during India's first peak in September—has now begun to drop, according to a government task-force.

Jokers point to another indicator of improving fortunes. Leaders whose visibility faded as the tragedy mounted have suddenly grown less camera-shy. "You know cases are going down because...Modi has reappeared," jested one tweet, referring to the prime minister, Narendra Modi, who recently appeared to choke with emotion during a televised Zoom call with doctors in his parliamentary constituency.

But if panic is beginning to recede, the crisis is far from over. The wave started in the west of the country, broadly speaking, and has still not finished sweeping eastwards. Infections in Chennai, capital of

Tamil Nadu in the far south, are only just beginning to peak. "We can't really be sanguine because it's like an agglomeration of peaks," says Ambarish Satwik, a surgeon in one of Delhi's biggest hospitals. "It's going to move centrifugally from cities to villages, so it'll drive on for a bit."

Across India's poor, crowded Gangetic plain, where doctors and statistics are most sparse, anecdotal evidence suggests that the grim reaper has come, snatched lives in every village and mostly then marched on again. It has left whole communities emotionally and economically shattered. A team of reporters from *Dainik Bhaskar*, a Hindi-language daily, counted more than 2,000 corpses hastily disposed of along a 1,100km stretch of the Ganges.

The victims are not only the very poor. A teachers' union in Uttar Pradesh, India's most populous state, says no fewer than 1,621 out of the 800,000 teachers who work in its public schools died in the past month. At a recent conclave of state-owned banks, which employ more than half a million people, managers said that around one in five staff had contracted covid, and that more had died of the illness in the past six weeks than in the preceding year of the pandemic.

The wave has left scars. While India's poorest, perennially battered by droughts, floods and capricious governments, among other plagues, have been forced to bear the calamity with stoicism, its middle class has been made to feel vulnerable as never before. Even the most privileged found themselves locked out of overwhelmed hospitals, or obliged to queue for vaccines along with hoi polloi. Their suffering continues. On social media, urban Indians are no longer messaging desperate pleas for oxygen, or for drugs that were widely and wrongly prescribed for covid-19. Now the demand is for medicine to fight mucormycosis or "black fungus", a deadly infection that has particularly aff-▶▶



Pretty graphic

▶ licted diabetics who were too liberally dosed with steroids during treatment.

Public frustration over the scale of the tragedy might have been soothed if the government's vaunted campaign to vaccinate Indians had been a success. Instead it has failed spectacularly. During the height of the surge in infections the number of people receiving shots did not rise to meet the threat, but instead withered from 3.5m a day to barely 1.5m because the government had failed to plan properly or to secure enough vaccine. Millions of Indians who received a first dose now wonder

when or whether they will receive a second. Many millions more—some 89% of India's 1.4bn people—have received no dose at all. Their wait may be long: the IMF predicts that by the end of this year fewer than 35% of adults will have received a jab.

The government, belying its own talk of determination to secure more vaccines, still will not license proven foreign ones such as those of Pfizer-BioNTech and Moderna. Bureaucrats refuse to waive indemnity clauses, as dozens of other countries have done, leaving the companies to face the risk of endless, costly litigation in In-

dia's overburdened courts.

In cities, where more people are able to get a jab, the vaccination campaign may have helped bend the current wave. But the main cause of the decline in numbers, aside from the virus's own natural trajectory, has been the imposition of tough local lockdowns. Mr Modi's government, wary of hurting India's badly wounded economy even more, had delayed these measures as long as possible. But in the end it was strict curfews, enforced by public fear of the rampaging disease as much as police muscle, that have saved most lives. ■

Banyan Beached

As China grabs more of the South China Sea, it is losing the Philippines

THE DISCOVERY in March of 200-odd Chinese vessels around a reef in the "exclusive economic zone" that extends 200 nautical miles from the Philippines' shores has brought near-daily protests from its foreign and defence ministries. Whitsun Reef, which the government calls the Julian Felipe Reef, is one of many that make up the Spratly Islands in the middle of the South China Sea. It is three times closer to the Philippines than to China, which lays wild and unsupported claim to nearly the whole sea.

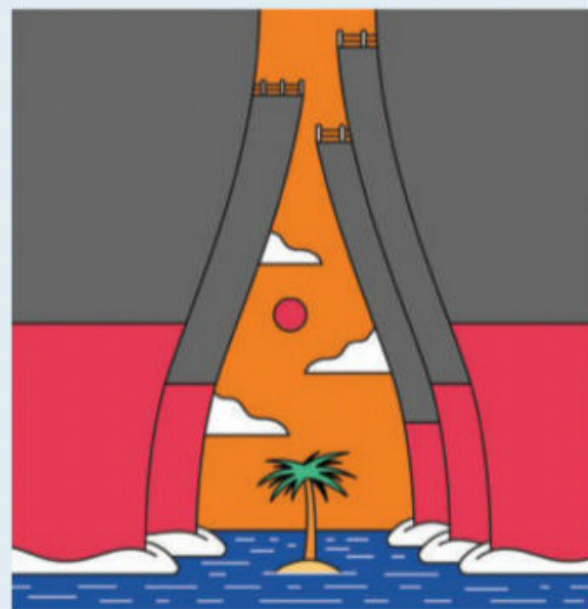
The swarming of Whitsun, led by "grey zone" militia vessels masquerading as fishing trawlers, is the latest move in China's expanding occupation of contested specks in the South China Sea. This time, most of the Philippine government appears determined not simply to roll over. As the defence secretary, Delfin Lorenzana, put it: "While we acknowledge that China's military capability is more advanced than ours, this does not deter us from defending our national interest, and our dignity as a people, with all that we have." The foreign secretary, Teodoro "Teddy Boy" Locsin, who has a notorious trigger thumb on Twitter, went further. "China, my friend," he wrote, "how politely can I put it? Let me see... O...GET THE FUCK OUT."

Strikingly, the member of government most reluctant to criticise China is the president, Rodrigo Duterte. After Mr Locsin's outburst, the coarse-talking Mr Duterte declared that, within his cabinet, only he had a licence to curse. He also found ways to praise China, including for the supply of much-needed vaccines against covid-19.

On paper, says Julius Trajano, a political analyst, the president is the chief architect of foreign policy in the Philippines. After he took office in 2016, Mr

Duterte tilted strongly towards the great power to the north. He refused to press a ruling in the Philippines' favour from an international tribunal, which rubbished China's sweeping claims in the South China Sea. On his first trip to Beijing as president to meet his counterpart, Xi Jinping, he declared that it was "time to say goodbye" to the United States. For good measure he announced a military "separation" from the Philippines' ally and former colonial power.

At the time, Mr Duterte was quick to boast of the fruits of his pro-China tilt: promises of big investments in the Philippines' decrepit infrastructure as part of China's Belt and Road Initiative (BRI); the return of Filipino fishermen to the waters around Scarborough Shoal, into which China had muscled in 2012; and the prospect of Chinese help in exploring for hydrocarbons in Philippine waters. Yet, says Jay Batongbacal of the University of the Philippines, it has nearly all come to naught. BRI projects are either small (a couple of bridges in Manila, the capital) or controversial (dams in nature reserves).



Fishermen say they are frightened to return to Scarborough Shoal, given past rammings by Chinese vessels. Maritime tensions preventing exploration for oil and gas, Mr Batongbacal argues, have influenced energy policy, leading to an overemphasis on coal. A flood of Chinese nationals to Manila's offshore gambling industry has brought a host of social problems in its wake.

Mr Duterte's insistence that relations remain good is motivated by hopes of deliveries of Chinese vaccines, on which his legacy now rests (he steps down next year). To date, supplies have been paltry. And despite the pandemic's ravages—more than 20,000 dead—Filipinos are sceptical of Chinese jabs.

The president must realise that his tilt towards China has been a failure. The reverse of the coin is a renewed tilt towards America. A year ago Mr Duterte announced the cancellation of the bilateral Visiting Forces Agreement (VFA), which enables American troops to be deployed in the Philippines. Yet twice since then he has granted an extension allowing the VFA to continue, while Mr Lorenzana and Mr Locsin argue for its permanent retention. Meanwhile, Mr Duterte has at last begun to champion the arbitral ruling against China's claims, including to Scarborough Shoal.

The Philippines is repairing its relationship with America. In reality, it was never sundered—foreign and security ties run deep. Still, the administration of President Joe Biden has signalled support. It has increased joint military exercises and has made clear that its mutual-defence treaty covers coming to the Philippines' aid, even in the event of an attack by China's unofficial militias. China may have won Whitsun Reef. But it has lost the Philippines.





Inequality in education

Serve the rich

HONG KONG

It is becoming even harder for poor students to get into a good university

AFTER XIONG XUAN'ANG gained the capital's best score in China's university-entrance exam in 2017, he was interviewed by Beijing's media. The son of diplomats, Mr Xiong acknowledged that his upbringing had been privileged. "All the top scorers now come from wealthy families," he said. "It is becoming very difficult for students from rural areas to get into good universities." His honesty drew much praise online.

Since 1998, when China began a huge expansion of university enrolment, the number of students admitted annually has quadrupled to nearly 10m. About one third of high-school students now proceed to undergraduate courses. Data are patchy, but experts agree that the share of rural students at China's best universities (the top 1%) has shrunk. Only 0.3% of rural students make it into them, compared with 2.8% of urban ones. Most other tertiary institutions are far inferior.

Around the world, students from poor backgrounds struggle to compete with their richer counterparts. In China the divide is particularly stark. The main cause is

the *hukou* system, which makes it very difficult to gain free access to state-provided services outside the place where one's household is registered. This means that in cities, the children of migrants from the countryside are usually shut out of local state schools. They have to attend shoddy private ones that charge fees, or go to their parents' village for an education that is free but also bare-bones.

The situation is made worse by the way that university places are allocated. The best universities are concentrated in the biggest and richest cities such as Beijing and Shanghai. They offer a disproportionate number of places to students with local *hukou*. China's two most prestigious universities, Peking University and Tsinghua, are in Beijing. Their acceptance rate is around 1% for local students but only a tenth of that for applicants from places

outside the capital, according to state television. More students from Beijing are admitted to Tsinghua every year than the combined number of successful applicants from Guangdong and Shandong. The population of those two provinces is ten times bigger than Beijing's.

In a paper published in 2015, scholars from Tsinghua and Stanford University said students with *hukou* in the poorest fifth of counties were seven times less likely than their urban counterparts to get a university place and 14 times less likely to attend an elite one. In those counties, the odds were even more stacked against girls and ethnic minorities. "It is really, really clear that it is now much, much harder for a poor, rural kid to get into a good university," says Scott Rozelle of Stanford. He estimates that around 75% of urban children go to university compared with 15% of rural ones. Nearly 80% of children under 14 have rural *hukou*. But writing in 2017, Wu Xiaogang, now of NYU Shanghai, a Sino-American joint-venture university, said less than 17% of students in elite universities had rural household-registration before taking up their places. The pattern has not changed since then, says Mr Wu. "If anything, it may be even worse now."

That is because inequalities in society are becoming more pronounced. The children of wealthy families have access to the best schools as well as to after-school tutoring and extra-curricular activities. Their parents can afford homes in good catchment areas. China offers nine years of free, ▶▶

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► compulsory education, but fees are levied at state-run senior secondary schools. In poor areas, charges can amount to more than 80% of net income per person, one of the highest such burdens in the world. Some students prefer to start work: a typical unskilled factory hand can earn in a month what a poor farmer earns in a year.

The national university-entrance exam was suspended for the final decade of Mao Zedong's rule. Since its relaunch in 1977, universities mostly have relied on test scores for admission. In 2003 China began to allow some universities to recruit students with special talents such as in sports and arts. Again, the wealthy have been the main beneficiaries: only they can afford to pay for the training needed.

For decades state-funded feeder schools in poorer areas played a vital role in offering good students from the countryside a chance to get into university. But many have closed as a result of migration into cities. Meanwhile, competition has grown for places in good senior secondary schools. Ma Hang attended primary school in his home village. But the best junior high school in the county would not accept village students unless they paid extra fees or had powerful connections. His parents managed to use such a connection to get him into the school. He says that set him on a path that led him to a feeder high school and then to university.

Rural children in China face obstacles at every stage of development. Babies are more likely to be undernourished and lack parental attention. By the time they enter primary school, many have ailments such as anaemia, poor vision and worms. Around 60% of students from the poorest counties suffer from at least one of these afflictions, says Mr Rozelle.

Those who, despite the odds, make it to elite universities often feel socially isolated. In 2020 a student from the countryside took to social media to describe being “lost and confused” at university after leaving the “straightforward environment” of school, where passing tests was the focus. More than 100,000 students, many with rural backgrounds, weighed in, sharing their own experiences of feeling like misfits and lamenting their job prospects. They coined a new term in Chinese: *xiao-zhen zuotijia*, meaning “small-town swot”.

Wang Jianyue, a country-born physics whizz, can relate to their complaints. He chose to study finance at university, thinking it would be easier to find a job with such a specialism. It was only after he saw several of his classmates get internships at big financial firms using their parents' connections that he “truly understood the gap” between himself and them. Mr Wang changed his focus to computer science. Unlike some other small-town swots, he has, to his relief, got a job offer. ■

Wedding rites

Will you mortify me?

DALI

Officials are trying to curb an old custom that has got out of hand

NERVES ARE COMMON in the run-up to nuptials. Couples in some parts of China must brace for torment. In a ritual called *naohun*, or “disturbing the wedding”, guests haze them. Often this involves forcing the man to strip to his underwear and don stockings or a bra. Friends then tie him to something and slather his body with sticky substances such as soy sauce and eggs. Firecrackers, taped to flesh, are sometimes set off; injuries ensue. Women can be targeted, too. *Naohun* allows people to kiss the bride and bridesmaids and even to grope them.

Naohun rites were not always intended to humiliate. They began centuries ago with the aim of helping to put newlyweds—who often barely knew each other—at ease. Relatives would gently tease the couple in their bridal chamber, alluding to intimate acts. This served as a form of sex education. Rituals involving the groom's father, such as making him carry his daughter-in-law on his back, were once cheered as a sign that she would be well-treated by her husband's family.

But in recent times, *naohun* has become an excuse to be rowdy, lewd or even physically abusive. In 2017 NetEase, an internet giant, found 142 cases in the previous five years of hazing so outrageous that it had featured in stories in China's media. Half of the incidents involved binding and beating. In 80% of them, grooms were the victims. Only five involved hazing of the bride, but cases of sexual harassment may often go unreported.

The custom has faded in big cities but remains popular elsewhere. In the NetEase sample, the provinces of Shandong and Yunnan accounted for 60% of cases. The practice upsets the government, which wants to create “civilised cities”. Last year it called for an end to “unhealthy marriage practices”. These included *naohun*, “extravagance and waste” at parties and “sky-high” *caili*—cash given by the groom to the bride's family. In April the central authorities designated 15 areas in ten provinces as pilot zones for wedding reform.

Local governments have responded with a flurry of directives. In Inner Mongolia, in the north, weddings must now be hosted by local “red-and-white councils” run by Communist Party branches (red stands for weddings, white for funerals). In some provinces, newlyweds must sign a pledge to eschew “uncivilised” *naohun*. A county in Henan province has capped *caili* at 30,000 yuan (\$4,600)—less than a third of the going rate. Others have limited the size of banquets to 30 tables. Fines have been specified for rule-breakers.

Even before the central government began its campaign, the city of Dali, a popular wedding spot in Yunnan, had begun stationing urban-management officers at well-known *naohun* locations. Yang Pinkang, a 26-year-old local who got married in October, had no *naohun*. “My friends were disappointed,” Mr Yang says. “But am I not meant to look my best for my wife on my wedding day?” He says residents have gone cool on *naohun* since the drowning of a groom who was thrown into a lake. Mr Yang recalls how his uncle set his aunt's wedding dress on fire after friends dared him to crawl under it and light matches.

No more such recklessness in Shandong province, officials hope. “Let us all be more polite,” one city there, Zouping, decreed in March. “Help weddings go back to being warm and romantic.” Consider it a marriage demand, not a proposal. ■



A part of tying the knot the government wants to bin

Chaguan | China's revealing Afghan strategy

A suspicious China prepares for America to pull out of Afghanistan



ON MAY 9TH China's foreign ministry was asked to comment on an atrocity in the Afghan capital, Kabul. Terrorists had detonated a car bomb outside a girls' school, then two more bombs to kill pupils running for safety. At least 68 people had died, most of them children. The attack was aimed at girls from a Shia minority that is often targeted by Sunni Islamist groups, which have brought much misery to Afghanistan. Today such groups are jostling for blood-soaked advantage ahead of a full withdrawal of American forces, at the latest by September 11th this year, as ordered by President Joe Biden. China's diplomats could have responded to the latest violence in several plausible ways.

It would have been reasonable for the foreign ministry to tell the largest militant group, the Taliban, to rein in the mayhem, for China enjoys growing leverage over the Taliban's leaders. That may seem counterintuitive. China's foreign minister, Wang Yi, has expressed hope that future Afghan governments will embrace moderate Islam: an apparent rebuke of Taliban-style zealotry. Across the border, in China's north-western region of Xinjiang, officials have demolished mosques and banned young people from public prayers. In all perhaps a million Muslims, most of them from the Uyghur minority, have passed through re-education camps in Xinjiang, set up to cure them of excessively religious or "backwards" thinking, and to turn them into biddable workers, loyal to the Chinese motherland.

But the Taliban can be both fanatical and pragmatic, it turns out. Their leaders hope to rule Afghanistan soon, a quarter of a century after they first subjected the country to a reign of pious terror. Especially over the past three years, say scholars and diplomats in Beijing and other capitals, links between the Afghan Taliban and China have grown remarkably. Anxious for political recognition and economic backing from their giant neighbour, Taliban delegations have approved of Chinese plans to build motorways between Afghan cities. They claim to support a Chinese-funded project near Kabul to create one of the world's largest copper mines, which has been stalled for years by concerns about ancient Buddhist ruins on the site and by fears of militant attacks.

Privately, it is said, the Taliban have signalled that they do not care about Xinjiang. That relates to China's main interest in Af-

ghanistan: to prevent that unhappy country from sliding into chaos and becoming a haven or transit corridor for Uyghur militants who, China is sure, lurk in the region. Those fighters, China believes, include some with combat experience in Syria, some trained by Iran, and others who hope to enter Xinjiang through lawless tribal regions of Pakistan.

It would have been reasonable, too, for China to have asked Pakistan to help stem the bloodshed. Pakistan is the Taliban's patron, and has prodded the Afghan militants to establish ties with China. Pakistan likes to be useful to China, its most important sponsor. But the ministry chose a different response. After deploring the murder of the schoolgirls in Kabul, its spokeswoman, Hua Chunying, singled out America for blame. She charged that the "abrupt" announcement of America's exit from Afghanistan had "led to a series of explosive attacks throughout the country". She called on foreign troops "to pull out in a responsible manner and avoid inflicting more turmoil and suffering on the Afghan people".

This is a new criticism. Chinese scholars and state media have spent years accusing American forces of straying beyond their original mission to eradicate al-Qaeda and of spreading turmoil with their naive dreams of Western-style nation-building. More recently, they have asserted that America will surely leave behind covert operatives after its troops leave, in part to make trouble for China. In short, China believes that America has stayed too long in Afghanistan, is departing too hastily and is not really leaving at all.

That line of argument is tangled enough. Making it more so, Chinese officials now call Afghanistan an area of possible co-operation with America, along with climate change and efforts to curb nuclear proliferation. When pressed for detail, including at a recent meeting with American counterparts in Anchorage, Chinese envoys are vague. A few years ago China and America did jointly train Afghan diplomats and police. These days China stresses the importance of its Belt and Road Initiative: how the infrastructure-building scheme can promote Afghan development and thus stability, such as by connecting the country to the sea via Pakistan.

Afghanistan once saw remarkable co-operation. Early in the war on terror, President George W. Bush's administration designated a Uyghur group, the East Turkistan Independence Movement (ETIM), as terrorists. Chinese agents were allowed to interrogate Uyghurs detained in Guantánamo Bay. They told one Uyghur he was lucky to be in American hands, since "as soon as they got him back to China, he was dead", his lawyer later told Congress. Such joint action is unthinkable now: the two sides are so far apart on Xinjiang. In 2020 the Trump administration delisted ETIM as a terror group, expressing doubts that it still existed. China says it is a grave menace.

To China, nothing matters more than stability

China sees its positions as coherent. Singling out America as a troublemaker is logical. It also distrusts the Taliban, Pakistan and Iran, but those actors have reasons to bow to China's will, so do not need public scolding. In contrast, America is a dangerous rival that has made bad mistakes, so is an ideal target for criticism. China may support regional or UN peacekeeping missions in Afghanistan, if its neighbour seems on the brink of civil war. But it will not send its own troops to keep order, at least under a Chinese flag, because its neighbour is a "graveyard of empires". Afghanistan's case is revealing. China is emerging as a great power that—to an exceptional degree—trusts in cold, hard economic and security interests alone. To China, self-interest is wisdom. ■



Israel and Palestine

A process in pieces

JERUSALEM

The failing peace process has left the Holy Land looking like one unequal state

BY THE STANDARDS of the peace process, Oranit is not a terribly contentious Jewish settlement. The Palestinians previously accepted that this hilly town of low-slung homes in the occupied West Bank would remain part of Israel in a future two-state solution. In one negotiating session their disagreements amounted to an area of about 400 square metres. It has grown into a commuter town, half an hour by motorway from Tel Aviv, and rates nine out of ten on Israel's "socioeconomic index", a measure of education, wealth and employment.

Look east across the sun-baked hills and one sees Azzun Atmeh, an impoverished Palestinian village. No easy commutes for its residents: it is almost fully encircled by settlements and the imposing separation barrier. This is theoretically part of a future Palestine, but right now it is Israel, with most of its land designated as "Area C", where Israel holds civil and military jurisdiction.

The question of how to divide this land has been more or less answered, yet the parcelling out to two states has not come.

Instead it remains under Israel's control—a single state in which Jewish Israelis and West Bank Palestinians living a stone's throw from each other hold very different rights and face very different prospects.

Almost three decades have passed since Yasser Arafat, the late Palestinian leader, and Yitzhak Rabin, Israel's prime minister at the time, shook hands on the White House lawn in 1993 after signing the Oslo accords. That hopeful moment cemented a formal peace process that would create a Palestinian state and end half a century of conflict. It was meant to happen within five years. Hope, alas, gave way to despair. It has now been more than five years since the parties even sat down to talk.

Each time there is a bout of bloodletting between Israelis and Palestinians, it is *de*

rigueur to urge them back to the negotiating table. But such rhetoric obscures why the peace process has failed. Decades of meetings produced a mountain of maps and policy papers. The outline of a two-state solution is well known to all. The problem with the peace process is not a lack of process, it is that process became a substitute for peace.

To continue that process in hope of a breakthrough is to indulge a fantasy. It pretends that conditions on the ground—the steady growth of Israeli settlements, Israel's ever-more entrenched control of Jerusalem, the schism between the West Bank and Gaza—are merely obstacles to negotiate around rather than insurmountable roadblocks. And it ignores shifts in politics and public opinion. Most Palestinians and a plurality of Israeli Jews oppose the two-state solution, as do two of the three governments between the river and the sea.

It is time to admit the land-for-peace paradigm has failed. Moreover, it has often been unhelpful and counterproductive. The theoretical existence of a peace process gave Israel cover to entrench an occupation that looks permanent, and contributed to the rot in Palestinian politics. What exists today, and will exist for the foreseeable future, is really just one state.

The Palestinian Authority (PA), the self-governing edifice set up after the Oslo accords, was meant to exist "for a transitional period not exceeding five years". That deadline came and went, but the parties came close to a deal in 2000 at the Camp

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► David summit, two weeks of sequestered talks between Ehud Barak, then the prime minister of Israel, and Mr Arafat. Conventional wisdom at the time blamed the latter for walking away; subsequent assessments offered a more muddled picture.

Regardless, the failure at Camp David gave way to the brutal second *intifada*, or Palestinian uprising, which soured many Israelis on making peace. Still, more negotiations followed: the “road map for peace”, the summits at Taba and Annapolis and Sharm el-Sheikh.

For the past decade these efforts have been listless. Barack Obama’s two attempts at peacemaking lacked even memorable names. The second segued into a brutal 51-day war between Israel and Hamas, the violent Islamist group that rules Gaza. There have been no direct talks since 2014. Donald Trump’s “deal of the century” was a curious effort to solve the conflict without input from Palestinians.

His successor, Joe Biden, seems disinclined even to try. He played at best a secondary role in broking a ceasefire between Hamas and Israel when they fought earlier this month. Then he dispatched Antony Blinken, his secretary of state, for a round of talks. The focus was to be aid for Gaza. The peace process was not on the agenda.

Unsettling

In 1968 one of Mr Blinken’s predecessors, Dean Rusk, sent a sharp memo to the Israeli embassy in Washington. He noted reports that Israel was establishing civilian settlements in the newly occupied West Bank. This not only violated the Geneva Conventions, Mr Rusk wrote, but also “creates the strong appearance that Israel... does not intend to reach a settlement involving withdrawal from those areas”.

Today more than 440,000 Israelis live in West Bank settlements, a figure that has grown roughly fourfold since the Oslo accords were signed. The world has done nothing to halt their growth. Diplomats have accepted the fiction that the settlements are temporary, a claim belied by billions of shekels invested in homes and infrastructure over decades. Some settlers have now lived in the West Bank for two generations.

Negotiators insist that big settlement “blocs”, which house about three-quarters of the settlers in the West Bank, are no obstacle to a peace deal. Yet one of the largest, Ariel, sits almost halfway across the width of the West Bank. The blocs carve ribbons and punch holes in the outline of a Palestinian state (see map on next page). More than 100,000 Israelis live outside them, in isolated communities that would need to be evacuated—more than 12 times the number removed from Gaza during Israel’s disengagement from that territory in 2005.

Settlers wield a level of political power

today they did not hold back then. Five parties in the Knesset (Israel’s parliament) are ideologically committed to expanding settlements deep in the West Bank. Together they hold 56 seats, five shy of a majority. Even members of the Labour party have urged Israel to annex large chunks of the West Bank and end the fiction of “temporary” settlement. A poll conducted last year by the Israel Democracy Institute found that just 30% of Israelis opposed doing so.

Mr Trump’s peace plan was widely mocked. But the map it offered, an archipelago of Palestinian territory connected by roads and tunnels and pockmarked with Israeli enclaves, was probably a realistic vision of how a peace agreement would look. (It still did not satisfy the settler movement, for which the very existence of a Palestinian state is anathema.)

His plan did not offer even the pretence of a capital for the Palestinians in East Jerusalem, which they have long sought (the area is largely Palestinian). Instead they would house their future government in dismal suburbs on the far side of Israel’s concrete separation barrier. That too reflects current trends in Israeli politics. No big party accepts the city’s division.

Jerusalem is now ringed with settlements, home to more than 200,000 Israelis, making it impossible to give the Palestinians a contiguous capital and difficult even to connect the northern and southern halves of the West Bank. Right-wing Israeli groups are using courts to try to expel Palestinians from their homes in Arab-majority neighbourhoods. The settler movement is not shy about its objectives. Each hill it claims in the West Bank, each home it seizes in East Jerusalem, makes it harder for Israel to cede the occupied territories in a final agreement with the Palestinians.

The settlers’ spoiling is working, but they need not worry, anyway: there is no Palestinian leader to strike such a deal. Mahmoud Abbas has been president since 2005, serving an endless four-year term. Two-thirds of Palestinians are unhappy with his performance; 68% want him gone.

Mr Abbas rules by decree, but he has no legitimacy to speak on behalf of Palestinians, half of whom are outside his remit anyway. The community in East Jerusalem feels adrift and leaderless, caught between the PA, which has no authority there, and the Israeli government, which most Palestinians are ineligible to vote for. The 2m in Gaza live under the rule of Hamas, which offers, at best, a lengthy truce with Israel.

Out of mind

In Israel, meanwhile, the peace process is no longer a salient political issue. That is largely thanks to the long-serving prime minister, Binyamin Netanyahu. He tepidly endorsed a two-state solution in 2009, but has spent much of his career working to prevent it. Foreign diplomats often say the occupation is unsustainable. In the short term, Mr Netanyahu has proved them wrong. The security situation is fairly calm, the economy hummed before the pandemic and Israel’s diplomatic position is better than ever. Last year it established overt ties with four Arab states.

With no pressure to resolve the conflict, most Israeli parties either oppose the two-state solution or ignore it. The Labour party, once the beating heart of Israel’s peace camp—it held a 44-seat plurality at the time of the Oslo accords—won just seven seats at the last election.

A poll of Palestinians in March found that just 40% still support the two-state solution, down from 51% in 2016 and 56% in 2011. Support among Israeli Jews dropped from 53% in 2016 to 42% last year. Five years ago 82% of Israeli Arabs backed the idea; today 59% do.

Yet Israelis and Palestinians are not sure what they do support (see chart). Some desire a single, binational state, others an apartheid state. There are Palestinians who hope to throw all the Jews into the sea and Jews who hope to throw all the Palestinians into Jordan. The most popular choice after a two-state solution is to believe there is presently no solution.

It need not be a binary choice between ►►

We can't work it out

Israelis and Palestinians, % supporting



Source: Palestinian Centre for Policy and Survey Research

Two-state solution



*Includes Jewish Israelis and Arab Israelis

▶ one state and two. Some Israelis and Palestinians talk of a confederation that would split the difference. Both communities could fulfil their national aspirations, but with shared institutions and a porous border. Both Mr Abbas and Reuven Rivlin, the outgoing Israeli president, have expressed openness to such an arrangement.

It would face obstacles, not least that it requires creating a system of governance that does not exist in the world today. A bi-national state would have to overcome a century of hostility. Such challenges are often cited as a reason to support the status quo: a two-state solution is desirable because the alternatives would be hard. After three decades of failed negotiations, though, this argument sounds hollow.

In his final weeks as secretary of state, in 2016, John Kerry warned that Israel was heading for a permanent occupation, a reality he described as “separate but unequal”. His choice of words, a reference to Jim Crow in America, was meant to jolt listeners. Yet it was less a prediction of the future than a description of reality. The four groups of Palestinians in the Holy Land all face formal and practical discrimination compared with Israeli Jews.

Start with Arab Israelis, as Israel calls them, or Palestinian citizens of Israel, as many (though not all) call themselves. They hold full citizenship, if not quite full rights. A “nation-state law” passed in 2018 reserved the right of “national self-determination” for Jews alone. The poverty rate for Arabs, 36%, is double that of Jews; their average monthly income in 2018 was 34% lower. The Supreme Court has upheld the right of small towns to screen residents for “social suitability”, a practice that has been used to bar Arabs from moving in.

Palestinians in East Jerusalem exist in a sort of limbo. Most refuse to seek Israeli citizenship, waiting for a solution that never comes. They risk losing their Israeli residency cards if they leave the city; more than 14,000 have been revoked since 1967.

A Palestinian born a few kilometres to the north, in Ramallah, cannot visit Jerusalem without a permit. Life in the West Bank is largely confined to the one-third of its territory under a measure of Palestinian control. Hundreds of checkpoints restrict freedom of movement.

Then there is Gaza. To be born there, since 2007, is to be born in a place one cannot easily leave. Israel permits only select categories of Palestinians to cross its border, while Egypt allows only a few thousand travellers a month (and some months none at all). Almost half of Gazans are unemployed and 80% need help from aid groups to survive.

These divisions occasionally collapse during times of trouble, as they did this May, when unrest in Jerusalem led to rocket fire from Gaza, riots inside Israel and



protests in the West Bank. In quieter times, though, Palestinian leaders are happy to help perpetuate divisions among their people in order to preserve their fiefs.

Several years ago your correspondent met Mahmoud Zahar, one of the founders of Hamas, in Gaza. In the West Bank, he said, Palestinians faced the routine threat of having their homes demolished by the Israeli army, often for failing to obtain building permits that are nigh impossible to get. Not so in Gaza: “Since Hamas took power,” he said, “there has not been a single house demolition.”

That would come as a surprise to Palestinians who recently endured 11 days of conflict. The fighting displaced more than 70,000 people; some have no homes to return to. A longer war in 2014 left an estimated 17,000 families, more than 100,000 people, homeless. In fact, Mr Zahar was one of them: his home was destroyed by an Israeli air strike.

Such is the emptiness of Hamas’s rhetoric. To the extent that it remains popular, that is largely in contrast to the superannuated Mr Abbas. At 85, he is old enough to remember a time before Israel existed; most of his constituents are not old enough to remember a time before he was president. The PA he oversees was meant to form the nucleus of a future state. With no state on offer, today it serves mostly to distribute public-sector salaries and conduct security co-ordination with Israel.

America alone has provided more than \$5bn in aid to the Palestinians since 1994. Many in the West Bank wonder where it went, as they drive on rutted roads and vis-

it overcrowded hospitals. Close to a billion dollars is thought to have vanished during Mr Arafat’s rule. Today Mr Abbas is more interested in prosecuting anti-corruption activists than pursuing corruption. As long as his security forces keep the West Bank quiet, though, the world gives him a pass.

The endurance of Hamas and Fatah, Mr Abbas’s party, is indicative of how the Oslo era warped Palestinian politics. Majorities in the West Bank and Gaza think their leaders corrupt and authoritarian. But Fatah enjoys a measure of international legitimacy because it accepts a territorial compromise that is now a mirage; Hamas claims popular legitimacy by rejecting compromise and promising liberation, which is just as illusory.

To discard the land-for-peace framework would mean a sea change in Palestinian politics, reflecting a stark disjuncture between generations. Older people have spent a lifetime dreaming of an independent state. Asked why they do not abandon that dream and push for equality, they reply that Israel would never accept it. Many younger Palestinians disagree. The call for statehood, they argue, lets Israel frame the conflict as a struggle between two nations on a more or less equal footing. A battle for equal rights would put the onus more squarely on Israel.

The two-state paradigm turned the conflict into a land dispute. If negotiators could simply find the right path for a border, the weary parties could retreat to their respective sides. But this is also a conflict over how two peoples should live together on an uncomfortably small patch of land.

Delusions and reality

Some on both sides cling to fantasies. Right-wing Israelis persist in believing that the Palestinians can be persuaded to leave or be consigned to live as second-class non-citizens, a cheap labour pool content to cross teeming checkpoints each day to till fields and swing hammers. Groups such as Hamas still insist they can outlast Israel, that one day the Jews will pack up and “go back to Europe”, never mind that most of them are native-born (and often descended from Middle Eastern Jews rather than European Jews, to boot).

Here and there in Israel one sees a phrase in graffiti on walls in Hebrew and Arabic: *ain lanu erez aheret; la watan lanna badeel*. “We have no other country.” The Arabs and Jews must decide how to share it; the world cannot dictate a solution. That will require a new peace process, a genuine one, with legitimacy and popular support on both sides. It is hard to envision such a process sprouting soon from such poisoned soil. But to acknowledge reality would be a start. What came before has failed, and what comes next will need to talk less of partition and more of parity. ■



Islam and homosexuality

Muslim pride

Gay people are reclaiming an Islamic heritage

FOR DECADES regimes in the Middle East have alleged that homosexuality is both morally unacceptable and a Western import. Many gay activists disagree on both counts. Homophobia is the Western import, they claim, introduced by puritanical Europeans. “Ban the colonial law,” cried campaigners in Tunisia in December, referring to a law criminalising gay sex written by the French more than a century ago. “All these homophobic laws in the Middle East were brought in by colonialism to undermine Islam’s permissive civilisation,” says Ramy Khouili, a Tunisian activist.

History is complicated, and prejudice has ancient roots. Nonetheless, activists can point to periods of the Islamic past when Arab rulers were more liberal about sex. They relate how the Caliph Amin in ninth-century Baghdad had a male lover and feted gay poets. They read poems from a classical genre called *mujun*, or hedonistic smut. And they recall that the Ottoman Turks, who ruled most of the Middle East in the 19th century, decriminalised homosexuality a century before America and Britain. Back then, “you could be with a man or a woman,” says the transgender founder of north Africa’s first gay movement, the Abu Nawas Association, named after a great Arab poet, who was gay. “There were men dressed as women and living as women—and it was normal.”

“A Promenade of the Hearts”, a collection of stories and poems compiled by Ahmad al-Tifashi, a 13th-century Arab sexologist, is experiencing a revival in Beirut’s libraries. The penis, he claims, is better shaped for anal than vaginal penetration. While much classical and Otto-

man poetry features male lovers, gay groups are discovering lesbian poetry from the past. “How much have we grinded sister, ninety pilgrimages/ More delightful and invisible than the entries of the penis head,” reads a couplet.

Gay poetry is not the only art form undergoing a renaissance. Muhammad Issaoui, who calls himself “a queer dancer”, adapts the traditions of male belly-dancers once common in Cairo and Beirut. He performs in Tunisia’s clubs and theatres clad just in feather boas and underpants. “It was natural for men to express their feminine sides before,” he says. “It was just pleasure and art.”

Some activists are examining old legal texts—and finding contradictions. Classical jurists upheld the Koran’s clear prohibition of sodomy, yet debated how deep the penis must penetrate to be deemed a violation. (Up to the line of circumcision, according to a standard work written by Shia Muslims.) The present-day jihadists of Islamic State throw gay people off rooftops, citing a reported saying of the Prophet endorsing the practice. But scholars have struggled to find historical cases of anyone taking this verse literally.

This gay re-engagement with Islam has its critics. Many feminists are secular and see Muslim clerics as part of the patriarchy they want to topple. Still, most are willing to lend their support to gay people now facing arrest, torture and censorship by Arab rulers. “The problem isn’t Islam,” says Rasha Younes, a Lebanon-based researcher for Human Rights Watch, a monitoring group. “It’s the oppressive regimes who want to control us and the Middle East in its name.”

Mali

Coup within a coup

BAMAKO

The leaders of Mali’s most recent coup do it yet again

“IT’S POLITICAL chaos,” says Kevin, a 32-year-old teacher in Bamako, the capital of Mali. The country, he laments, “has absolutely no future”. There was at least some cause for hope in September, when Bah Ndaw, the president, and Moctar Ouane, the prime minister, were appointed to prepare for elections after a military coup the month before. But Assimi Goita, who led that coup and then became vice-president, is at it again. Messrs Ndaw and Ouane did not respect the transitional charter or consult him about a cabinet reshuffle, claimed Colonel Goita. They were detained on May 24th, then stripped of their powers and forced to resign.

Malian politics have long been tumultuous. Last year Ibrahim Boubacar Keita, the president at the time, faced big protests led by an opposition alliance called the M5-RFP and a charismatic imam called Mahmoud Dicko. Some of the protesters welcomed the coup that ensued and hoped the army would clean up politics before handing over to civilians. After much wrangling between the junta and ECOWAS, a regional bloc, an 18-month transition to elections was planned, led by a nominally civilian government. The junta, though, took four plum cabinet posts, including minister of defence and minister of security. The M5-RFP received little.

The transition had not been going all that smoothly even before the latest coup. Frustration with the armed forces is growing, as they not only dominate the government, but are colonising the rest of the state, too. For example, a military doctor was recently installed as head of one of Bamako’s largest hospitals. Meanwhile, progress on reforms and preparations for elections have been sluggish. In mid-May the main trade union went on strike. Under pressure from the M5-RFP for a fresh start, Mr Ouane’s government resigned on May 14th. Mr Ndaw immediately reappointed him and consultations began to establish a more inclusive government, which was duly announced on May 24th. A few hours later the president and prime minister were detained.

The changes to the government were not dramatic. The army retained control of the same number of ministries, including defence and security. But different men in uniform, not members of the junta, were put into those jobs. That seems to have provoked the arrival of soldiers at the houses ▶▶

▶ of Messrs Ndaw and Ouane (who have since been released). President Emmanuel Macron of France, which has troops in Mali, called it “a coup d’état within a coup d’état”. Western countries threatened sanctions; America suspended security aid. Colonel Goita is now clearly in charge—and mainly looking out for the army.

The leaders of the putsch may have been emboldened by the willingness of ECOWAS and Western countries to accept the government’s dubious civilian credentials. ECOWAS had called for a 12-month transitional period, but acquiesced to 18. The soldiers’ sense of impunity was probably also fortified by the limp response from the African Union, which is supposed to have a “no coup” policy, to a coup last month in nearby Chad. Ignoring Chad’s constitution, Mahamat Idriss Déby took over after his father, the president, had been killed in battle.

A French military spokesman called the events in Mali “a political episode” and said it would not affect French military operations against jihadists linked to al-Qaeda and Islamic State, who threaten swathes of Mali, Burkina Faso, Niger and Nigeria (see next story). France has 5,100 troops in the region. More than 13,000 UN peacekeepers patrol Mali itself. The EU has a large mission training the Malian army, too. Despite this, violence across the region has been rising sharply since 2016. Last year the conflict in Mali, Burkina Faso and Niger claimed about 6,200 lives.

A boon for the bad guys

The turmoil in Bamako will not go unnoticed among jihadists. Jama’at Nasr al-Islam wal Muslimin (JNIM), an al-Qaeda-linked group which operates across much of the Sahel, is not just a bunch of terrorists. It also holds out the promise of a different form of governance, says Yvan Guichaoua, an expert on the Sahel at the University of Kent. The endless machinations in Bamako will, he says, benefit JNIM.

With the Malian military leadership squabbling over power in the capital, “who is actually fighting on the ground?” asks Ornella Moderan of the Institute for Security Studies, a pan-African think-tank. In the chaos that ensued after an earlier coup, in 2012, separatists and jihadists swept towards Bamako, prompting France to intervene the following year.

The 18-month transition period since the coup in August was meant to end with elections in February 2022. Confirming that schedule will be a priority for a delegation from ECOWAS that came to Bamako in the wake of the latest coup. Colonel Goita himself claimed in his statement that those elections will go ahead as planned. But only the supremely credulous would believe a man who has staged two coups in nine months. ■

Abubakar Shekau

Sixth time unlucky

ABUJA

Boko Haram’s vicious leader is dead. Probably

ONE CAN understand why Nigeria’s government has been slow to confirm the death of Abubakar Shekau. It has announced it five times before, between 2009 and 2016. Each time Mr Shekau, the leader of Boko Haram, a jihadist group, turned up very much alive and ready to continue terrorising his compatriots. The war between Boko Haram and modernity has left more than 30,000 people dead and 3.2m displaced across four countries. Mr Shekau made zany videos to taunt the government that failed to kill him. In them, he would wave a gun, chew on a stick and let derision froth from his mouth (see picture).

But this time it seems he is not coming back. On May 19th, according to trusted reports, Mr Shekau detonated an explosive vest to avoid capture by Islamic State West Africa Province (ISWAP), a splinter group that was attacking Boko Haram’s stronghold in Borno State in north-east Nigeria. His death marks the end of a bloody career. It also reflects the shifting power dynamics among west Africa’s jihadists.

The son of a local imam, Mr Shekau was born in a remote village near the border with Niger, sometime between 1965 and 1975. He left home as a child for Maiduguri, the capital of Borno State, where he was entrusted to the care of an itinerant Koran teacher. As a young man he met Muhammad Yusuf, the founder in 2002 of the sect that became Boko Haram. When Yusuf was killed in police custody in 2009, Mr Shekau took the group underground. But it soon resurfaced as an army of zealots who at-

tacked village leaders, schools, the police and government buildings.

Vast swathes of Nigeria’s arid north-east fell under Boko Haram’s control. Attacks extended to Niger, Chad and Cameroon. Nigerian authorities say at least 10,000 boys have been abducted by the group and rifles forced into their hands. In 2014 the group won global notoriety by kidnapping some 276 schoolgirls in Chibok. Celebrities shared the slogan #BringBackOurGirls. Mr Shekau said the girls had converted to Islam—or would be sold into slavery. He became the most wanted African in the world, with a \$7m bounty on his head.

Yet it was his fellow jihadists, not bounty hunters, who laid him low. In 2015 he crushed a breakaway faction and pledged allegiance to Islamic State (IS). But IS, based out of the Middle East, came to view Mr Shekau’s relentless killing of civilians and use of child suicide-bombers as counter-productive. It first tried to replace him. When that failed, in 2016, ISWAP broke away from Boko Haram.

It has the same stated goals: the creation of an Islamic state in northern Nigeria and the eradication of “Western influence”. But it prefers taxing civilians to murdering them, and tends to focus its attacks on military targets rather than schoolgirls. In 2018 it called Mr Shekau a “tumour” that needed removing.

It is unclear whether ISWAP intended to kill Mr Shekau. Regardless, his death will have knock-on effects. ISWAP will probably absorb hundreds of Boko Haram fighters, making it even more of a threat to the Nigerian armed forces, which are reeling from the death in a plane crash on May 21st of the army commander.

Mr Shekau’s demise also bolsters IS’s claim that, although it has lost ground in the Middle East, its affiliates in Africa, whether in the Sahel, Congo, Mozambique or Nigeria, are in the ascendant. A jihadist is most likely dead. His cause endures. ■



The deadly departed



Belarus and Russia

An ever deeper union

Having hijacked a Ryanair plane, Belarus has only one friend to turn to

BELARUSIAN DISSIDENTS expect to be arrested in Belarus. But until May 23rd they thought they were safe in the West. That was when Roman Protasevich, a 26-year-old Belarusian journalist and activist, boarded a Ryanair jet that was due to fly from one EU country (Greece) to another (Lithuania). To his horror and the world's astonishment, Belarus's autocratic government hijacked it.

The plane was passing through Belarusian airspace and about to cross into Lithuania, where Mr Protasevich had been living in exile. Suddenly, the pilots were told there was a bomb on board. A MiG-29 fighter jet was scrambled to intercept the plane and escort it to Minsk, Belarus's capital, though this was not the nearest airport. On arrival Mr Protasevich was arrested, along with his Russian girlfriend, Sofia Sapega.

No bomb was found. The alert was plainly a ploy. Alexander Lukashenko, Belarus's dictator, has been rattled by mass protests against his theft of an election last year. Mr Protasevich co-founded Nexta ("someone" in Belarusian), an internet channel that covered, galvanised and in

part organised those protests. He now faces a 15-year jail sentence. In a video "confession" Mr Protasevich, with a bruise on his forehead and part of his neck apparently covered by make-up, said he was being treated fairly. A similarly distressing video was aired of Ms Sapega, who is now being charged with instigating "mass disorder".

Western governments competed to express their fury. The EU's leaders demanded the release of the two young people,



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closed European airports to Belarus's state airline and advised their own carriers to avoid its airspace. So did Britain. The most politically significant step came from neighbouring Ukraine, which banned the import of electricity from Belarus, placing itself squarely in the Western camp.

Britain, the EU and America are now working on new economic sanctions against Mr Lukashenko's regime. Belarusian opposition leaders who live in exile, as those who are not in prison tend to, say it should include a boycott of Belarusian potash and petrochemicals, the country's main exports, as well as many more travel bans and asset freezes on named individuals and state-controlled entities. Getting 27 EU members to agree on lists is likely to take time. But if Western leaders once held back because they reasoned that such moves would push Belarus closer to Russia, Mr Lukashenko's actions have made their concerns less salient: his outrages have locked him firmly into Russia's orbit.

The Kremlin is delighted. Margarita Simonyan, the boss of RT, Russia's state propaganda channel, praised Mr Lukashenko's piratical skills: "Never thought I would be jealous of Belarus. But now I am jealous. The old man has done it beautifully." Russian TV channels disseminated the Belarusian dictator's lies about the bomb threat having come from Hamas, which the EU designates as a Palestinian terrorist group. Sergei Lavrov, Russia's foreign minister, provided the rationale. "Russia will never leave Belarus in trouble...and will always ►►

▶ come to the rescue of our neighbour and strategic ally. We have common history and spiritual values.”

The main commonality between the two regimes, however, is a fear of popular uprisings that might drive both from power. Last summer, as protests engulfed Belarus, it seemed that another “colour revolution” in a former Soviet state might topple another dictator. Vladimir Putin, who disapproves of such things, stepped in, offering economic help and pledging to provide security cadres to prop up Mr Lukashenko’s forces in case they wobbled. He also dispatched a team of Russians to take over parts of the Belarusian propaganda machine if necessary. The aim was not to empower Mr Lukashenko, whom he distrusts, but to secure his grip on Belarus, which he sees as an essential battleground in his confrontation with the West.

For years Mr Lukashenko had cleverly played Russia against the West, blackmailing both to extract money. When Mr Putin pushed for a deeper union between Russia and Belarus two years ago, so that he could preside over a new empire, Mr Lukashenko resisted, taking on the unlikely role of champion of Belarusian independence. But by stealing the election and then ordering the mass arrests, mass beatings and mass torture of those who objected, he has destroyed the last speck of legitimacy he had at home and alienated the foreign powers that had previously tolerated him. Now he has only one possible ally left, a judo enthusiast in Moscow.

The melding together of Russia and a once-reluctant Belarus continues. Mr Putin met Mr Lukashenko on April 22nd and praised progress in deepening the “union state” between the two countries. A few days earlier, Russia’s FSB, the security service that now plays a dominant role in Russian politics, said it had co-operated with the Belarusian KGB (as it is still called) to uncover a Western plot to assassinate Mr Lukashenko. Whichever country came up with this conspiracy theory, Mr Putin cited it last month in a telephone conversation with Joe Biden, whom he is to meet in Geneva on June 16th.

In Belarus the plot was instantly turned into a propaganda film, “To Kill the President”. In the words of Nikolai Karpenkov, one of Mr Lukashenko’s generals, it “clearly showed that this soft, kind opposition fighting for peaceful changes are in fact bloody-minded dogs preparing a military coup, murder and kidnapping.” The Belarusian security services claimed they were, in fact, fighting terror, rather than propagating it: “We are ready to act. As soon as the order comes, we will find and purge them...we will make the world freer.” Hijacking the Ryanair flight to arrest Mr Protasevich was part of the “counter-terrorist” operation that stems from this deepening

collaboration with Russia, and was perhaps also intended to secure Belarus financial assistance in the event of harsher sanctions; a cynical deal indeed.

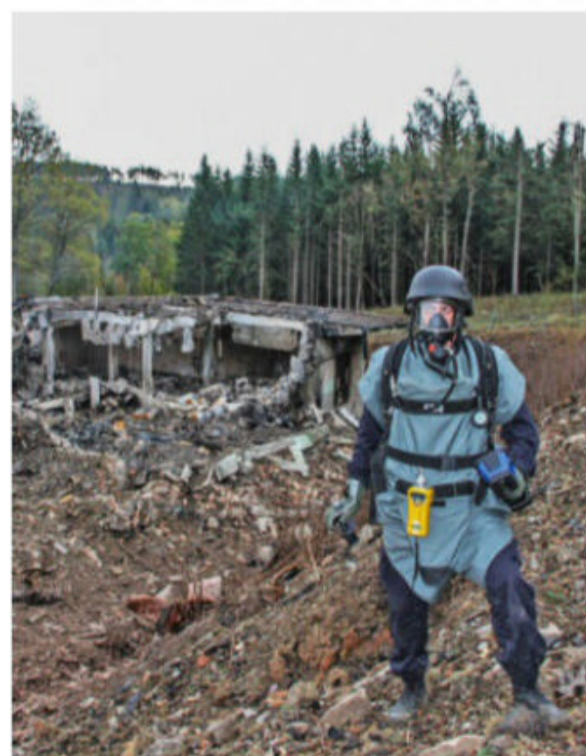
Belarus is testing new limits to what Freedom House, an American NGO, calls “transnational repression”. Authoritarian regimes such as those in Russia, China and Rwanda have long targeted domestic dissidents beyond their borders. Some will now be tempted to copy Mr Lukashenko’s novel tactics. Exiled dissidents of every nationality will be more nervous about boarding planes. Belarusian dissidents will wonder if they are safe flying over Russia, which is much harder to avoid than their homeland. When Mr Biden meets Mr Putin in three weeks’ time, the democrat and the despot will have even more to discuss. ■

Central Europe

The spirit of '68

Russia puts the Czech Republic on an official enemies list

UNLIKE TEENAGERS, countries rarely write down lists of their enemies. But Russia does. On May 14th it published a list of “unfriendly countries”. Oddly, it had only two names on it: the United States and the Czech Republic. The latter was unexpected, but explicable. In April the Czech government revealed that a deadly explosion in 2014 at an ammunition depot in the town of Vrbetice, previously thought accidental, was set off by Russian agents. (Some of the ammunition was destined for Ukrainian forces fighting Russian-backed rebels.) The Czechs and Russians have



Not a friendly act

since expelled dozens of each others’ diplomats. Relations are now as sour as at any time since the Soviet Union collapsed (though not as bad as in 1968, when Moscow’s tanks rolled into Czechoslovakia to overthrow a reformist government).

That is inconvenient for the Kremlin. It needs friends inside the EU to stave off further sanctions over its latest misdeeds. Although most Czechs distrust Russia, it has long been able to count on the Czech president, Milos Zeman, a cantankerous populist who likes to set off explosions of a rhetorical kind. Mr Zeman questioned his own country’s intelligence agencies for blaming the blast on Russia. During a visit by Serbia’s president on May 18th he abruptly begged forgiveness for NATO’s bombardment of Belgrade in 1999, clearly trying to suggest that the Russians are not the only ones who go around blowing things up.

Mr Zeman also called Russia’s enemy list “silly”, and his powers as president are limited. But the government of Prime Minister Andrej Babis is hanging by a thread. The Czech Communist Party, an unreformed Russia-friendly outfit that has 8% of the seats in parliament, stopped backing the coalition in April, depriving it of its majority. If Mr Babis falls, Mr Zeman could decide who will run a caretaker government until an election in October.

The biggest consequence of the feud involves an upgrade to the nuclear power plant at Dukovany, originally built by the Soviet Union. The state power company plans to build at least one new reactor by 2036 for €6bn (\$7.3bn), though analysts fear the cost may be twice as high. After the Vrbetice affair the government announced that Rosatom, the Russian nuclear consortium, had been excluded from bidding.

However, experts say that Russian companies have only been kicked out of the initial phase, and could end up winning contracts later. Having built Dukovany, they have an advantage over their competitors, France’s EDF, South Korea’s KHNP and the Japanese-American firm Westinghouse. “If you ask Czech engineers, they mostly say they would be for the Russians,” says Martin Jirusek, an energy industry expert at Masaryk University.

Czech views of Russia have often seen-sawed. Last spring the two countries tussled over the removal of a statue of a Soviet general, Marshal Konev, hailed for liberating the country from the Nazis in 1945 but then reviled for planning the invasion in 1968. But views of the West can be wary as well. A survey in 2020 by CVVM, a pollster, found that by a two-to-one margin Czechs are glad that their country is a NATO member, but they are split almost evenly on whether that is a guarantee of independence or a form of subjugation to foreign powers. Enemies list or no, some Czechs are still reluctant to take sides. ■

Turkey

The untouchables

ISTANBUL

A convicted mobster's allegations rock the government

SEDAT PEKER, the man at the centre of one of Turkey's biggest political scandals for many years, makes an unlikely YouTube celebrity. He slurs his words, possibly as a result of too many Botox injections, wears an unbuttoned shirt, and sits behind a desk adorned with prayer beads, pages of notes and an empty lantern. Over the past month, however, Mr Peker, a convicted mobster, has had millions of Turks glued to their screens as he has settled scores with President Recep Tayyip Erdogan's government.

His allegations, which are unproven, are explosive. In a series of videos, Mr Peker has accused the son of Mr Erdogan's former prime minister of drug trafficking and a ruling-party MP of involvement in the death of a young woman. He claims to have had another politician beaten up for insulting the president and takes credit for an attack on the offices of one of the country's biggest newspapers. He also claims the country's interior minister, Suleyman Soyly, offered him police protection.

The seven videos have been viewed at least 55m times. More of them seem to be on the way. Opposition politicians and even some members of the ruling Justice and Development (AK) party have called for an inquiry. What the allegations show, said Kemal Kilicdaroglu, the leader of the main opposition party, is that the mafia has become the government's coalition partner. "If even a thousandth of these claims are true, this is a disaster," said Cemil Cicek, an AK heavyweight.

Mr Soyly, meanwhile, denies the allegations. He has swatted away calls for his resignation, demanded that Mr Peker should be charged with slander and dared him to return home. He also called the allegations part of "an international operation" and accused America and the United Arab Emirates (UAE) of attempting to overthrow Turkey's government. Mr Peker, who fled Turkey two years ago, is believed to be living in the UAE.

Mr Soyly has not been helping his cause. Late on May 24th a crowd of supporters swarmed around the minister outside a television station, breaking curfew rules Mr Soyly had personally signed into law. He warmly thanked them.

The scandal has revived memories of the 1990s, when the state regularly teamed up with criminal groups to go after opponents, from journalists to Kurdish leaders.



Saving Setesdal

Fiddlers of the fjords

Norwegian folk music is worth preserving, says the UN

SETESDAL, A WINDING valley to the north of Kristiansand in southern Norway, was once a place of traditions little changed since medieval times. Chief among these were song and dance marked by improvisation and a beat as visceral as the blues. Birth, death and every step in between happened to music. But over the years radio, TV and then the internet wormed their way into its hamlets. Now only a handful of stalwarts know the old tunes and dances. Fearing that they might disappear, UNESCO, the UN's culture agency, gave Setesdal a listing at the end of 2019.

A UN convention on safeguarding "intangible cultural heritage", agreed in 2003, requires states to act to preserve whatever is listed within their jurisdiction within six years. "For us, this was an alarm bell," says Annbjorg Lien, who has the job of reviving folk traditions in the Setesdal municipality.

Setesdolen, the local newspaper, has started printing *stever*, four-line ditties sung in a call-and-response fashion. These are common at weddings and other celebrations. Ms Lien says there is now talk of permitting them in local-council business. This would certainly liven up dull planning-committee meetings. From this autumn schools will incorporate traditional music and dance into the curriculum, and those who teach these skills will earn good wages.

The children seem keen. Given the electronica-like pulse of a typical Setesdal session, it's easy to see why. But their enthusiasm, and that of the wider population, may also reflect a craving for community, especially after the torments of lockdown. "People want to know who they are, where they're from, what they're about. Only a soulful experience can provide that insight," says Ms Lien, a keen fiddler herself.

Scores were killed. Some of that era's unsavoury characters have now resurfaced, in part thanks to an amnesty last year.

Until recently, Mr Peker had been in the government's good graces. The mobster, who has served time for leading a crime syndicate, extortion and kidnapping, met Mr Erdogan on at least one occasion, organised rallies in support of him, and earned an award as Turkey's "most benevolent businessman". When a group of academics penned a letter criticising a government offensive against Kurdish insurgents, Mr Peker swore to "shower in their blood". He fell out of favour, he claims, when Mr Erdogan's son-in-law turned

against him.

The videos are also embarrassing Turkey's media and judiciary, which no longer dare to look into high-level corruption or probe top officials, much less members of Mr Erdogan's family. A reporter for Turkey's state news agency who asked a minister a pointed question about Mr Peker's claims lost his job the next day. The biggest previous corruption scandal in the Erdogan era was largely the work of bureaucrats loyal to a religious sect, who dug up evidence of bribery and money-laundering by government ministers. Today, the task of holding the powerful to account seems to have fallen to a mafioso. ■

Greater Paris

Beyond the fringe

LA CHAPELLE-EN-VEXIN AND MARINES

Why Paris is so disconnected from its semi-rural outer rim

CUTTING THROUGH farmland in a regional nature park, the approach to La Chapelle-en-Vexin is dominated not by its 12th-century chapel but by newly built two-storey homes. With their dormer windows, sloping tiled roofs and neatly hedged gardens, houses on such *lotissements* offer a French version of American suburban life: play space for children, a deck for the barbecue, and—crucially—off-street parking. In this village of just 333 inhabitants, an off-plan three-bedroom house with a garage is on sale for €260,000 (\$320,000)—the same as a gloomy bedsit in central Paris.

Only 65km (40 miles) separate La Chapelle-en-Vexin from the cobbled boulevards of the French capital. Both belong to the greater Paris region, Île-de-France. Yet daily concerns could not be more different.

The suburban RER express line does not reach this far. Fully 85% of residents drive to work. Villagers worry about pollution. A big local issue is an effort to get a bypass built to divert heavy traffic from driving through the centre. But roads sustain daily life. Shopping is done by car at a hypermarket. Nobody in the village uses a bicycle to get to work. “We don’t feel close to Paris at all,” says Joëlle Valençon, the mayor. “We are a bit forgotten.”

The French capital, with 2.2m people, is dwarfed by its region, home to 12.2m. Some 3m-4m of them live on its semi-rural edges. Such places, where 87% of trips are made by car, feel a world away from the capital’s concerns. Politics in Paris, governed by Anne Hidalgo, a Socialist backed by the Greens, is increasingly about bike-sharing, pedestrianisation, the *végétalisation* (greening) of concrete spaces and rooftop micro-farming. Paris aspires to be a “15-minute city”, a concept developed by Carlos Moreno, an urban planner. The idea is that everything—school, work, shops, sport, cafés—should be within 15 minutes from home on foot, or five minutes by bike. “Mine is actually more like a two-minute city,” says a Paris city-dweller, who rents an electric bike for more distant excursions.

The disconnect between Paris and the outer reaches of its region has political implications. One is that Ms Hidalgo, who is seen as an anti-car crusader and could run for the French presidency next year, may find it hard to appeal far beyond the *périphérie*. The Paris ring-road, built half a century ago, has turned into a gigantic con-

crete symbol of the capital’s division from its suburbs. Life on the *lotissements* on the region’s outer fringe has more in common with the villages and towns across France than it does with central Paris.

Divergent geographical interests also help explain why efforts over the years to merge the overlapping and competing administrative structures governing Paris and the region have come to little. As it is, the capital seems quite happy not to run the troubled *banlieues*, with their brutalist housing estates, which ring Paris itself. The semi-rural communes are more neglected still. “For 30 years the capital’s growth has benefited the nearer suburbs, but it has also reinforced the contrast with the outer periphery,” says Aurélien Delpirou, of the École d’Urbanisme de Paris.

The other Marine

The fringes of greater Paris carry a political warning too. At elections to the European Parliament in 2019, the Greens’ vote was concentrated in central Paris. A big swathe of the outer fringe, however, voted for Marine Le Pen’s populist National Rally. Studies by Hervé Le Bras, a geographer, show that the National Rally’s vote tends to rise with distance from a railway station. Isolation and fear of crime play a part, as does a sense that government ignores rural voters’ problems. At regional elections next month, the National Rally’s candidate, Jordan Bardella, is Ms Le Pen’s young deputy.

The campaign for the Île-de-France captures the rift between Paris and its region.

Valérie Pécresse, the sitting centre-right regional president, is the favourite. All candidates with more than 10% go through to a run-off, where she may face both Mr Bardella and a candidate on the left, possibly the Greens’ Julien Bayou (the candidate of President Emmanuel Macron is polling fourth). Ms Pécresse, who moved the region’s headquarters from Paris to the suburbs, has distanced herself from Parisian politicians. She opposes the pedestrianisation of parts of central Paris, as it has pushed congestion and pollution out to the periphery. The fashionably bearded Mr Bayou, meanwhile, got into trouble last month for posters aimed at young voters, which hinted that “hunters” and “boomers” were not interested in climate change.

Greenery is at the heart of this tension, and competing interests are complex. In Marines, a small town with a cobbled central square, residents cherish the environment as well as their cars. Daniel Hermand, who works at the town hall, says he quit Paris for a calmer life close to nature and forests. If the pandemic and consequent home-working push more families out, they may bring their hobbies and politics with them. So Ms Pécresse has taken care to sound eco-friendly too. She has launched an electric-bike rental scheme, and promises a network of bicycle routes to match those of the RER train lines.

“Of course it’s good for people to use bicycles,” says Othman Nasrou, Ms Pécresse’s deputy. “But environmental policy can’t be to the detriment of those who need to use their cars.” Mr Macron learned this the hard way when *gilets jaunes* (yellow jackets) launched huge protests against a rise in tax on motor fuel. It is not fashionable politics to listen to car owners, nor to the quiet concerns of those on the fringes. But the *lotissements* of greater Paris and their voting habits suggest that policymakers who unthinkingly punish the car-dependent do so at their peril. ■



Charlemagne | How farmers rule Europe

Politicians are still afraid to touch their exorbitant privileges



ARMED WITH a device designed for throwing tennis balls for dogs, it is possible to launch an egg a very satisfying 60 metres. Head to the Quartier Leopold in Brussels on the right day and you can see farmers from across Europe firing a wide range of produce an impressive distance at Belgian riot police. It is during these regular protests at the European Union's headquarters that the ingenuity, bravery and diligence of the European farmer truly shows itself. In one episode a pair of tractors slowly drove through a barbed-wire barricade, as cops scattered. When an armoured police van turned up, the farmers drove into that too. It took two water cannons at full blast to make the tractors retreat. Over the years, grumpy farmers have covered stoic Belgian riot police in hay, eggs, and milk direct from the udder.

A riot can be the voice of the unheard. It can also be a tantrum of the ludicrously privileged. European farmers are politically powerful in the same way that the sky is blue: it is a fact so universally acknowledged that it is usually not worth mentioning. This power was apparent this week in the final negotiations between diplomats, members of the European Parliament and officials over the terms under which farmers will receive €270bn (\$330bn) in 2023-27. That the farmers will get the cash is a given. The debate is about how many conditions will be attached, with the options ranging from not a lot to very few indeed.

The Common Agricultural Policy (CAP) is a tumour in the EU's body politic. Sucking up a third of the group's budget, it is a neat illustration of its struggle to change itself for the better. What began six decades ago as a *quid pro quo* between France and Germany (farming bungs in exchange for market access) is still in place. It is an odd form of redistribution. About 20% of farms get 80% of the money. Aristocrats, agri-giants and the Catholic church all take a juicy cut. Companies linked to Andrej Babis, the billionaire Czech prime minister, got €34m (\$42m) one year. Money is shifted from European taxpayers to landowners, in a frankly feudal farce. Usually, there is a pretence that things will improve. This time, the European Commission has given up. "We have to acknowledge that there will be no revolution in the CAP," said Frans Timmermans, the commissioner tasked with making Europe greener.

History is littered with once-mighty interest groups that have

withered. Coalminers in Germany and Poland will have cash thrown at them as their industries are phased out as part of the plan for a "just transition" to a green economy. But this amounts to a free bar at a wake. By contrast, farmers remain as powerful as ever. Partly this is down to the nature of food. People care more about what they put in their mouths than how they heat their homes or the bodywork of their Audis. Unlike coal or steel, food is not truly fungible. An Italian may spurn a tomato from Spain, never mind one flown in from Morocco, or a genetically modified American one. For a continent without a common tongue, snobbery about domestic produce provides a universal language.

The way the EU cooks up agricultural policy helps farmers keep their outsized power. Normally, policymaking in Brussels is a bazaar, with everything for sale at the right price. Officials from countries haggle with each other, surrendering on one topic to get what they want on another file. As a system it is opaque, but it works. By contrast, farming is insulated from the other subjects of haggling, sealed off in its own special committee. The result is that governments try to grab as much cash as they can, rather than question whether it should be there in the first place.

For all the talk of the EU's democratic deficit, agriculture is an area where the EU suffers from a surplus of democracy. Dead-eyed technocrats would happily chop farming subsidies. European politicians will not let them. In France any self-respecting presidential candidate must spend time sniffing cheese at agricultural fairs. Farming generates barely 1% of European GDP. But its fate has outsized importance. Rather than left or right, the political battleground across much of Europe is a fight between urban centres and the rural periphery. Britain's exit removed one of the few big governments that was less neuralgic about the future of farming (as its current enthusiasm for free-trade deals with agricultural powerhouses like Australia attests). For most of the EU, slashing subsidies would be an assault on a politically potent rural hinterland. It is a fight few want to have.

Farmers versus Swedish teenagers

Luckily, some do. Greta Thunberg, a young Swedish climate activist, has joined a cabal of NGOs hammering the EU for not doing enough to curb agriculture's environmental effects. At the moment, whatever ambition the EU has for climate policy melts away when it comes to farming, even though its emissions rival much heavier industries. Farmers can no longer brush off the concern. Environmental policy has gone from the hobby-horse of sandal-wearers to an existential policy debate. From now on, the farmers will have a fight on their hands. Things can get better. After all, the CAP used to be even worse. The days when European taxpayers paid to overproduce products that were then dumped on poor countries are over. But it took years of concerted campaigning to shift the butter mountains and the wine lakes.

It is too late to make a difference this time, as talks over the €270bn come to a close. A slow grinding fight led by the likes of Ms Thunberg is necessary if the CAP is to be overhauled. Ensuring that farmers do their bit for the climate, and stopping the transfer of cash to those who do not need it would be a start. The story of European policymaking is one of path dependency in which errors take years (and usually a big crisis) to unpick. Until then, the CAP will remain a scar on the EU, a visible reminder of how hard it is to undo past mistakes. Should it ever look like being fixed, though, it will be wise to avoid the EU quarter in Brussels. Imagine how grumpy the farmers will be if they actually lose for once. ■



The BBC

A colossus quietly crumbles

The corporation can cope with a hostile government and angry royals, but not with Mickey Mouse

RELATIONS BETWEEN the British Broadcasting Corporation and the government have always been delicate. Stanley Baldwin bridled at the BBC's coverage of the General Strike of 1926. Margaret Thatcher was infuriated by its reporting from the Falklands. Hugh Carleton Greene, the corporation's boss in the 1960s, confessed that, when dealing with Harold Wilson's government, "I found my experience as head of psychological warfare in Malaya in 1947 extremely useful."

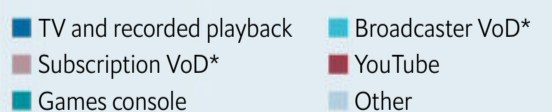
The latest spat pits the BBC against not just Downing Street but the royal family, as well as many viewers. An independent inquiry released on May 20th found that one of its most famous scoops, an interview in 1995 in which Princess Diana claimed that "there were three of us in this marriage", was secured partly by deception. Martin Bashir, the interviewer, forged documents to persuade the princess that she was being spied on. A BBC probe at the time led by Tony Hall, who later became director-general, covered it up.

The BBC promises a review of its editorial practices and another report into its dealings with Mr Bashir, who left the cor-

poration earlier this month citing ill-health. Two former executives, including Lord Hall, have quit their new jobs. Prince William declared the revelations proof that the interview "established a false narrative" about his mother. The government is drawing broader lessons. Oliver Dowden, the culture secretary, wrote in the Rupert Murdoch-owned *Times* newspaper that the BBC needed "a new emphasis on accuracy,

A lot to take in

Britain, viewing per day by method, April 2020, %



All Daily minutes 386

16- to 34-year-olds Daily minutes 382

Source: Ofcom

*Video on demand

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50 Free-trade deals

52 Bagehot: Mr Levelling Up

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impartiality and diversity of opinion". To avoid "groupthink", he said, "cultural change must be a focus".

Conservative politicians have long suspected the BBC of closet liberal leanings. Boris Johnson's government uses the "Brexit-Bashing Corporation" as a punch-bag, as part of a strategy of drawing cultural dividing lines rather than economic ones. But the real danger posed by political skirmishes such as that over Mr Bashir is one of distraction. The more the BBC focuses on government assaults, the less it is able to cope with bigger threats emanating mostly from America.

More than six out of ten British homes now subscribe to an American video-streaming service. The result is more competition for eyeballs. In the past decade Britons have gone from watching four hours a day of broadcast television to just under three. Among under-35s, broadcast TV accounts for less than a third of video viewing (see chart).

The BBC is good at new media. Its website is Britain's fourth-most visited after Google, YouTube and Facebook. The iPlayer streaming service, which the BBC launched in 2007 (the same year Netflix began streaming) is used by more people in Britain than any subscription platform. It is not enough. In 2019 under-35s spent less than an hour a day consuming BBC output, across television, radio and the internet, down by 17 minutes in just two years.

The compulsory licence fee through which it is funded is not cheap: at £159 (\$225) a year, it would be enough for a basic ▶▶

▶ subscription to both Netflix and Disney+, with money left over for popcorn. But the BBC is limited to about 25m fee-paying households and cannot borrow. Streaming companies have the world to fish in—Netflix has over 200m subscribers, Disney+ 100m—and are willing to lose money for years in the pursuit of market share. Whereas the BBC commissioned £2.8bn of content in 2020, Netflix and Disney+ have a combined budget this year of more than \$20bn. Amazon recently earmarked nearly half a billion dollars for a single “Lord of the Rings” series.

Commercial media outfits are rushing to bulk up. WarnerMedia, creator of “Game of Thrones”, “Harry Potter” and other hits, has announced plans to merge with Discovery. France’s largest and third-largest channels, TF1 and M6, will also try to merge, to provide *une réponse française* to the Americans. The BBC has teamed up with ITV, Britain’s biggest commercial broadcaster, to run BritBox, an international streaming service. With 2.6m subscribers it is a minnow.

The last stronghold

No big streamer does news, an area where the BBC remains strong. Last year 70% of Britons with internet access said they had absorbed its reports in one medium or another during the past week, according to the Reuters Institute at Oxford University; among 18- to 24-year-olds the figure was 51%. This represents a drop since 2015, when 79% of all adults and 68% of young people tuned in. But the BBC remains “undoubtedly, and by a massive margin” the main source of news in Britain, says Rasmus Nielsen of the Reuters Institute.

The corporation is at least stronger than other national broadcasters, which have seen similar declines in reach. Fully 86% of Britons say they are satisfied with their public-service media, versus between 50% and 61% of French, German, Spanish and Italian viewers. For all his complaining about the BBC, “Boris is intelligent enough to see that shutting it down would backfire,” says one senior Tory. The elderly, who make up the core of the Conservative vote, remain BBC addicts. And Mr Johnson’s healthy poll ratings mean he owes no favours to Mr Murdoch, who has long lobbied for the corporation to be trimmed.

Still, as the variety of entertainment from streamers grows, a compulsory levy to fund comedy, drama and the like looks odd. In the age of linear viewing, public-service broadcasters had to combine news with lighter fare to get people to tune in. The on-demand era has decoupled the two, making it harder to argue that everyone should pay for “Strictly Come Dancing”. Expect a smaller, newsier BBC in future—and direct the blame, or credit, not to Westminster but to Hollywood. ■

Free-trade deals

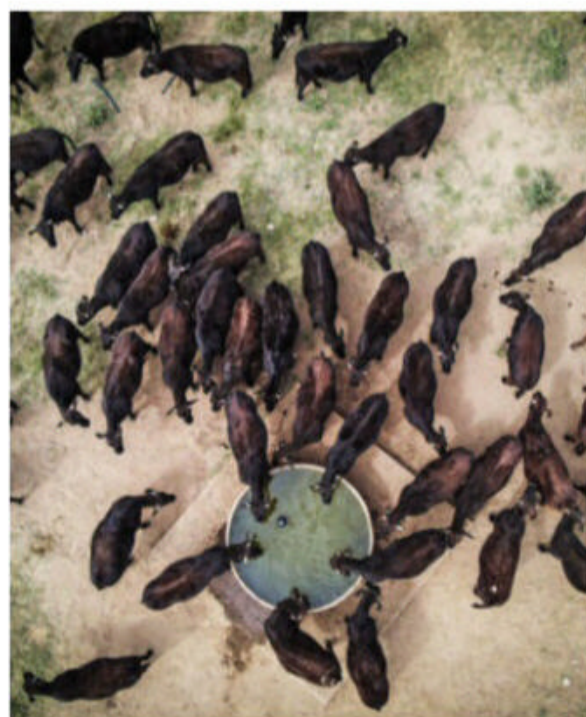
Trussed but verify

Rows over a trade deal with Australia show a need for greater transparency

CABINET SPLITS always excite Westminster. So it proved after the *Financial Times* reported a bust-up between Liz Truss, the trade secretary, and George Eustice, the environment secretary, over a planned free-trade deal with Australia. At issue was Ms Truss’s desire to offer Australian beef-producers unlimited tariff- and quota-free access to the British market, upsetting Mr Eustice’s farmers. Minette Batters, president of the National Farmers’ Union, said such an agreement would throw British family farms “under a bus”. Boris Johnson eventually came down on Ms Truss’s side after invoking the free-trade heritage of another Conservative prime minister, Robert Peel.

The prime minister is right to have done so. Brexit has created an opportunity to escape the European Union’s costly system of farm protection (see Charlemagne) and to strike more adventurous trade deals with third countries. The Australians insisted on far more generous access for beef and lamb as the price of any agreement. And, as Ms Truss asked rhetorically: if Britain cannot strike a free-trade deal with an old friend like Australia, who can it do deals with?

For all the noisy opposition of farmers (especially in Northern Ireland, Scotland and Wales) the quantities involved are small. Ms Truss’s trade department estimates that the entire deal with Australia would add a maximum of just 0.02% to GDP in the long term. Last year Britain im-



Power steering

ported some 560 tonnes of beef and veal from Australia. Were that number to rise tenfold, as Australian producers hope, it would still be less than 3% of more than 200,000 tonnes imported from the EU each year. Ms Truss also promises a 15-year transition before tariffs and quotas are lifted in full. A more justifiable fear for British farmers, suggests Sam Lowe of the Centre for European Reform, a think-tank, is that the deal becomes a model for bigger future ones with Latin America and the United States. Yet such deals are far off and could be debated on their merits.

The argument has revealed the absence of a trade strategy. Brexiteers say they want free trade everywhere. Yet they remain shtum about the barriers erected with Britain’s biggest trading partner, the EU. Almost all the trade deals done by Ms Truss so far have been rollovers of those formerly in place through Britain’s EU membership. Australia would be the first significant new one. But why is the focus of such deals so much on farming (or in some cases fish), which are tiny shares of a GDP that is 80% composed of services? How is Britain going to lead the charge towards greater liberalisation of services trade around the world?

Indeed, argues David Henig of ECIPE, a think-tank focused on trade, it seems as if the only post-Brexit strategy is to sign free-trade deals as quickly as possible. That fosters a sense of desperation, which puts Britain in a weak bargaining position against some of the world’s toughest negotiators. The latest deal appears to be of greater benefit to Australia than it is to Britain. Just wait for the battle that is likely with the Americans, who take no prisoners in trade talks.

That points to another concern over the deal: the lack of transparency in negotiating it. Public support for free trade is often fragile, because producers who lose out shout louder than consumers who gain. Protests from special interests, greens and others have often sunk free-trade negotiations, ranging from Seattle in 1999 through Doha in 2008 to a planned transatlantic trade and investment partnership in 2016. Yet the British government conducts its negotiations, including those affecting controversial food-safety standards, largely in secret. Parliamentary scrutiny is allowed only after trade deals are signed.

The risk of this triggering a popular backlash against freer trade is all the greater because of the government’s reputation. Ms Batters’s adverse reaction to the Australian trade deal was so strong partly because she claims that Mr Johnson promised he would die rather than sell farmers down the river in order to secure trade deals. She is not the first, and will not be the last, to discover that the prime minister has a habit of making promises that he does not intend to keep. ■

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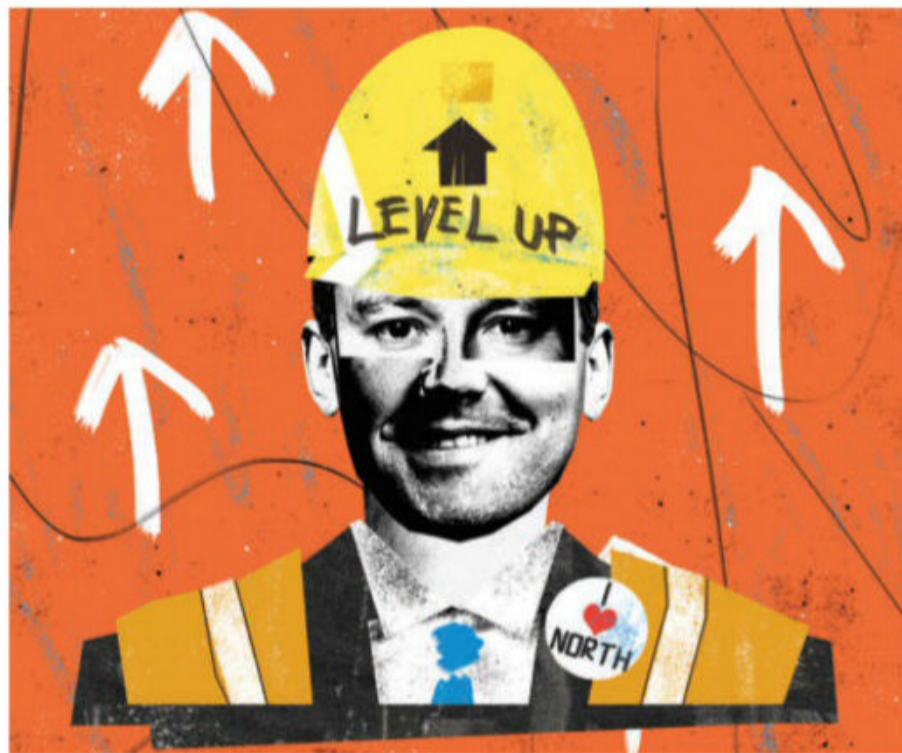
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Bagehot | Mr Levelling Up

Neil O'Brien tries to make sense of the government's signature philosophy



EVER SINCE he stood on the steps of Downing Street the day after his 2019 election triumph and promised to “unite and level up” the country, Boris Johnson has been tormented by the question of what “levelling up” means. What exactly is being “levelled up”—individual opportunities or entire regions? How can anybody tell if it is happening? Isn’t “levelling up” from Westminster and Whitehall a contradiction in terms? It is “a slogan without a purpose”, one Downing Street insider recently complained.

Lost in the recent fuss about Carrie Symonds’s over-the-top wallpaper and Dominic Cummings’s acid reflux is the fact that Mr Johnson is at last attempting to make sense of levelling up. He has appointed a new adviser on the subject and given him the job of producing a “landmark” white paper later this year. Mr Levelling Up will head a small team in the Cabinet Office and work closely with Michael Gove, the Chancellor of the Duchy of Lancaster and a fount of ideas about rebalancing the country, and Sir Michael Barber, a former adviser to Tony Blair.

It would be tempting to dismiss this as just another empty gesture were it not for the man who has been appointed to do the job. Neil O’Brien is as close to the perfect candidate as you could get. He has been thinking about the subject for years, knows his way around the corridors of Westminster, Whitehall and, to a lesser extent, local government, and manages to be both optimistic and realistic. If anybody in today’s Tory party deserves to inherit David (now Lord) Willetts’s old title of “two brains”, it is Mr O’Brien.

When he received his last big promotion, to co-chairman of the Conservative Party’s internal think-tank, the Policy Board, the *Yorkshire News* described him as “a previously obscure MP whom even political obsessives would have struggled to identify”. In fact he has been a big figure within the Tory political machine for years. He directed the Policy Exchange think-tank and was a special adviser to George Osborne (as chancellor) from 2012 to 2016 and then to Theresa May (as prime minister). He has been MP for Harborough in the Midlands since 2017.

He gets on well with all factions in the party. He voted to leave the EU in 2016 and co-founded the hawkish China Research Group, but also keeps in touch with his old boss and panda-hugger, Mr Osborne. He believes that the Tories should fight harder to contain

the “woke revolution rolling through western institutions”. But he has also fought a feisty Twitter war against professional culture-warriors such as James Delingpole who have tried to extend the war on woke to a war on masks and lockdowns.

Mr O’Brien started thinking about “levelling up” when the rest of his party was obsessed with Notting Hill Man and Woman. In 2014 he wrote a paper, “Northern Lights”, arguing that the Tories should venture beyond their southern comfort zone. In his years with Mr Osborne he was involved with the Northern Powerhouse project. Since becoming an MP he has formed a Levelling Up Taskforce with 40 others and has written a column for the Conservative Home website in which he often returns to the subject.

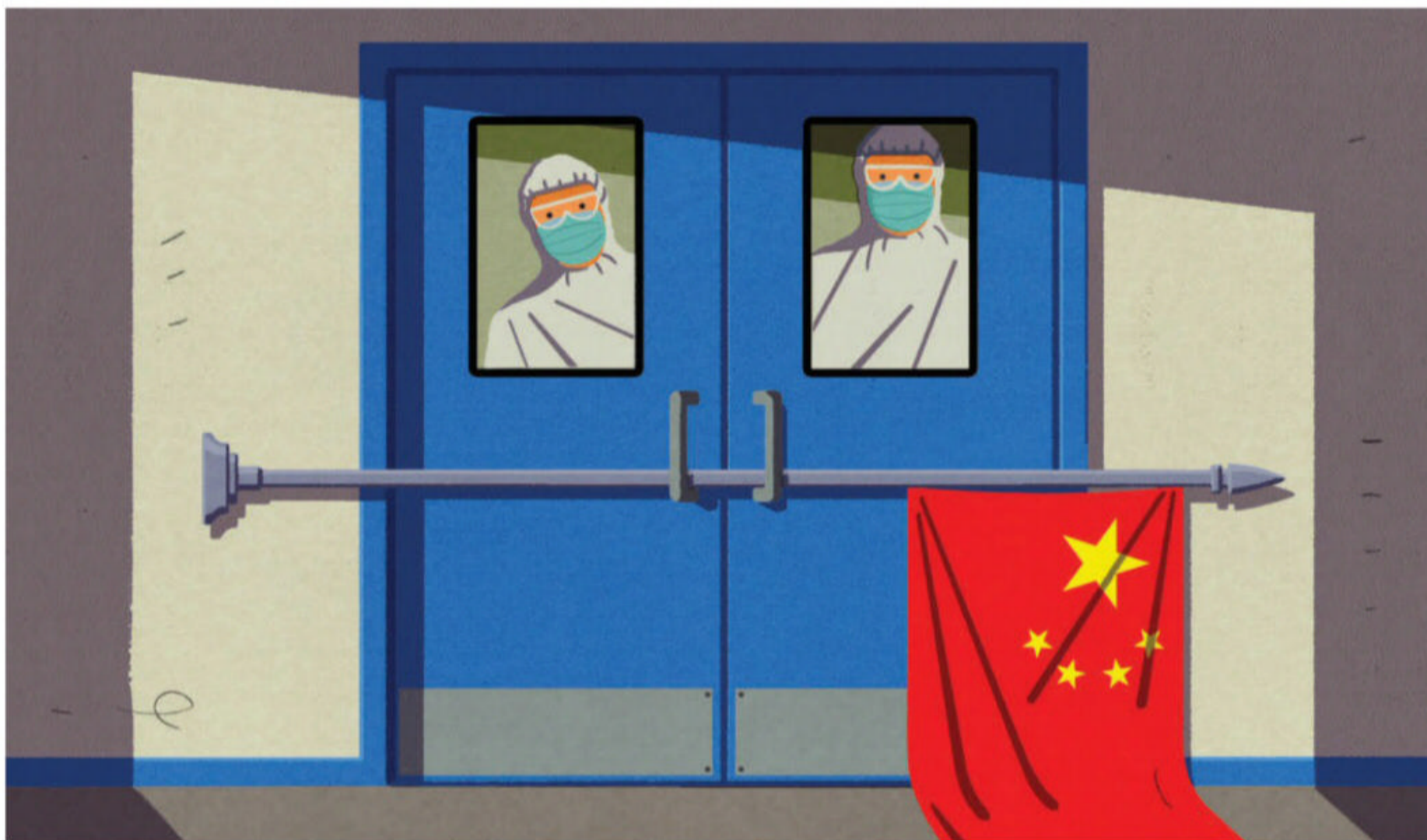
His fascination is rooted in personal experience. During his formative years he was surrounded by reminders of fading northern might. His parents were from Glasgow, one of the industrial engines of the British empire; he grew up in Huddersfield, a former Victorian boom town; and his brother moved to Liverpool, Britain’s leading example of economic decline.

Even the talented Mr O’Brien will struggle to make sense of his new portfolio. The prime minister wants him to think about the subject in the broadest possible terms. It is not just about promoting economic development in Britain’s poorer regions or spreading opportunities more evenly, but also about tackling inequalities in the provision of public services (particularly education, transport and law and order) and improving “pride in place” by sprucing up high streets and civic buildings. The job could easily spiral out of control or fall between the cracks in Whitehall. It is notable that other successful examples of driving change from Downing Street, such as Mr Blair’s education reforms, have focused on one department.

Moreover, Mr O’Brien’s most innovative ideas don’t mesh well with the orthodoxy in his party and in the Treasury. He believes in the power of manufacturing (“the view that manufacturing is a relic of the past is itself a relic of the past”). Manufacturing provides a larger proportion of the better-paid and more productive jobs in Britain’s poorer areas than in its richer ones: in the north-east the median wage in manufacturing is 22% higher than the average, for example. He is also a fan of the state’s ability to encourage innovation, citing the example of the Asian tigers, which have avoided many of Britain’s destabilising inequalities, and calls for more investment in the “D” rather than just the “R” side of research and development. It is easy to imagine Treasury officials blocking, diluting and otherwise subverting any such policies.

Our friend in the south

Yet Mr O’Brien will not be an easy man to sandbag. He knows his subject better than the Treasury mandarins or the party stick-in-the-muds: read him in Conservative Home debating precisely how to measure household income or running through the demography of the party’s new seats in the north. He has lots of levers to pull, from special grants (such as the Towns Fund and the Levelling Up Fund) to business funds. Many of his long-term passions, such as increasing infrastructure spending, raising capital allowances and shifting resources from the bloated university sector to the under-funded vocational sector are now mainstream in his party. And much levelling up can be achieved not by spending more but by stopping giving preferential treatment to the south-east, as Britain does in spending on research, transport infrastructure and housing. At the very least, the government’s “slogan without a purpose” is now a slogan with a powerful champion. ■



Where covid-19 came from Looking again

NEW YORK

How can the world prepare for a future pandemic when it does not know for sure where the current one came from?

IN MARCH, President Joe Biden asked his spooks how the covid-19 pandemic had started. Contradicting claims made last year by Donald Trump, who said the intelligence services had shown him very strong evidence on the matter, they told him that that they did not know. So on May 26th he asked them again, publicly this time, admonishing them to try harder and to report back in 90 days.

This is a direct rebuke to China's secretive government. When experts convened by the World Health Organisation (WHO) travelled to Wuhan, the city where covid-19 was first identified, in January and February this year their hosts refused to share crucial data. A senior Biden administration official said recently that he found those efforts to "undermine serious investigations" into the pandemic's beginnings particularly troubling, and that they left "many more questions than answers".

At the crux of this distrust is the possibility that SARS-COV-2, the virus which causes covid-19, may have emerged accidentally from research on animal corona-

viruses conducted at the Wuhan Institute of Virology (WIV) or another nearby lab. In early 2020 this idea, sometimes conflated with the idea that the virus had been developed as a biological weapon, was publicly dismissed by eminent scientists. In February 2020 a number of them used the pages of the *Lancet*, a medical journal, "to strongly condemn conspiracy theories suggesting that covid-19 does not have a natural origin". Most in the media followed their line. By far the most plausible account of covid-19's origins, they reported, was "zoonotic spillover"—that is, a virus jumping unaided from animals to humans, as is taken to have been the case for SARS, a disease caused by a different coronavirus, in 2002. Lab-leak theories were widely dismissed as conspiracy-mongering.

In the past few months, though, discussion of lab-leakery has gained currency

among politicians and policy elites and in the mainstream media, as well as in influential blog posts by science reporters. This is in part because of the departures of Mr Trump and Mike Pompeo, his secretary of state, who promoted the theory with gusto. To be able to consider the possibility without giving them succour will have made it easier for some.

But the resurgence is not a purely political phenomenon. On May 13th *Science*, a journal, published a letter from a group of senior scientists who had not previously weighed in on the matter arguing that "theories of accidental release from a lab and zoonotic spillover both remain viable". In this they were taking the same position as Tedros Adhanom Ghebreyesus, the WHO's boss, who refused to rule out the possibility of a laboratory origin after the WHO mission in January and February was stonewalled, and has since called for further inquiry (see following story).

This is not going down well in China. On May 21st, at a Global Health Summit convened by the EU and G20, Xi Jinping, China's president, urged world leaders to "firmly reject any attempt to politicise" the covid-19 pandemic. On May 25th China's representative at the World Health Assembly, the WHO's decision-making body, said the country considered the inquiry into the origins complete and that the focus should shift to other countries, strongly suggesting that it would not accommodate further investigation.

→ Also in this section

54 The likelihood of a laboratory origin

High on the assembly's agenda were responses to the current pandemic and the prevention of future ones. Felicity Harvey, chair of an oversight committee for the WHO's Health Emergencies Programme, said that new virus threats must in future be handled with more transparency, better data-sharing and an ability to give informal early warnings to the world. Earlier in May a WHO panel of experts recommended that countries be placed under a greater obligation to report new outbreaks and that the WHO's authority to seek out and share relevant information with the world be strengthened.

It would be surprising if China (and, indeed, some other countries) were to accept all these ideas. Its leadership has consistently fought to deny international bodies the right to stick their noses into the affairs of sovereign countries, and it does not always welcome the WHO's attentions. In 2018 it declined requests from American officials, made under WHO guidelines, for lab samples of the H7N9 strain of avian flu.

China has instead recently indicated it will reform its own public-health system. On May 13th the authorities announced a reorganisation of the national public-health bureaucracy under a new entity, the National Administration of Disease Prevention and Control. A priority in the shake-up is to improve top-down control, so that lower-level officials have more incentive to report new public-health threats up the chain of command.

Chinese authorities tried to deal with a similar issue after the SARS outbreak of the 2000s, in part to tackle the problem that national health officials were outranked by provincial authorities who had covered up the early spread of that coronavirus in southern China. They made the monitoring of new threats more systematic, raised their game with the WHO and even co-operated with America's Centres for Disease Control and Prevention, the model for China's own CDC—the Wuhan office of which is now being mentioned in the context of a possible laboratory origin.

There is as yet no evidence in the public domain that a laboratory leak actually took place; just evidence that the possibility is real. Mr Biden's request suggests anything the secret world can currently add to that is pretty weak stuff. His statement says that, at present, two "elements" within the intelligence community lean towards the zoonotic explanation, one prefers the laboratory origin, and no one has high confidence in any of these assessments. Without help from China, a harder look will not necessarily change this. But it is still worth taking, even given the risk of a confrontational response which will make the enhanced transparency and co-operation talked about at the World Health Assembly unlikely to blossom any time soon. ■

The lab-leak hypothesis

Possible, but far from proven

The theory that SARS-COV-2 originated in a laboratory is gaining adherents, but it has yet to find evidence beyond the circumstantial

IT IS POSSIBLE that the chain of infections which spread SARS-COV-2 around the world began, like most new diseases do, when an animal virus found its way unaided into humans, whether in field or farm, cave or market. It is also possible that the chain began in a Chinese government laboratory. These two possibilities have been recognised by many of those studying the covid-19 pandemic for a long time. But the fact that two things are both possible does not mean they are equally likely.

For most of 2020 scientists and the media tended to treat the likelihood of a leak from a lab as a very small one, with everyday contact—"zoonotic spillover"—overwhelmingly more probable. That has now changed. Tedros Adhanom Ghebreyesus, director-general of the World Health Organisation, said in March that assessment of the laboratory hypothesis had not yet been extensive enough. On May 26th President Joe Biden ordered America's intelligence agencies, which have not as yet reached a conclusion either way on the subject, to go away and try harder (see previous story).

The escape artists

The place most strongly tied to the emergence of SARS-COV-2 is a fish and animal market in the Chinese city of Wuhan. China's wildlife markets and the trade which supplies them with their civets, rats, pangolins and badgers are viral melting pots brimming with opportunities for zoonotic spillover. In the 2010s a study in Vietnam showed that animals acquire coronavirus-

es from each other as they make the journey to restaurant or market; there is no reason to think Chinese supply chains more salubrious. In February last year China announced a ban on wildlife consumption and trade in recognition of the risks involved. It was a big step, and a costly one.

The first flutterings of lab-leak concern were prompted by simple geography. That market is just 12km away from the Wuhan Institute of Virology (WIV), a global centre for coronavirus research. The Wuhan Centre for Disease Control and Prevention (CDC), which also worked on bat coronaviruses, is closer still: a mere 500 metres. A worker or workers in one of these labs could have been infected with a coronavirus being used in research, thus providing that virus with passage to the outside world. A related idea is that the virus came directly from a bat, or another animal, either inside a lab or as part of research-associated field work. An avid collector of wild bat viruses works for the CDC.

If one of these possibilities were to prove true it would be deeply and disturbingly ironic. Ever since the outbreak of SARS, a respiratory disease caused by another coronavirus, in the early 2000s, coronaviruses have been seen as having a worrying propensity for pandemics. That is what made them of particular interest to the researchers in Wuhan; their work on coronaviruses was carried out in the name of reducing the threat they posed.

Pathogens escape from institutions working on them with depressing frequen- ▶▶



cy. The last known death from smallpox was the result of a laboratory leak in Britain in 1978. SARS-COV-1, the virus which causes SARS, escaped from labs twice as it spread round the world in 2003, once in Singapore and once in Taiwan; it leaked out of a Beijing lab on two separate occasions in 2004. In December 2019 more than 100 students and staff at two agricultural research centres in Lanzhou were struck with an outbreak of brucellosis, a bacterial disease usually caught from livestock.

Most alarmingly, the H1N1 strain of influenza which started spreading around the world in 1977 is now known to have been released from a north-east Asian lab—possibly in China, possibly in Russia. Some Western observers suspected this at the time, but they made little fuss about it, perhaps afraid that doing so would lead to China and/or Russia pulling out of international flu-surveillance efforts, or spark a backlash against virology.

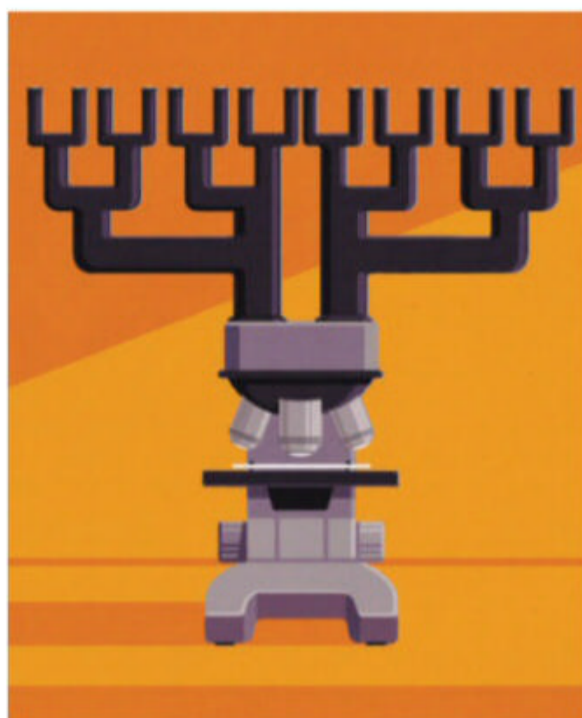
Biosecurity at the wiv was known to be spotty. American diplomats who visited it in 2018 reportedly flagged issues of concern, making specific mention of coronaviruses and pandemic risk. In February 2020 the Chinese ministry of science and technology issued new rules requiring laboratories to improve their biosafety, indicating unease with the status quo.

Charles Darwin, detective

The idea of a laboratory leak was apparently not unthinkable to those involved. When Shi Zhengli, a coronavirus researcher who is the director of the wiv's Centre for Emerging Infectious Diseases was interviewed for *Scientific American* in early 2020, she said one of her first concerns was whether the virus could have come from her own lab. After searching records of all the viral sequences that they had worked with, she concluded it had not. Yet the Chinese government has rarely been hesitant to suppress any information that does not suit it, and Dr Shi may not be able to say otherwise. It is also possible that the virus came from work outside her purview.

Dr Shi's group at the wiv has spent years trying to understand mutations that would allow bat viruses to spill over into human populations. In the pursuit of such questions they conducted research designed to make coronaviruses more infectious to humans. In work published in 2015 they reported a chimera created from a bat coronavirus and a mouse coronavirus that was able to replicate efficiently in human airway cells.

Some proponents of the lab theory have speculated about what other animals the laboratory might have used in this work. They point out that the virus looks very much like a cross between a pangolin virus and a bat virus with an additional genetic sequence that makes the virus far more in-



fectious to humans. This “furin cleavage site” is not found in other closely related viruses; perhaps it was put there, they say.

There are various counterarguments to the specifics of these speculations. There is also a more overarching caveat based on the insights of Charles Darwin: natural selection can come up with all sorts of subtleties which look like irrefutable evidence for intelligent design to those who start off believing in a designer.

What of evidence from the spread of the disease? According to the *Guardian*, a British newspaper, when the WHO sent scientist Peter Ben Embarek to China in July 2020 his subsequent report to the agency stated that the Chinese had done “little...in terms of epidemiological investigations around Wuhan since January 2020”. Some infer that China is not looking because it knows, or perhaps just fears, the answer.

That lack of zeal adds to lab-leak suspicions. One of the reasons offered for the increased interest in such ideas is that only limited further evidence for zoonotic spillover has come to light; no one has found anything close to a “smoking bat”. When the lab-leak story seems to have momentum and the zoonotic story appears to just sit there it is natural for people to get the feeling that the lab hypothesis is becoming more likely. But it is not strictly logical. It is also important to remember that the relatively quick progress made on the origin of SARS in 2003 is not necessarily a reliable guide to how fast such sleuthing normally gets results.

While some data are absent, others are simply not being shared. During the WHO visit early this year the Chinese authorities refused requests to provide key epidemiological data on the 174 earliest known cases of covid-19 in the city in December 2019.

These data are crucial. Not all the early cases of covid-19 were from the market. Rather than being the source of the outbreak, it could simply have been a place

where the virus was amplified. That speaks to the need to look at other possible sources, and that requires individualised data on every early case. The lack of such data meant that the WHO team was unable to do a standard epidemiological investigation, Dominic Dwyer, an Australian microbiologist, told the *Wall Street Journal* at the time. These early cases of covid-19 could point clearly in the direction of either an animal or laboratory source.

Excitement about the latter possibility has been stoked by the re-emergence of claims that three workers from the wiv got sick with something a bit covid-like in November 2019, claims first aired by the state department in the dying days of the Trump administration. But these reports lack corroboration, sources or details of where in the lab the people involved actually worked. That means they do nothing to move the story along.

The evidence to date shows that the circumstantial assumptions on which the idea is based—that there was coronavirus research and that it could have leaked—are true; it does not provide direct insight into the outbreak proper. As Ralph Baric, an American researcher who helped set up the wiv's coronavirus work, told the *Wall Street Journal*, “more investigation and transparency are needed to define the origin”; he himself continues to see zoonotic spillover as the more likely possibility.

Ideally, China would help such investigations unearth new evidence. That can hardly be counted on. It is possible that the dogged work of America's intelligence services may turn up compelling arguments for or against regardless, or that the many scientists poring over details of the virus's genome and structure may come up with something. But there is no guarantee that the question will be solved soon.

Was it worth it?

For observers such as Filippa Lentzos, a biosecurity expert at King's College London, the uncertainty underlines the need for more discussion about the risks that the world is willing to take in the name of science. More facilities for pathogen research are being built around the world, and even the most sophisticated biosecurity measures may sometimes leak.

That means the research needs to be carried out in ways that allow scrutiny and accountability, that the knowledge sought needs to be worth the risks, and that that knowledge, once gained, should be used and made useful. There is no compelling evidence that the presence of the wiv in the city where the covid-19 pandemic began was anything other than a coincidence. But neither is there evidence that the wiv's coronavirus research, justified in the name of pandemic preparedness, did anything to lessen this pandemic's toll. ■

A close-up photograph of a man with dark skin and short hair, wearing a dark jacket, kissing a young child on the cheek. The child is looking towards the camera and holding a red tomato in their mouth. The background is a plain, light color.

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The future of Big Oil

The little Engine that could

NEW YORK

ExxonMobil's defeat by green investors is just the beginning

“THE STONE AGE did not end for lack of stone, and the oil age will end long before the world runs out of petroleum.” That battle cry animates critics of Big Oil, who dream of phasing out hydrocarbons in favour of cleaner fuels and technologies. Their *bête noire* is ExxonMobil, long the richest and mightiest of Western oil supermajors—and the most unrepentant in its defence of crude. Lee Raymond, a formidable former boss of the Texan titan, once told your correspondent to get out of his office after being challenged over his flagrant denial of climate science.

Darren Woods, who currently does Mr Raymond's old job, does not deny that climate change is real. And he must now contend with the biggest rebuke to the firm's management in living memory. At his company's shareholder meeting on May 26th a coalition of activist investors led by Engine No.1, a small hedge fund, managed to put at least two green-tinged directors

on the board to promote a lower-carbon strategy of the sort espoused by European supermajors such as BP, Royal Dutch Shell and Total. As *The Economist* went to press the fate of a third activist nominee had yet to be determined.

Engine No.1 didn't quite get its way: it had put forward four candidates. But as David Larcker of Stanford's Graduate School of Business observes, it is “extremely rare” for a company the size of ExxonMobil to

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elect even one dissident director, let alone two or three. Even one dissenting voice can make a big difference, says Charles Elson, a corporate-governance expert at the University of Delaware who has served as a courteous rebel on various boards. The result is thus an unprecedented attack on ExxonMobil's carbon-addiction, which is greater than any other supermajor's (see chart 1 on next page).

The campaign succeeded thanks to the backing of powerful allies. CalPERS and CalSTRS, pension funds representing, respectively, California's public employees and its teachers, have between them over \$700bn in assets under management. Two giant funds representing New York's state and city employees, with another \$300bn or so in assets, joined them in supporting Engine No.1's effort. Together they hold less than 1% of ExxonMobil's shares. But as large asset managers, their actions sent a strong signal to the broader market.

The market received it. Institutional Shareholder Services (ISS) and Glass Lewis, a proxy-advisory duopoly which counsels investors on such matters, recommended the election of three and two of Engine No.1's directors, respectively. In a report published on May 14th ISS declared that the hedge fund “made a compelling case that additional board change is needed to provide shareholders with sufficient confi- ▶▶

► dence” in ExxonMobil’s prospects. The majority of shareholders agreed, almost certainly including some big asset managers.

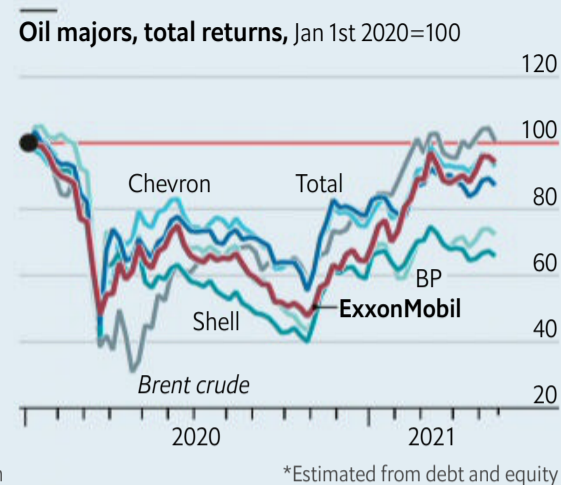
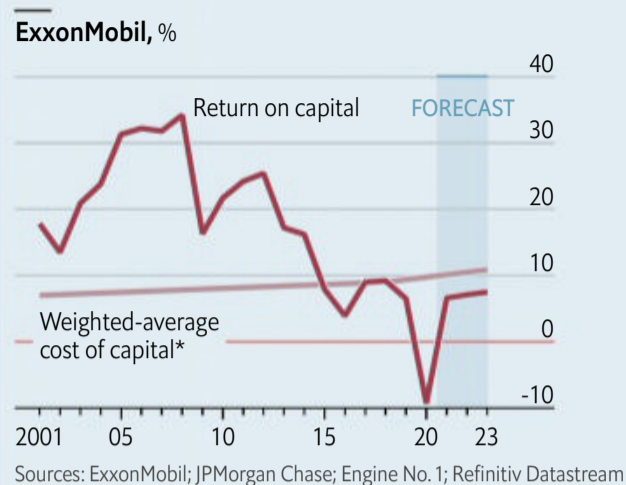
The vote itself was as odd as the result. ExxonMobil’s management refused to announce the results, which should already have been tabulated, at the scheduled hour, instead declaring a recess “to ensure all of our shareholders have the opportunity to express their views”. This unusual move fuelled rumours that the firm was trying to persuade large institutional investors to reverse votes cast for the dissident directors, especially those with the greenest profiles. If true, that would be a departure from ExxonMobil’s habitually strong corporate governance.

Whatever actually went on during the unscheduled break, the result was still a bombshell. When the meeting resumed, the firm announced that two of Engine No.1 candidates, Gregory Goff and Kaisa Hietala, had been elected. It said it needed more time to determine whether a third, Alexander Karsner, would join them.

ExxonMobil’s proxy defeat is the latest sign that outside pressure for the oil business to embrace the transition to a low-carbon future is mounting. On May 18th the International Energy Agency (IEA), an international forecaster not known for alarmism, warned that investments in all new fossil-fuel projects must stop now if the global energy sector is to achieve carbon neutrality by 2050. President Joe Biden wants America’s power sector to stop adding greenhouse gases to the atmosphere 15 years earlier than that.

So far it has been Europe’s oil giants that were pushed harder to go greener—by activists, consumers, regulators, investors and courts. Last year BP vowed to slash the carbon intensity of the products it sells by 50% in the next 30 years. This month Shell won shareholder approval for its plan to create a carbon-neutral business by mid-century, including emissions from the fuel burned by end-users. Though ambitious by industry standards, this was not enough for a judge in the Netherlands, who on May

Texas hold ‘em, but for how long?



26th ordered the Anglo-Dutch giant to cut emissions between 2019 and 2030 by 45%, in keeping with global climate accords; Shell is expected to appeal.

Now carbon-bashing is spreading beyond tree-hugging Europe. Earlier this year activist badgering had already prompted ExxonMobil to unveil plans for a new “low carbon solutions” division, which will develop technologies to capture carbon and store it underground. It has also pledged to cut the carbon intensity of its own exploration and production operations by 15-20% by 2025. The same day as the ExxonMobil vote, shareholders of Chevron, its American rival similarly bullish on oil, voted for a proposal to reduce emissions from the end use of its products.

ExxonMobil’s new directors will now push for more aggressive emissions cuts. Engine No.1 points to the firm’s plans to spend merely \$3bn or so in total over the next five years on its low-carbon effort, compared with around \$20bn a year on dirtier traditional investments. Unlike Shell, the company has promised only to reduce emissions from its own operations, not the vastly greater ones produced when its products are used by consumers.

The big reason such arguments no longer fall on deaf ears is ExxonMobil’s once mighty reputation for being tightly run has

slipped. Indiscipline has replaced historically prudent capital spending. The firm has torched billions in shareholder value in the past few years. The most eye-popping chart in Engine No.1’s 80-page manifesto shows its return on capital languishing at or well below its weighted-average cost of capital since 2015 (see chart 2).

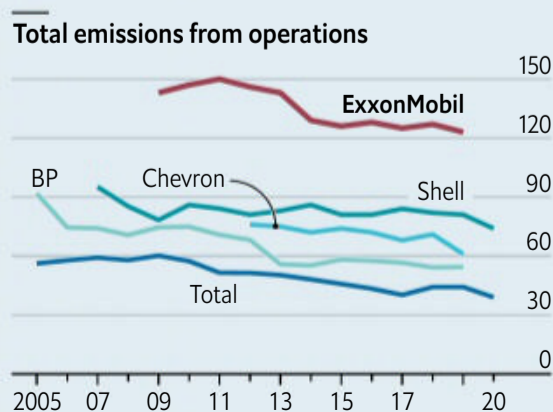
Whereas Chevron spent less than \$70bn on capital expenditure in total over the past five years, ExxonMobil splurged nearly \$100bn, even as oil prices swooned. Its net debt has nearly doubled since 2015 to over \$60bn. A mistimed and overpriced acquisition of xTO Energy, a gas firm, led it in November to write off \$17bn-20bn—and S&P Global, a rating agency, to entitle a scathing analysis of the incident “How not to do M&A”. “Board refreshment is necessary due to the long-term financial underperformance at ExxonMobil,” says Anne Simpson of CalPERS.

Last summer, as ExxonMobil’s share price headed to a two-decade low and the company was knocked out of the Dow Jones Industrial Average after nearly a century in the blue-chip index, Ms Simpson’s argument would have sounded incontrovertible. To many it remains compelling. But deep down many investors may still worry that the green shift will destroy shareholder value. Thanks to dearer oil ExxonMobil has clawed back \$10bn in market capitalisation since October, handily besting the European giants whose promised wind and solar projects are years away from profitability and could meanwhile eat into their dividends.

Crude prices are, of course, cyclical by nature. They will fall again at some point, in contrast to the carbon dioxide relentlessly accumulating in the air as more oil is burned. Mainstream investors now view climate risk as “a core component of long-term value”, notes Timothy Youmans of EOS, which offers stewardship services to owners of \$1.5trn in assets and supports Engine No.1. This week’s shareholder battle is proof of that. Mr Woods and his successors should brace for more such fights. ■

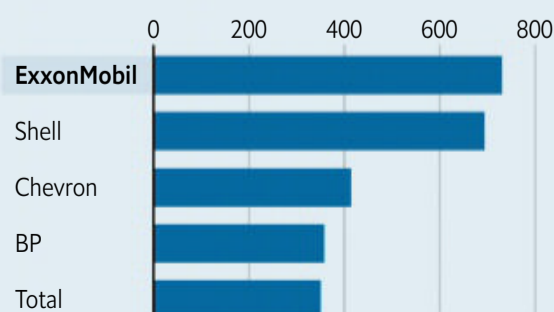
In need of a low-carb diet

Oil majors, greenhouse-gas emissions, tonnes, m



Emissions including end-use of fossil fuel

2020 or latest available



E-commerce logistics

Formula races

HONG KONG

When it comes to delivery, Chinese tech titans take divergent routes

IN 2019 RICHARD LIU told couriers working for JD.com that the Chinese e-commerce giant he founded would cancel their base pay after a 2.8bn yuan (\$438m) loss the previous year, its 12th consecutive one in the red. Riders would make only a commission on deliveries. If the company did not cut back on spending, Mr Liu warned, it would go bust in two years.

Far from collapsing, two years on JD Logistics, JD.com's delivery division, is on a roll, fuelled by a boom in Chinese e-commerce (see chart). Its parent company's revenues jumped by 39%, year on year, in the first quarter, to 203bn yuan. On May 26th Pinduoduo, an upstart rival that also offers customers delivery by JD Logistics couriers, reported quarterly sales of 22bn yuan, 239% higher than a year ago.

The State Post Bureau expects logistics companies to deliver more than 100bn parcels this year, twice as many as in 2018. Overall spending on logistics in China is projected to hit 16trn yuan in 2021 and surpass 19trn yuan by 2025. That would make it the world's largest market. The logistics business has also avoided the worst of the crackdown against Chinese big tech, which has seen firms such as Alibaba and Tencent (which owns a large stake in JD.com) taken to task by the Communist authorities over their growing power.

Domestic and foreign investors have been pouring money into the industry, say lawyers working on deals involving such businesses. JD Logistics has attracted investments from big private-equity groups such as Sequoia China and Hillhouse Capital. The market buzz around the firm is as frenetic as the pace at which its 190,000 workers fulfil and ferry orders. On May 21st it raised \$3.2bn in Hong Kong's second-largest initial public offering this year. Its shares are scheduled to begin trading on May 28th. The company's backers are betting that its Amazon-like approach of creating a fully integrated delivery network has more mileage than a similar offering from SF Express, a stodgier incumbent similar to FedEx, or a rival model championed by Alibaba, which has plumped for a more distributed system.

JD Logistics is the only large Chinese delivery service to grow out of an e-commerce parent. It became a separate entity from JD.com in 2017, in part so that it could take orders from other online retailers. It still delivers the bulk of JD.com's packages

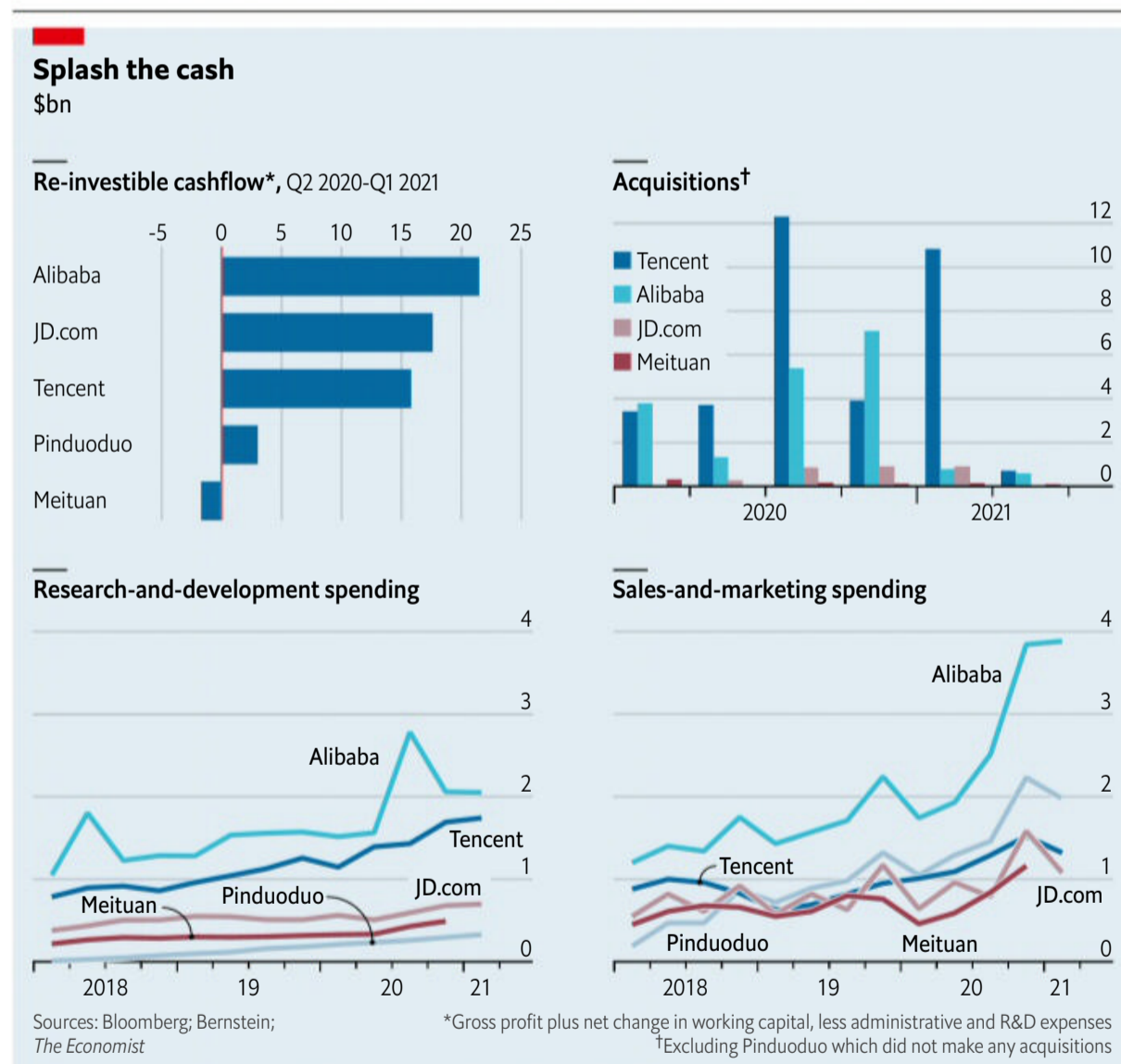
but a large chunk of its revenues now comes from orders outside the group. By owning much of its technology, lorries and warehouses, and directly employing staff, the firm has been able to ensure faster delivery times while monitoring quality. It operates China's largest integrated logistics system, covering a good's entire journey and including a fully autonomous fulfilment centre in Shanghai and driverless vehicles. The system can also flip into reverse, sending customer feedback to product designers that, JD Logistics claims, helps it produce better products and bolster brands.

Contrast that with Cainiao, in which Alibaba has a controlling stake. It does not own many of the logistics assets in its network. Instead it allows around 3,000 logistics companies employing some 3m couriers to plug into its platform. Its aim is to integrate and streamline the vast delivery resources that already exist across China, rather than build its own. The company has teamed up with most large logistics

services—and taken investments from them as well. Alibaba, for its part, has bought minority stakes in several large operators as a means of exerting more influence over the industry. Cainiao is not publicly listed and does not disclose many operational details or, for that matter, how exactly it makes money.

In terms of revenues, both JD Logistics and Cainiao trail SF Express. Similarly to JD Logistics, that firm operates its own network. It still leads the market in “time-definite” delivery, a service that requires couriers to pick up and drop off parcels on a rapid, predetermined timetable. Like FedEx in America but unlike JD and Cainiao, it did not emerge from the tech industry, so lacks its rivals' technological chops.

Which model emerges victorious will ultimately depend on which best controls costs, thinks Eric Lin of UBS, a bank. JD Logistics may have to lower prices further as it tries to get more business beyond JD.com. Analysts predict it could lose a combined 12bn yuan over the next three



Money for something

Chinese tech giants, like those elsewhere, have thrived as covid-19 forced consumers to get their necessities and leisure online. This month Tencent, China's most valuable tech firm, reported another stellar set of earnings. Operating profit grew by 20% year on year in the first quarter, to \$6.5bn. Rather than sit on this money (or fork it out to shareholders), it has pledged to ramp up investments in its business. It isn't alone. As they vie for users, China's tech titans are spending more on research and development. Even after those expenses and administrative costs, they are awash with re-investable cashflow. A slug goes on marketing. But expect more to flow into new services.

► years, and turn a profit only in 2024. SF Express is spending heavily to try to match JD's and Cainiao's tech prowess. Its share price has fallen by around half since it issued a profit warning in April; it is expected to record a net loss of at least 900m yuan in the first quarter. Jefferies, an investment bank, points to SF Express's troubles as a clear sign of an ongoing price war.

In the long run Cainiao's asset-light model may enable it to keep spending in check. But for the time being it, too, is thought to be having trouble containing costs. Like its rivals it must fend off new specialist competitors offering cut-price services in areas like cold-chain and last-mile delivery. Average delivery prices in America have increased by about 5% annually in recent years, according to Bernstein, a broker. In China they have been falling at an average rate of 10% for the past decade. As China's online shoppers get their goods ever more quickly, investors may need to brace for longer waiting times before their logistics returns finally arrive. ■

Property deals

Second time lucky

BERLIN

A rare German mega-merger creates a giant landlord with political baggage

ROLF BUCH, chief executive of Vonovia, Germany's biggest residential-property company, says he has learned a lot since he tried and failed to buy Deutsche Wohnen (DW), the second-biggest, in 2015. Back then Mr Buch's hostile bid was an attempt to prevent DW from combining with third-ranked LEG. Neither deal came to pass.

On May 24th Vonovia said it is having another go, with the acquiescence of DW's management. "This time we will do better," Mr Buch promises. If the €18bn (\$22bn) all-cash deal wins the approval of DW's shareholders, it will create by far the biggest residential-property firm in Europe.

The duo's combined market capitalisation is €45bn. The enlarged Vonovia will manage 550,000 flats in all big German cities with a total value of some €90bn. Mr Buch and DW's boss, Michael Zahn, who will become his deputy, say it would save €105m annually in costs, thanks to cheaper sourcing of materials and other economies of scale, and free up money for investment in things like better insulation, helping to meet Vonovia's goal of making all its buildings virtually carbon-neutral by 2050.

Mergers between members of the DAX 30 index of Germany's bluest chips are rare—and mostly, like the takeover in 2001 of Dresdner Bank by Allianz, a big insurer,

ill-starred. They tend to be met with fierce opposition from unions, which appoint half the members of supervisory boards of listed companies with more than 2,000 employees. Vonovia placated workers' representatives with a promise of no job cuts at least until the end of 2023.

Unions were not the main obstacle to this particular corporate tie-up, however. Although rumours of the takeover began circulating last year, to proceed it needed a favourable ruling by Germany's constitutional court regarding an experiment with rent control in Germany's capital, Mr Buch admits. In February 2020 Berlin's local government, run by a coalition of Social Democrats, Greens and Die Linke, a hard-left party, imposed a five-year rent cap. Since more than 110,000 of DW's 160,000 flats are in Berlin, such a policy would permanently hurt the value of its portfolio.

Last month the court declared the rent controls unconstitutional. That removed the biggest hurdle to the deal. But there are others that Messrs Buch and Zahn must still overcome. For one thing, competition authorities are likely to take a close look, warns Marcel Fratzscher of the German Institute for Economic Research, a think-tank. Although the new behemoth would own only about 2.5% of German flats, the share would be much higher in poorer neighbourhoods of big cities such as Berlin, Kiel and Leipzig.

Even if regulators bless the deal, as seems likely, grassroots opposition will persist. A two-year-old campaign is gathering signatures to force a citywide referendum on September 26th, the day of federal elections, on whether to oblige firms that own 3,000 properties or more to sell them (at market rates) to the city, which could rent them out more cheaply. Messrs Buch and Zahn have tried to appease the campaigners by promising to sell 20,000 flats in the city to the local government and boost the housing stock by building another 13,000 for sale to Berliners. They also promised to cap annual rent increases at 1% in the next three years and link them to inflation in the subsequent two years.

Rouzbeh Taheri, a spokesman for the campaign, calls these concessions "white-wash". He is confident of securing the 175,000 signatures needed by June 25th to put the question on the ballot. Even if the vote takes place, and succeeds, it is non-binding. And were Berlin's local authorities to enact it, Vonovia would challenge it in court, where the firm has a good chance of prevailing. Mr Buch clearly thinks the risk of becoming a political punching bag is worth it. Vonovia is offering to pay 25% over DW's volume-weighted average share price in the past three months (which was admittedly depressed by the rent-cap episode), roughly equivalent to the book value of its portfolio after stripping out debt. ■

Cruise ships

Cabin fervour

An early victim of the pandemic seeks to refloat

THE LATEST addition to the fleet of Carnival, the world's biggest cruise operator, is the *Mardi Gras*. This ocean-going playground for 5,300 passengers comes complete with six different zones, including a "French Quarter", two dozen restaurants and a rollercoaster. It is set to arrive at its base in Florida in early June. That is a year behind schedule—but possibly just in time for a revival of the industry, which has been hit harder than just about any other by the pandemic.

Holidays afloat gave an early hint of covid-19's damage to international travel. Images of passengers stranded aboard modern-day plague ships prefigured lockdowns on land. Most pundits reckon cross-border tourism will not fully rebound until 2023. Yet cruising may steam ahead before then. "Where else can you go to bed at night and wake up every morning in a different, new, exciting place?" ventures Arnold Donald, Carnival's boss.

A break at sea is a small niche of the global tourist industry. Of the 800m or so foreign holiday-makers in 2019, only around 30m ascended a gangway. It was, though, growing fast, adding over 10m more seafaring tourists in a decade. And before the pandemic drowned the business in red ink, it was lucrative. The three companies that transport three-quarters of all passengers—Carnival, Royal Caribbean and Nor-►



Anchors aweigh


▶wegian Cruise Line—raked in combined operating profits of \$6.6bn on revenues of \$38bn in 2019.

With fleets mostly idle in the past year, cruise operators have been burning cash. Only a few of the world's 270 large cruise ships are at sea with paying passengers. Luckily for Mr Donald, investors seem to share his belief that the industry will roar back full-steam ahead. Carnival has had little trouble raising \$24bn of debt and equity over the past 12 months to tide it over; its rivals have also been able to tap the market.

Now demand is returning. Carnival's

bookings for 2022 are back at the higher end of historical trends, its boss reports. The industry continues to expand long-term capacity. Over 100 vessels are on order; none has been cancelled during the pandemic. Perhaps the biggest headwind is countries' fast-changing rules for international travel, especially in America. Half of all tourist seafarers are North American, double the number of Europeans, the next largest group, with China and other emerging markets far behind for now. Since the pandemic no ship has been allowed to set sail from an American port.

Mr Donald hopes that will change soon. Big cruise firms are trying to move things along by lobbying governments to allow vaccinated passengers who test negative for covid-19 to come onboard. That makes recent efforts by lawmakers in Florida to ban companies from using vaccine passports rather unhelpful. The Sunshine State is home to not just the *Mardi Gras* but also to America's largest cruise ports. ■

 Listen to our interview with the CEO of Carnival Corporation at economist.com/cruiseindustry

Bartleby The dangers of decision fatigue

Why breaks are actually good for productivity

“**H**AVE A BREAK” is a slogan associated with the popular chocolate snack, KitKat. But it may be pretty good advice for any manager or worker, minus the calories. The longer the shift, the less effective the employee may become.

In a new paper for *Royal Society Open Finance*, “Quantifying the cost of decision fatigue: suboptimal risk decisions in finance”, Tobias Baer and Simone Schnall examine the credit decisions of loan officers at a leading bank over the course of their working day. The academics write that decision fatigue “typically involves a tendency to revert to the ‘default’ option, namely whatever choice involves relatively little mental effort”. In other words, as you become tired, you get mentally lazy.

The study looked at proposals to restructure loans, with each credit officer analysing 46 requests per day. The approval rate was around 40%, so the default decision was rejection. Officers tended to start work between 8am and 10am, took lunch between 1pm and 3pm, and tended to leave at 6pm.

The researchers found that the approval rate declined significantly between 11am and 2pm, as lunch approached, then picked up again after 3pm before declining in the last two hours of work. The applications were distributed to credit officers by the bank's automated system, so they were in effect allocated randomly. There is no sign that the loans assessed at lunchtime were of a different quality from those in the rest of the day.

What makes this study ingenious is that the authors were able to see whether or not the loans were subsequently paid back. They found that rejecting a restructuring request made it less likely that the loan would be repaid. So they calculated that decision fatigue, by causing more

rejections, actually cost the bank money; around \$500,000 over the course of a single month.

Similar patterns have been seen in other situations. A much-cited study of Israeli judges found they were less likely to grant parole as lunch approached, but became more lenient once their stomachs were full again. Other research found that doctors grew steadily more likely to prescribe antibiotics, even when these might not be necessary, over the course of their shift. In some areas of work, breaks are seen as a vital matter of safety. In the EU, lorry drivers are expected to take a 45-minute break after 4 hours 30 minutes behind the wheel.

Mental activity can result in physical exhaustion, as anyone who has spent a day in successive meetings can attest. In the middle of a business trip, nothing can seem more enticing than the solitary silence of a hotel room, with no clients to amuse or placate in sight. Breaks can also boost creativity. It is easy for the brain to develop tunnel vision when it is working hard. There are times when the mind

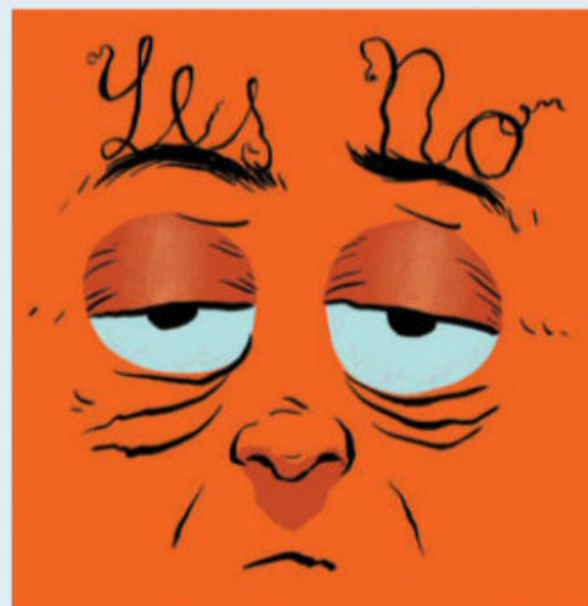
needs to roam free. Kevin Cashman of Korn Ferry, a consultancy, and author of a book, “The Pause Principle”, reports that executives say their best ideas often come when exercising, taking a shower or commuting.

Taking a break by leaving the workplace, if only to go to the coffee shop, may be the sole practical way for workers to recharge mental batteries. Many people have hobbies—puzzles, crosswords, knitting—that are enjoyable because they engage only part of their conscious minds but still stave off boredom.

However, such pastimes are regarded as impermissible at the office. This is ironic since they are unlikely to disturb anyone else, whereas chatting with a colleague, which is all too likely to do so, is seen as a perfectly acceptable diversion. One of the nicest elements of working from home during the pandemic has been the ability to take breaks at the time, and in the style, of the employee's choosing (subject to the tyranny of the Zoom conferencing calendar).

The lesson for managers is that what seems like “slacking” is actually a useful device for maintaining productivity. And the study of credit officers indicates that companies should look for ways to protect workers against decision fatigue.

One approach would be to give employees more breaks, of course. But another might be to monitor decisions at certain times of the day. The bank that was the subject of the study could have ensured that loan decisions made just before lunch, or at the end of the day, were subject to review. Software could be used to “nudge” employees with a message like: “Your decision-making seems to have changed, maybe you want to take a break and reconsider.” A pause should win applause.



Schumpeter | AT&T in a spin

Not all U-turns are bad. How to make sense of corporate cock-ups



“SORRY” IS NOT a word you hear often in business. Japanese miscreants may bow in shame. But in the West even architects of some of the world’s most spectacular strategic blunders struggle to express remorse. It took Gerald Levin, boss of Time Warner, a decade to apologise for what he finally admitted was “the worst deal of the century”—the \$165bn merger of the media giant with AOL, an internet firm, in 2001, during the dotcom crash. It was unravelled, ignominiously, eight years later.

Who knows when—or indeed if—Randall Stephenson and his former lieutenant, John Stankey, will acknowledge how wrong they were to mastermind the \$110bn acquisition of Time Warner by AT&T, which they completed in 2018. The combination created a company weighed down by huge debts, a high dividend and onerous investment demands. A mere three years later it, too, is being dismantled, with the media business spun out and merged with Discovery, another media firm. Mr Stankey, who took over from Mr Stephenson as the telecoms giant’s boss last year, has bowed not in shame, but to the inevitable. It was U-turn or bust.

What to make of such strategic reversals? It is usual to see them all as an indictment of megalomaniacal empire-builders and money-grubbing bankers, at the expense of staff and long-suffering shareholders. And yet business, by its nature, is full of death-traps. Risks must be taken. Wrong turns happen. Course corrections are inevitable. Not all about-turns merit the equivalent of *hara-kiri* in the C-suite. Here is a rough guide to when they should and should not be tolerated.

Start with experimentation, the essence of business in a world of constant flux. Most mergers and acquisitions are small, incremental bets. The payoffs can be large. When they go wrong, they cost shareholders money and generate bad headlines, but are forgivable if placed in a spirit of trial and error. Take Verizon, AT&T’s telecoms rival. The firm, now valued at \$235bn, spent less than \$10bn on AOL and Yahoo, its fellow internet pioneer, in the mid-2010s, hardly breaking the bank as it sought to build a media arm. Their sale, for \$5bn plus 10% of shares in May, though embarrassing, marked a retreat, not a rout—certainly compared with the tens of billions of shareholder value that analysts believe AT&T torched on its media binge. Call it misadventure, not madness.

Then there is speculation. Some firms make a living by buying and selling other companies, often using flimsy rationales to justify the purchases. U-turns are an occupational hazard. Headlining this group is SoftBank, a Japanese tech conglomerate, whose twists and turns can cause motion sickness. It has flipped Sprint, an American mobile operator, and is in the process of doing the same with Arm, a British chip designer. Son Masayoshi, its billionaire founder, once portrayed both as strategic acquisitions. Even Warren Buffett, the no-frills chairman of Berkshire Hathaway, a bigger, less techy conglomerate, occasionally pirouettes. Last year Berkshire dumped its holdings of airlines in America as the pandemic raged, just months after increasing its stakes. Airlines have rallied since. “I don’t consider it a great moment in Berkshire’s history,” Mr Buffett conceded recently, “but we have more net worth than any company on Earth.”

Acquisitions are not the only danger zone. Sometimes a firm’s long-term strategy implodes, requiring a big rethink. GE, an industrial group, boasted that GE Capital, its financial arm, was a profit-making machine before discovering that it was also a risky liability when the subprime crisis hit. Airbus, a European aerospace company, halted production of its A380 superjumbo after realising, 12 years into the programme, that airlines did not want it. Intel, no longer the world leader in chipmaking, will rent out some of its production facilities to others, as a foundry. These fall into the category of course corrections, not full-scale flip-flops.

The screeching handbrake turn is in a different league. AT&T is not the only stodgy firm to have tried—and spectacularly failed—to reinvent itself overnight. Under its flamboyant boss J6M (Jean-Marie Messier *Moi Même, Maître du Monde*), Vivendi, born out of a French water-and-sewage company, sought 20 years ago to re-fashion itself as a global entertainment giant, becoming one of France’s biggest corporate casualties in the process. European lenders, as well as Japan’s Nomura, an investment bank, have lost fortunes trying to become racier by buying Wall Street firms. Still, none compares to AT&T and Time Warner for the number of U-turns running through their combined corporate history.

It is worth watching out for three danger signs. First, be alert when deals are billed as transformative. Looking through the fine print of AT&T’s purchase of Time Warner, the main justification, to track customers to sell advertising, was flimsy; it did not warrant the cost. Yet shareholders blithely gave it their blessing. Second, it was no small experiment: the whole company was put on the line. Third, it produced big opportunity costs. The acquisition of Time Warner and DirecTV, a satellite-TV company, in 2015, turned AT&T into America’s biggest non-financial corporate borrower. That constrained it when it needed to spend on 5G mobile spectrum and the Hollywood streaming wars. Even with the Discovery deal and its first dividend cut in decades, it is not out of the woods.

U-turn, you pay the price

The moral of the story is that when deals go wrong, the faster they are unravelled the better. But when they are so big that they jeopardise the future of the firm, accountability is vital, too. Mr Stephenson pocketed \$90m from AT&T between 2018, when the Time Warner deal was completed, and the end of 2020, when he left the post of executive chairman. Mr Stankey has earned \$60m. Mr Stephenson is gone. Mr Stankey should go, too, if nothing else than to serve as a deterrent against future acts of M&A madness. There may be no apologies in business. But failure on such a grand scale should at least carry a price tag. ■



Business investment

The coming capex carnival

Companies across the world are spending big. We analyse their investment plans

AS LOCKDOWNS LIFT across the rich world, people are going out and spending. Australia's restaurants have been crammed for months. America's shopping malls are filled with people splurging stimulus cheques. Cinemas in Britain, which were allowed to reopen in mid-May, are packed once again. Yet behind the scenes another, potentially more significant, spending bonanza is just beginning.

Businesses are starting to invest in huge numbers. In America capital spending (or capex) by companies is rising at an annual rate of 15%, both on the hard stuff, such as machines and factories, and intangibles, like software. Firms in other parts of the world are also ramping up spending. Forecasts for business investment have never looked so rosy. Analysts at Morgan Stanley, a bank, predict a "red-hot capex cycle". Overall global investment, they reckon, will soar to 121% of pre-recession levels by the end of 2022 (see chart 1 on next page). Oxford Economics, a consultancy, argues that "the time looks right for a boom in capex", while IHS Markit, a research firm, forecasts that global real fixed invest-

ment will rise by more than 6% this year.

Today's optimism marks quite a change from the pre-pandemic norm. In America gross domestic business investment, as a share of GDP, had been sluggish since the early 1980s. After the financial crisis of 2007-09 it took more than two years for global investment, in real terms, to regain its previous peak. By contrast, although investment fell more steeply at the start of the pandemic, it has been quicker to bounce back this time. The prospect of surging capex holds out promise that the

global economy will not face a repeat of the 2010s, when growth in productivity and GDP stayed stubbornly below pre-crisis trends. Investment in new products, technologies and business practices is, after all, the foundation for higher incomes and a better quality of life. So what is behind the capex cheer—and could it last?

To understand why analysts are so upbeat, consider the firms included in the S&P 500, America's main stockmarket index. Together they account for about one dollar in seven of total rich-world corporate capital formation. In a recent report Bank of America analyses these companies' earnings calls since 2006, and concludes that executives are at their most bullish about capex. *The Economist* has looked at the biggest 25 non-financial firms in the S&P 500 and found that analysts' expectations for capex in 2021 have risen by 10% in the past year.

For now the investment recovery is concentrated in a few industries. We find that global tech firms are expected to boost capex by 42% this year, relative to 2019. Apple will invest \$430bn in America over a five-year period, an upgrade of 20% on previous plans. Taiwan's TSMC, the world's largest semiconductor-maker, recently announced that it would invest \$100bn over the next three years in manufacturing. Analysts reckon that Samsung's capex will rise by 13% this year, having gone up by 45% in 2020.

Tech companies are spending so freely in part because the pandemic has created ▶▶

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68 ...and morbid property deals in France

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▶ new demands. More shopping happens online. Remote work is on the rise. New equipment and software is needed for these to run smoothly. Recent research by Nicholas Bloom of Stanford University and Steven Davis and Yulia Zhestkova of the University of Chicago finds a big rise in the share of patent filings for work-from-home technologies. UBS, another bank, reckons that shipments of computers for commercial use will rise by nearly 10% this year, an acceleration even over the last.

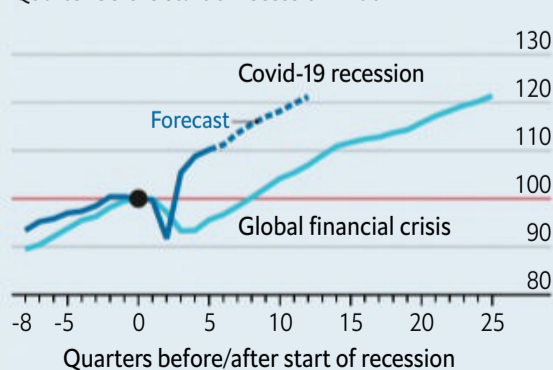
Tech firms are not the only enthusiastic spenders. Firms in the S&P 500 that focus on discretionary consumer spending boosted capex by 36% year-on-year in the first quarter. Companies such as Target and Walmart, two retailers, are trying to keep up with the online giants that are eating their lunch. Marks & Spencer, an august British retailer, recently announced that it had launched 46 new websites in overseas markets from Iceland to Uzbekistan.

Other retailers are spending frantically to expand capacity, having been caught out by the surge in household spending. Everything from sofas to hot tubs is in short supply. Earlier this year Peloton announced “substantial incremental investments” in expediting the transport of its exercise bikes from Taiwan. Maersk, a shipping firm, recently said it would buy more containers to ease bottlenecks. The global order-book for enormous container ships has risen from 9% of the existing fleet, in October, to over 15% in April.

The big question is whether the emerging capex boom augurs a broad and lasting shift away from the weakness of the 2010s, or is simply an enthusiastic but temporary response to reopening. Not everyone is boosting capex: our analysis suggests that about half of the companies in the S&P 500 are not expected to invest more in 2021 than they did in 2019. Global oil-and-gas firms are cutting back by a tenth relative to pre-pandemic levels, possibly in response to lower expected demand for their planet-warming fare. Airline operators are also dialling down spending, perhaps because

On a spending spree

Global real investment*
Quarter before start of recession=100

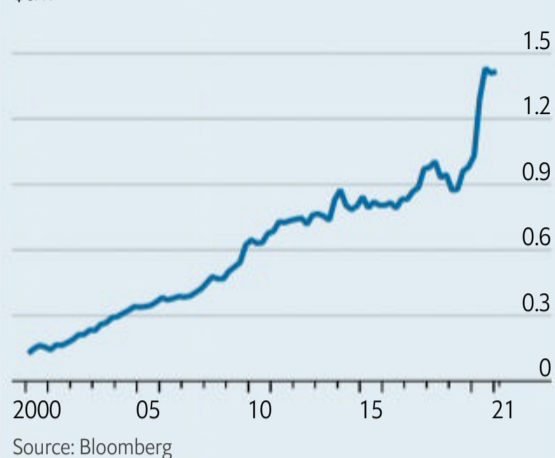


Sources: Haver Analytics; Morgan Stanley Research forecasts; national statistics

*Average weighted by purchasing-power parity

Feeling flush

S&P 500 non-financial firms, cash holdings
\$trn



Source: Bloomberg

they expect it to be a while before people can travel freely again. Many executives, including those from raw-materials and industrial-goods firms, continue to preach capital discipline. It may be quite a leap for them to go from a decade of austerity to boom time.

Another worry is the trend towards greater consolidation in industries from hotels to mining, which seems unlikely to have been reversed by covid-19. Research by the IMF suggests that companies with market power may be less keen on investing. In the five years before the pandemic, for instance, American business investment in hotels was barely higher than it was in the five years before the financial crisis, even though demand was far higher.

Set against that, though, economic conditions today could convince reluctant companies to loosen the purse-strings. In contrast to the post-financial-crisis period, households have a lot of savings to spend. A more decisive fiscal and monetary response this time has also allowed firms to load up on cash (see chart 2). Bond issuance by investment-grade-rated American companies jumped to a record \$1.7trn in 2020, up from \$1.1trn in 2019, according to S&P Global Market Intelligence, a research outfit.

Moreover, the economic reallocation provoked by covid-19, and its investment implications, will be felt for some time. Managers in certain industries, especially semiconductors, already accept that they went into the pandemic with too little spare capacity, and are promising multi-year projects to make up for it. Perhaps most important, the pandemic is leading to an era of greater technological optimism. The rapid deployment of entirely new business models when covid-19 struck, not to mention vaccine discovery, may have reminded bosses of the payoff to investing. All that might explain why the expectations for capex by S&P 500 firms in 2022 are even more ambitious than those for this year. The investment boom may only be getting started. ■

The euro zone

Dividing lines

Activity is surging as lockdowns end. But the recovery will be unequal

KNOCKED BACK by several bouts of covid-19, Europe's economy is now finding its feet. Its vaccination drive is charging ahead, and lockdown restrictions are easing. On May 17th Italy's curfew moved from 10pm to 11pm, and on May 19th Parisians were allowed to return to their beloved cafés, after six months without. German companies are at their most optimistic in two years, according to figures released on May 25th, and wider economic sentiment is surging. The relief is widespread. The recovery will be less so.

Europe went into the covid-19 crisis with scars still unhealed, as northern countries, such as Germany, outperformed southern ones, such as Spain and Italy. The pandemic rubbed salt in the wounds. Between the final quarter of 2019 and the second quarter of 2020 household consumption in Spain and Italy fell by 30% and 20% respectively, compared with just 11% in Germany. Punishing lockdowns and a drought in tourist revenues have prolonged the pain. By the end of 2020, con- ▶▶

On the mend

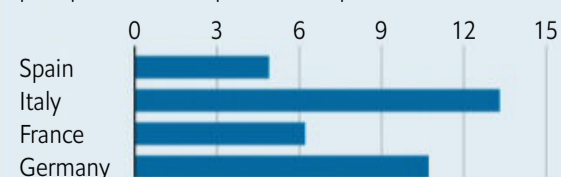
Job openings, February 1st 2020=100



Excess household saving, extra saving in 2020 compared with 2019, % of disposable income in 2019



Planned consumer spending*, % increase post-pandemic compared with April 2021



Sources: Indeed; OECD; UBS Evidence Lab

*Based on survey responses, weighted by income



Virtual event, June 17th 2021, 7:30am PDT | 10:30am EDT | 3:30pm BST

Shifting sands: Navigating risk from the C-suite

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sumption in Italy and in Spain was more than a tenth below its pre-crisis peak, compared with a shortfall of 6% in Germany and 7% in France.

Some indicators suggest that the worst-hit countries are bouncing back faster. Mobility data from Google from mid-May suggest that travel for recreation and retail was returning to normal more quickly in Italy and Spain than in France and Germany, perhaps because they reopened earlier. Others indicate divergence. Figures from Indeed, a job-search platform, suggest that the recovery in vacancies posted by em-

ployers in Italy is well ahead of those in France and Germany, let alone Spain (see chart on previous page).

Beyond the immediate bump associated with fewer restrictions at home, three factors will influence the evenness of the recovery. The first is the extent to which external constraints ease. Looser travel restrictions are important for Spain, where revenues from tourism made up 12% of GDP before the pandemic. The strength of Germany's industrial boom, meanwhile, relies on bottlenecks along the supply chain being resolved.

The second factor is the extent to which consumers spend their accumulated cash. Their larger piles of "excess" savings could help harder-hit countries catch up. Compared with the French and the Germans, Italians and Spaniards stashed away much more in 2020 than they did in 2019. That does not mean they will spend all of it, though. A survey of 5,000 European consumers by UBS, a bank, suggests Spanish consumers plan to splurge less than others. Given the sorry state of the labour market, that caution is hardly surprising. In March the unemployment rate was 15%, ▶▶

Buttonwood The anti-fiat punto

The boundary between crypto and fiat money is more permeable than you think

FINANCE HAS its squabbling tribes, much like the rest of society. A contest that attracts a lot of attention just now is the demographic-cum-digital divide between crypto kids and fiat dinosaurs. The crypto kids believe that blockchain-based finance is the future and a haven from the inevitable degradation of fiat money. In the opposite corner are the titanosaurs of the fiat world, the central bankers. "I'm sceptical about crypto assets, frankly, because they are dangerous," said Andrew Bailey, the Bank of England's boss, this week.

This is a good moment for the dinosaurs. The dollar price of bitcoin, the mainstay of crypto assets, fell from \$58,000 or so in mid-May to around \$33,000 in the space of a couple of weeks. The steepest part of that decline came after Tesla's chief executive, Elon Musk, said his firm would suspend its policy of accepting bitcoin for purchases of its cars. A pledge by Chinese regulators to crack down on the mining of bitcoin gave the sell-off additional impetus.

The consequences have so far been few. Because there has been no visible collateral damage, crypto has been widely seen as a side-show in financial markets. This view is too dismissive, though. Crypto, like gold, is built on a collective belief about its value. But so to an extent are all asset prices. And crypto is moving past the point where it can be considered its own self-contained world.

To understand bitcoin's ascent it helps to go back to the work of Thomas Schelling, a Nobel-prizewinning economist and game theorist. Schelling contended that people are often able to act tacitly in concert if they know that others are trying to do the same. Many situations throw up a clue, a "focal point", around which people can co-ordinate

without explicitly agreeing to do so. For instance, if asked to pick a positive number, people will offer a variety of responses—one, seven, 100 and so on; but if asked to choose a number that others will also select, there is a preponderant choice: the number one.

This insight applies to certain assets that lack intrinsic value. The investment case for gold, said Schelling, can best be explained as a solution to a co-ordination game. Gold bars have value because enough people tacitly agree that they do. Their value is bolstered by their scarcity, and their longevity. Willem Buiter, a prominent economist, once aptly called gold the "six-thousand-year-old bubble". Bitcoin is newer, but similar. Yes, the technology behind it is ingenious (although Ethereum, the next-most-valuable crypto asset, arguably has the more compelling user case). And, yes, bitcoin is used in transactions, if no longer for Tesla's cars. But its selling points are scarcity and fame. It is a natural focal point. As with gold, you can make a theoretical case that it is proof against paper-money inflation.



The latest gyrations seem to confirm that crypto is a walled garden unconnected with the rest of finance. But if you look more closely a different pattern is emerging. There is already a pathway linking crypto prices with gold. Flows into exchange-traded funds (ETFs) that invest in gold started to revive just as money was flowing out of bitcoin futures and ETFs, according to a recent analysis by Nikolaos Panigirtzoglou of JPMorgan Chase, a bank. That suggests that institutional investors are shifting back into gold after a flurry of interest in crypto, because bitcoin prices had risen too quickly. Viewed this way, the fall of bitcoin and the revival of gold are a relative-value trade within the broader set of inflation hedges.

Furthermore, it is hard to shake off the feeling that crypto-crashes now matter. This is the third bear market in four years, but a lot more money is now involved. The market capitalisation of cryptocurrencies tracked by a specialist website, coingecko.com, was more than \$2.5trn in mid-May. A fortnight later it had fallen to \$1.5trn. That is a big loss in anyone's money. Crypto prices are creeping up again, so those losses are already being eroded. But at each new peak, the asset class looms ever larger. And a dollar lost in crypto investing is the same as a dollar that was once earned or borrowed—even if, at present, it is hard to know precisely who bears the loss.

There is something else to consider. Cryptocurrencies are highly speculative assets. It is thus hard not to think of their prices as a signal of shifts in risk appetite more broadly. Beliefs matter for all sorts of asset prices, whether in dollars or bitcoin. You might be able to dismiss this crypto-crash. But the next one will be harder to ignore.

▶ three times that in Germany.

The third factor influencing the recovery is the strength of governments' fiscal response. A fear of divergence has already motivated the EU's recovery fund. This will direct more cash to Italy and Spain, and could boost growth there by more than twice as much as in France and Germany, reckons S&P, a rating agency. But at a meeting on May 21st-22nd economists from Bruegel, a think-tank, warned European finance ministers that they might need to go further. Given that many forecasters expect the EU not to reach its pre-pandemic level of output until 2022, another round of stimulus could help tackle the other inequalities that have arisen during the pandemic, such as the extra burdens borne by the young and the less educated.

Look beyond the immediate recovery, and the prospects for convergence seem limited. Support from the recovery fund notwithstanding, the IMF's latest forecasts suggest that Italy's economy will shrink by 0.1% between 2019 and 2023, while Spain's expands by a paltry 1.9%. France and Germany, meanwhile, are expected to grow by 2.9% and 3.5% respectively. Without more support, the economies that were lagging behind even before the pandemic will see their recovery slow to a crawl. ■

Covid-19

The best public investment ever

HONG KONG

What will it cost to end the pandemic?

ON MAY 2ND thousands of masked nurses, doctors and others who have battled against covid-19 watched Jennifer Lopez and other stars perform in the flesh at the "VAX live" concert in Los Angeles. Outside the venue, visitors could get their jab from the comfort of their own vehicles, while watching H.E.R., a singer-songwriter, perform the song "Glory" in the car park, surrounded by schoolkids stomping their feet. A live concert was possible only because many Americans (50% of adults) are now vaccinated. But a charity event of this kind was necessary only because most of the world is not.

What would it take to close the gap? In a paper published in April, Ruchir Agarwal of the IMF and Tristan Reed of the World Bank argued that it might be possible to end the "acute phase" of the pandemic early next year by vaccinating 60% of the population of every country. Will there be enough shots to go round? In principle, yes. According to Airfinity, a life-sciences data firm, vaccine-makers could produce

as many as 11.1bn doses this year, enough to inoculate more than 75% of the world's population aged over five. The manufacturers themselves say they will produce many more.

Some of this capacity is already spoken for. But rich countries have hogged less of it than many people fear. Mr Agarwal and Mr Reed calculate that rich countries have placed advance orders for about 2bn courses (many of which comprise two shots). At the same time, the developing world already has dibs on more vaccines than some people assume, thanks to deals struck by organisations like the African Union and COVAX, a vaccine-sharing initiative. Mr Agarwal and Mr Reed calculate that 91 developing countries (with a combined population of over 2.5bn people) need to order only another 350m courses between them to vaccinate 60% of their population. India faces a bigger shortfall. But it also has the dollars and domestic manufacturing capacity to reach the target eventually.

Mr Agarwal and Gita Gopinath, the IMF's chief economist, have now turned this insight into a broader \$50bn "proposal to end the covid-19 pandemic" (see chart). Only \$4bn of the headline total is necessary to buy the 350m extra vaccination courses. The rest is earmarked for other tasks, such as helping countries get vaccines into people's arms, keeping a lookout for new variants, expanding testing and treatment, and adding another 1bn doses of vaccine-making capacity next year as insurance, in case anything goes wrong. Not everything on their wishlist is costly. The two economists reckon the developing world could vaccinate almost 40% of its population by the end of 2021 if rich countries donated even half of the surplus vaccines they are likely to amass this year.

The proposal is ambitious. But circumspection will only make the problems posed by the pandemic harder to fix. Without firm commitments to buy vaccines, manufacturers will have less reason to resolve any bottlenecks in their supply chains. A scarcity of shots will encourage

counterproductive bans on exports of vaccines and materials. If poor countries do not know when vaccines will arrive, they will find it harder to prepare a successful roll-out. And slow vaccination will make new variants more likely.

Conversely, an early end to the pandemic could add as much as \$8trn (at market exchange rates) to global GDP spread over the next few years, according to the IMF, and raise tax revenues in the rich world by \$1trn. "Funding this proposal", the authors argue, "may possibly be the highest-return public investment ever." Glory, indeed. ■

Inflation

House on fire

What America's hot housing market means for consumer prices

THE AMERICAN economy last year may have suffered its deepest downturn since the Depression, but you would not know it from house prices. The Case-Shiller national house-price index is rising at an annual rate of 13%, its fastest for more than 15 years (see chart on next page). Lower interest rates have encouraged people to take out bigger mortgages, and trillions of dollars of fiscal stimulus have let people spend more on housing.

Yet as prices have breezed ahead, rental growth, which usually follows suit, has sharply slowed. And whether rents catch up or not matters, because they play an outsize role in America's consumer-price inflation statistics. In a recent note analysts at Goldman Sachs, a bank, ranked housing costs among their three main "upside" risks to inflation, together with wages and inflation expectations. Alan Detmeister of UBS, another bank, went further, arguing that "it is only a small exaggeration to say that there is no single variable on which global financial markets depend more this year than US rents." The behaviour of rental inflation could influence the Federal Reserve's decision to withdraw its support for the economy—which would in turn affect everything from the strength of America's recovery to the valuations of an array of assets.

America's statisticians, like those across the rich world, do not include house prices in inflation metrics: the thinking runs that house purchases are in large part an investment, rather than purely a consumption good. Instead they focus on two other measures of housing costs. One is the rents actually paid by tenants. The other is an estimate of what homeowners would need to pay in order to rent their ▶

The shopping list

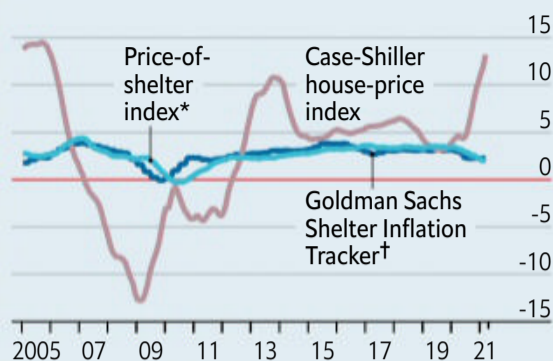
IMF proposal to end the pandemic
Funding gap, \$bn

20	Extra testing, treatments and protective equipment
8	Adding vaccine capacity in 2022
6	Preparing for vaccine roll-out
4	Extra money for COVAX to buy vaccines
4	Strengthening public-health systems
3	Checks for new variants and supply-chain shocks
3	Other measures
2	Evaluating dose-stretching strategies
nil	Ensuring free trade in vaccines and materials
nil	Donating surplus vaccines

Source: "A proposal to end the covid-19 pandemic", by Ruchir Agarwal and Gita Gopinath, IMF, May 2021

Suburban sprawl

United States, housing-cost measures
% change on a year earlier



*Component of personal-consumption-expenditure inflation

†Weighted average of four rent measures

Sources: S&P Global; Goldman Sachs; Bureau of Economic Analysis

► house. Despite boomy prices, rents are rising at just 2% a year, about half the pace seen just before the pandemic.

Economists puzzle over this divergence. Americans' growing fondness for homeownership means more competition for owner-occupied properties but less for tenancies. Renters are more likely than homeowners to have lost their jobs in the past year, and may thus have negotiated rent holidays or discounts. Some landlords in San Francisco are so desperate for new tenants that they are even offering bonuses to people who sign a lease.

Over the long run, however, economic theory suggests that rents and prices should move in tandem (ie, the ratio of house prices to rents should be stable). If rental growth catches up with prices, that could have a big effect. Rents make up one-fifth of the basket used to calculate "core" personal-consumption-expenditure (PCE) inflation, which excludes food and energy—the gauge most closely watched by the Fed. If annual rent inflation rose to 4% a year—not far off where it was shortly before the pandemic—overall core inflation would rise by 0.5 percentage points.

Could this happen? As the economy recovers, landlords may hope to make up for lost time. "We expect a rental-market resurgence in 2021," said Zillow, a property firm, in a report in December, "with rents increasing...and demand for rental housing strengthening." A recovery in low-wage employment should boost rents: housing-cost inflation tends to rise when the unemployment rate falls. A survey by the New York Fed in April found that households expected rents to rise by 10% in the coming year, up from expectations of 5%, on average, in 2020.

Rental inflation is thus likely to rise in the coming months. But by how much is another question. There are reasons to think the price-to-rent ratio could settle at a permanently higher level. When interest rates are so low, for instance, people are willing to pay more for the right to a given

Property in France

Terminal value

PARIS

A ghoulish financial product gets a fresh lease of life

WHO HAS not dreamed of owning a *pied-à-terre* in Paris, or perhaps overlooking the Mediterranean? How about betting on the timing of a perfect stranger's death? In France you can combine the two. In sales of property *en viager* a buyer pays upfront for a residence while getting the keys only when the current owner dies. Covid-19 has revived interest in the morbid scheme.

The concept of *viagers* is nearly as old as property; rules laying out its modalities go back over a thousand years. Typically the seller gets cash for around a third of the value of the home at the time of the sale. Monthly payments from the buyer should add up to something nearer the full value of the property—assuming the seller dies at the time suggested by actuarial tables.

For sellers not afraid of tempting fate, *viagers* offer the chance to cash in on their homes yet stay in them, with an

income to boot. That appealed all the more as covid-19 began to spread, and death rates in retirement homes soared. Specialist brokers reported a surge in enquiries as elderly people sought to remain in their homes for longer.

Even then, the estimated 5,000 *viager* deals signed in France every year represent less than 1% of all property sales. But the scheme's long-expected demise never seems to come. Authorities promote it as a tax-efficient way for pensioners to cash in on rising property prices. *Viagers* also allow buyers to invest in property without a mortgage—the lender is, in effect, the seller-cum-tenant for life. The discount on properties sold for occupation at an unspecified time in the future is also an attraction.

Buyers of *viager* properties have to guess how long the kindly old grandfather on the other side of the deal has left. Ads for such sales come with descriptions of the place in question—and details of the age of the seller. Canny widows looking to cash out are known to light cigarettes ahead of visits by potential buyers to hint at their unhealthy lifestyles. All parties are aware of the industry's freak event. In 1965 a 47-year-old notary bought a home *en viager* from a frail 90-year-old lady. He died 30 years later, but his widow kept making annuity payments, as the seller, Jeanne Calment, lived on to the world-beating age of 122.

Fans of *viagers* point out that betting on death is hardly unusual in finance: just look at the life-insurance industry. But the sinister undertones of such arrangements are hard to shake off. Some buyers have been suspected of hurrying nature along. In at least two murders currently in front of courts, authorities allege buyers did away with their tenants to gain possession of *viager* properties.



Don't bet on it

stream of income. American price-to-rent ratios are higher today than in the 1980s, which coincides with declines in real interest rates.

A slower pace of housing construction may also keep price-to-rent ratios higher, suggests a new paper by Christian Hilber of the London School of Economics and Andreas Mense of the University of Erlangen-Nuremberg. In thriving areas where the supply of housing is constrained, buyers may be willing to bid up prices in the expectation of strong rental growth in the future. In recent years America has become

worse at building new houses, in part because of tougher land-use regulations.

American price-to-rent ratios could of course adjust in another way—through prices falling, rather than rents rising. Just as share prices are more volatile than dividends, house prices are more up-and-down than rents. And Mr Detmeister's historical analysis suggests that two-thirds of any adjustment in price-to-rent ratios tends to fall on prices. In other words, America might be able to have either a strong housing market or quiescent inflation—but not both. ■

Investing in China

The cross-border chase

HONG KONG

Foreign investors have long had little recourse when Chinese firms go bust. That could be changing

DISSIDENTS, SMUGGLERS and rogue executives have been hiding out on either side of the 40km border between Hong Kong and China for generations. Despite being part of the same country since 1997, the two jurisdictions have separate legal systems with limited interaction. Chinese companies have crossed the border in droves since the 1990s to access global capital markets. Investors, trusting in Hong Kong's independent legal system, have met them there, cash in hand. But when Chinese groups struggle to repay their debts, investors seldom attempt to chase them back over the border, where the bulk of the companies' assets are located. Enforcing cross-border claims has been excruciatingly difficult and often futile. That could now be changing, with important consequences for creditors both at home and abroad.

Global investors have long accepted the tenuous links between their money and Chinese assets. Take, for example, the legal structures known as variable-interest entities (VIEs) that have been used to connect hundreds of billions of foreign investors' dollars with Chinese-issued shares, despite having scant legal recognition in China. In the debt markets so-called keepwell deeds have thrived as a way of keeping offshore investors' nerves under control. They are a type of promissory note that obliges parent groups to help pay back investors should an offshore subsidiary default. But no investor has ever successfully used these notes, which back some \$90bn in dollar-denominated bonds, to force onshore companies to pay offshore debts. Creditor committees have been used to restructure debts that span the border. But more broadly it is rare that a Chinese court dealing with an insolvency case has recognised proceedings launched outside the mainland, including in Hong Kong.

The recent turmoil unleashed by Huarong Asset Management, a state-owned Chinese financial firm with \$22bn in offshore debts, could cast a harsh glare on the disconnect between courts in China and Hong Kong. Huarong is the largest Chinese issuer of dollar-denominated debt, and the largest user of keepwell deeds. The Beijing-based group has not published its financial statements for 2020, leading to speculation that it will be restructured. Its troubles have sent yields on other state-backed debt soaring. Given the size of its borrowings and the scope of investors exposed to Hua-

rong, a default by the group would force asset managers and hedge funds to rethink how they invest in state companies.

One question is whether keepwell deeds live up to their name. In January administrators in Beijing rejected creditors' cross-border claims on Peking University Founder Group, a tech company linked to one of China's top universities, because its keepwell deeds were based on English, not Chinese, law. The decision does not bode well for Huarong's creditors. Investors fear that any restructuring will prioritise onshore bondholders over those sitting just south of the Chinese border. "Keepwells will either go away or be redefined," says Alaa Bushehri of BNP Paribas Asset Management. Huge losses stemming from Huarong could even damage Hong Kong's reputation. "Cross-border investors may not find enough protection in Hong Kong, which may hurt its role as a fixed-income offshore centre for Chinese firms," Natixis, a French bank, noted in a research report.

Keepwells may not be a ticket across the border. But a parallel test of the legal firewall between China and Hong Kong is also playing out this year. On May 14th courts on both sides of the border said they could begin to mutually recognise some insolvency cases. The pilot project will help courts in Shanghai, Shenzhen and Xiamen acknowledge restructuring or liquidation orders from Hong Kong courts that involve assets in the three mainland cities.

The scope for the test is narrow. Claimants must prove that the company's "centre of main interests" is in Hong Kong. This could be tricky; most Chinese firms listed in Hong Kong are incorporated in offshore centres such as the Cayman Islands. Over time, though, as courts on both sides of the border become more familiar with each other, it could "potentially break down the high barrier" between mainland China and Hong Kong, says Look Chan Ho, a barrister in Hong Kong who helped design the pilot. That could take years, warns another lawyer, who sees the pilot as largely symbolic.

Nevertheless, cross-border recognition for insolvency cases has taken on a new urgency for Chinese courts. It is not just foreign investors who are anxious for recourse. In recent years Chinese groups have fanned out across the globe, hoovering up flashy assets. Many, notably HNA, an airlines-to-finance conglomerate, have fallen on hard times. State creditors are eager to recover their losses by making claims on foreign assets, but may need recognition from foreign courts to do so. Reciprocity could help the Communist Party clean up the corporate mess.

China has not adopted the UN's framework on cross-border insolvency, which is widely used for international restructuring. But its courts are seeking recognition abroad. In 2019 a bankruptcy case under Chinese law received recognition by an American court for only the second time. That ruling stopped other claims on the Chinese firm's assets in America. In 2020, a Hong Kong court recognised a Chinese insolvency case concerning CEFC Shanghai International, part of a failed conglomerate that had gone on a spree in former Soviet republics. Both cases show that traffic between China and the rest of the world is increasingly two-way—leaving troubled executives with nowhere to hide. ■



Free exchange | Hot stuff

When does transitory inflation become sustained? Some lessons from the 1970s



AT NEARLY 43 years old, the median American worker has never in her career experienced an annual rate of “core” inflation, which excludes volatile food and energy prices, above 3%. That will soon change. Core consumer prices in America rose by 0.9% month-on-month in April, the highest jump since 1982, practically guaranteeing that the annual rate will exceed 3% in the near future. Some economists sense the first stirrings of an outbreak of sustained high inflation, like that which afflicted many countries in the 1970s. But prevailing theories of inflation suggest that, for now at least, this threat remains remote.

The Great Inflation, as the episode in the 1970s is often called, led to radical revisions in macroeconomic thinking. Until then Keynesian economists believed that a permanently lower rate of unemployment could be achieved by accepting higher inflation. Critics of this view, like Milton Friedman and Robert Lucas of the University of Chicago, thought differently. In the long run, they argued, the unemployment rate was determined by an economy’s structural features. A government using easy money to push joblessness below this “natural” level would fail. Instead, inflation would accelerate as people learned to expect faster price growth.

The Great Inflation lent credibility to the critics. But Friedman’s monetarism—the view that inflation in the long run was determined by growth in the money supply—also proved inadequate. Central banks that tried to target money growth found its relationship with inflation to be unstable. They have since been guided by a hybrid “New Keynesian” framework, where inflation is determined by three main factors: the effects of supply shocks; the extent to which the economy is operating above or below capacity; and people’s expectations of inflation. The debates around the probable trajectory of inflation today hinge on these variables.

Start first with supply shocks. The current inflation spike is clearly rooted in disruptions relating to the messy process of reopening. Supply shocks featured prominently in the Great Inflation as well, which might suggest that a short-term problem can quickly become entrenched. But a closer examination of that episode provides some reassurance. Work by Alan Blinder of Princeton University and Jeremy Rudd of the Federal Reserve suggests that the Great Inflation in fact reflected two distinct phenomena: a

persistent problem of too much demand, overlaid by short bursts of supply-side pressures. Shocks to food and energy markets led to dramatic spikes in inflation in the 1970s. But Messrs Blinder and Rudd point out that inflation quickly dropped when these shocks abated. Headline inflation in America rose by nine percentage points from 1972 to 1974, but by 1976 had fallen by seven percentage points. That suggests that supply pressures today should ease when disruptions are resolved.

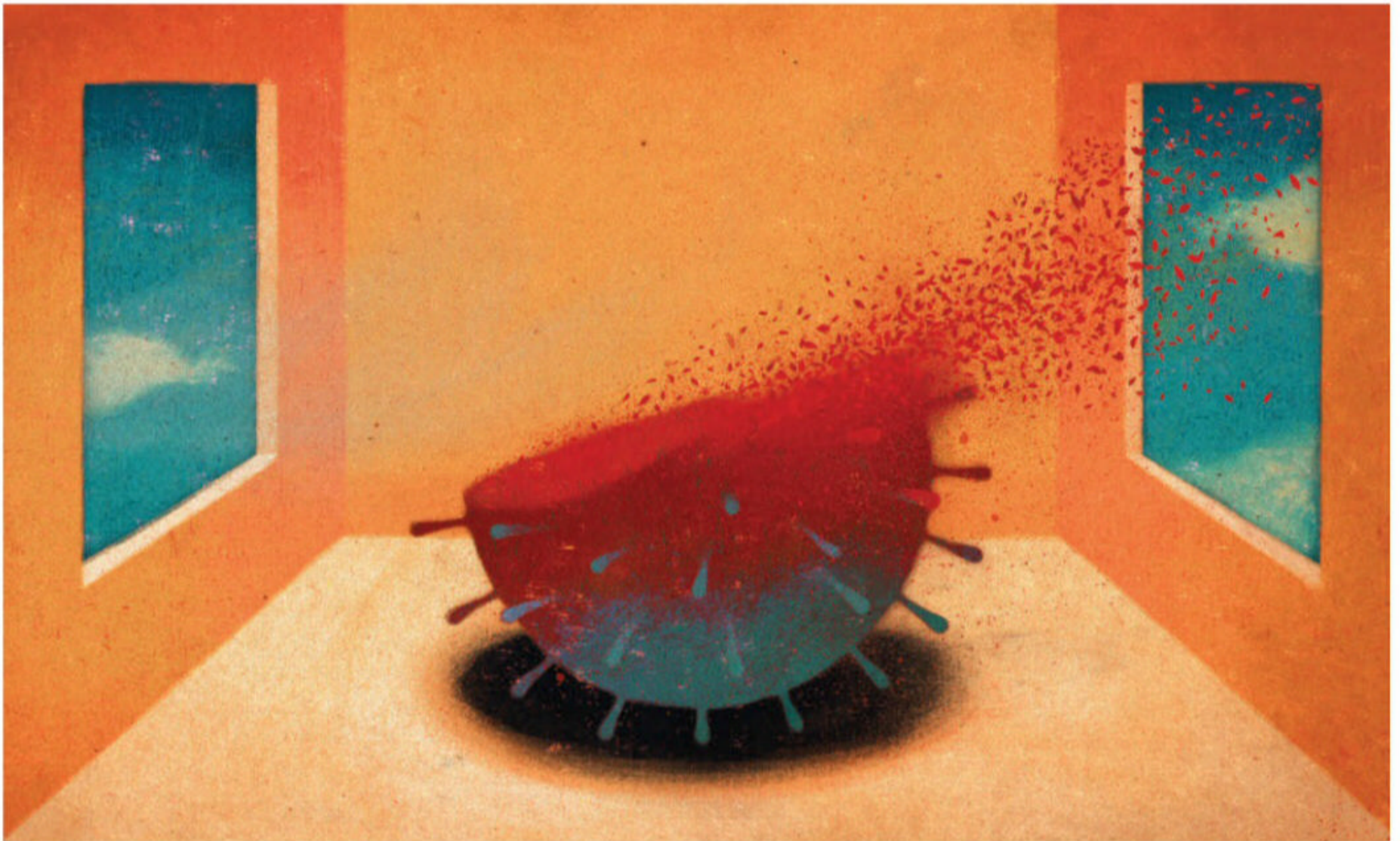
An economy that is operating beyond its capacity could perhaps create more enduring inflation problems. Here again history is instructive. Inflation had been creeping up in America well before the 1970s, rising from less than 2% in the early 1960s to nearly 6% later in the decade. That was the result of a policy error: the Fed consistently let demand exceed productive capacity. Why it did so remains the subject of debate. It may have failed to grasp that productivity growth was slowing, thereby overestimating the economy’s potential. Or it may have been reluctant to incur the social or political costs of inducing unemployment to rein in inflation. It took the grim determination of Paul Volcker, who became the Fed’s chairman in 1979, to expunge this inflationary inertia.

Some economists worry that today’s stimulus-powered growth could lead to a repeat of the errors of the past. Employment in America remains nearly 8m short of its pre-pandemic level, pointing to plenty of spare capacity. But even the Fed reckons that this might quickly be hoovered up, with unemployment falling below its long-run rate by the end of 2022. Yet though the disappearance of slack could add to inflation pressures, it may not do so by very much: shifts in unemployment seem to have had smaller effects on inflation in recent decades. In fact, research by Jonathon Hazell of Princeton University, Juan Herreño of Columbia University and Emi Nakamura and Jon Steinsson of the University of California, Berkeley, suggests that this phenomenon may not be new. They find that the relationship between unemployment and inflation has been fairly weak across American states since at least the late 1970s. The drop in inflation that occurred on Volcker’s watch owed less to high unemployment, they argue, than to a profound shift in the public’s inflation expectations.

What to expect when you’re not expecting

Expectations are the trickiest piece of the inflation equation. Measurement is one problem. A survey by the University of Michigan suggests that consumers expect average annual inflation of 3.1% over the next five years; market-based measures imply a rate of about 2.6% over the same period, before falling to about 2.2% over the subsequent five years. That is above the Fed’s 2% target but still well short of a 1970s-style rerun. Perhaps punters are less worried about price pressures. Or perhaps they trust in the Fed’s commitment to price stability. Mr Hazell and his co-authors posit that inflation expectations dropped dramatically in the early 1980s because the public perceived a “regime shift” at the Fed. A repeat of the Great Inflation, then, might require another big change to central banks’ frameworks, and time for the public to perceive it.

Is such an about-face imminent? The Fed recently amended its approach, and says it will accept periods of above-target inflation to offset past undershooting. Whether this represents a “regime shift” is another question. The Fed still promises inflation of just 2% on average. It has not dropped its commitment to keep control over prices, nor does the public believe it has. Middle-aged Americans may get a taste of modestly high inflation this year. But they are hardly returning to the economy of their parents. ■



Covid transmission

Surface to air

Improving the ventilation of buildings will help curb the spread of SARS-COV-2

ON JANUARY 24TH 2020 three families, together numbering 21 people, came independently to eat lunch at a restaurant in Guangzhou. It was the eve of the Chinese New Year. Extra seating had been squeezed in to accommodate more patrons than usual, and these families were crowded onto neighbouring tables along one wall of the windowless room (see plan on a following page). The largest of them—a party of ten who had arrived the day before from Wuhan—sat around the middle table. Later that day, one of their number developed fever and a cough and, at a hospital, was diagnosed with covid-19. Within two weeks, ten of the 21 were confirmed as being infected with SARS-COV-2.

The families involved had never met and video footage showed they had no close contact during the lunch. An initial analysis by the Guangzhou Centre for Disease Control and Prevention proposed that the infection had spread via respiratory “droplets”. But medical lore has it that such droplets—defined as particles expelled

while breathing that are more than five microns across—cannot travel more than a couple of metres after they have been exhaled. And some of those who became infected during the lunch were farther than that from the “index” patient.

It made no sense. How could a single infected person transmit the virus to nine others in just an hour when there had been no direct contact between them?

Current thinking

The outbreak at the Guangzhou restaurant was the first recorded “superspreading” event of the pandemic. Superspreading is loosely defined as being when a single person infects many others in a short space of

time. More than 2,000 cases of it have now been recorded—in places as varied as slaughterhouses, megachurches, fitness centres and nightclubs—and many scientists argue that it is the main means by which covid-19 is transmitted.

In cracking the puzzle of superspreading, researchers have had to re-evaluate their understanding of SARS-COV-2’s transmission. Most documented superspreadings have happened indoors and involved large groups gathered in poorly ventilated spaces. That points to SARS-COV-2 being a virus which travels easily through the air, in contradistinction to the early belief that short-range encounters and infected surfaces were the main risks. This, in turn, suggests that paying attention to the need for good ventilation will be important in managing the next phase of the pandemic, as people return to mixing with each other inside homes, offices, gyms, restaurants and other enclosed spaces.

It has taken a long time for public-health experts to acknowledge that covid-19 routinely spreads through the air in this way. Social distancing and mask-wearing were recommended with the intention of cutting direct, close-range transmission by virus-carrying droplets of mucus or saliva breathed out by infected individuals. The main risk of spreading the illness indirectly was thought to come not from these droplets being carried long distances by air currents, but rather by their landing on ▶▶

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nearby surfaces, on which viruses they were harbouring might survive for hours, or even days. Anyone who touched such an infected surface could then transfer those viruses, via their fingers, to their mouth, eyes or nose. This makes sense if SARS-cov-2 spreads in the same way as influenza—which was indeed the hypothesis in March 2020, when the World Health Organisation (WHO) declared the start of the covid-19 pandemic. Hence the advice to disinfect surfaces and wash hands frequently.

Doctors did know at the time that not all respiratory particles fall fast. Those smaller than five microns can become aerosols, staying aloft for hours and potentially travelling much farther than droplets, or simply accumulating in the air within a closed room. Anyone inhaling these aerosols could then become infected. But this was assumed not to matter, because aerosols were thought to be relevant only in specialist medical settings, such as when patients are attached to a ventilator in an intensive-care unit. Intubation, as this process is known, does indeed create aerosols, as the breathing tube is forced down a patient's trachea. But a wider risk was not perceived. The WHO therefore played down the risks of aerosols, issuing guidance via its Twitter and Facebook pages at the end of March 2020 that the general public need not worry. "FACT: #COVID19 is NOT airborne," it said, adding that any claims to the contrary were "misinformation".

Physics envy

Researchers outside the medical world, however—especially those who study the physics of particles in the air—felt the evidence pointed in a different direction. The Guangzhou restaurant outbreak was an early warning. Around the same time, 1,300km across the country in Ningbo, 23 of 68 passengers on a bus fitted with an air-recycling system had been infected during a one-and-a-half-hour journey. But the worst known case of superspreading early in the pandemic was American. This happened at a choir practice in Skagit Valley, Washington State, in March 2020. Of the 61 people present during a two-and-a-half-hour meeting, 53 became infected. In all these cases, investigation showed that those infected were not necessarily the people closest to the index patients, as might be expected if transmission had been by droplet or surface contact.

None of this surprised Lidia Morawska, a physicist at the Queensland University of Technology, in Brisbane, Australia. She had spent much of her career studying how pollution caused by so-called particulate matter, such as dust and smog, affects air quality. After the original SARS outbreak, which happened in 2003, she began experiments to show how respiratory particles are generated in people's throats and

then transported through the air.

She demonstrated that received medical wisdom is wrong. Because exhaled breath is a moist, hot, turbulent cloud of air, a five-micron-wide droplet released at a height of one and a half metres (about the distance above ground of the average mouth or nose) can easily be carried dozens of metres before settling. Also, the generation of respiratory particles is not restricted to medical settings. Liquid drops of all sizes—including those defined as aerosols—are continuously shed while people are breathing, talking, sneezing or singing (see chart on this page).

In July 2020 Dr Morawska wanted to bring this work to the attention of public-health agencies. She assembled a group of 36 experts on aerosols and air quality to write an open letter outlining their evidence for infection by smaller liquid drops and calling on the WHO to change its tune on airborne transmission. "We appeal to the medical community and to the relevant national and international bodies to recognise the potential for airborne spread of coronavirus disease 2019 (covid-19)," they wrote in *Clinical Infectious Diseases*. "There is significant potential for inhalation exposure to viruses in microscopic respiratory droplets (microdroplets) at short to medium distances (up to several metres, or room scale), and we are advocating for the use of preventive measures to mitigate this route of airborne transmission." More than 200 other researchers from 32 countries also signed the letter.

One signatory was Jose-Luis Jimenez, an atmospheric chemist at the University of Colorado, Boulder. He says that the confusion in health circles over whether or not airborne transmission of SARS-cov-2 is important can be traced back to medical textbooks that still contain outdated descriptions of how respiratory particles are produced and move.

But the widespread assertion, still stubbornly promulgated by the WHO, that droplets above five microns in diameter do

not stay airborne, but rather settle close to their source, is a dodgy foundation on which to build public-health advice. According to Dr Jimenez, physicists have shown that any particle less than 100 microns across can become airborne in the right circumstances. All of this matters because hand-washing and social distancing, though they remain important, are not enough to stop an airborne virus spreading, especially indoors. Masks will help, by slowing down and partially filtering an infectious person's exhalations. But to keep offices, schools, hospitals, care homes and so on safe also requires improvements in their ventilation.

Fan-tastic

Under pressure from physicists, the WHO recently acknowledged that better ventilation should be used to help prevent covid-19's spread—and in March it published a "roadmap" to that effect. But the document fell far short of properly recognising the hazard of airborne transmission and, therefore, the need to control it. Despite overwhelming evidence that it happens, the agency still maintained that SARS-cov-2 "mainly spreads between people when an infected person is in close contact with another person".

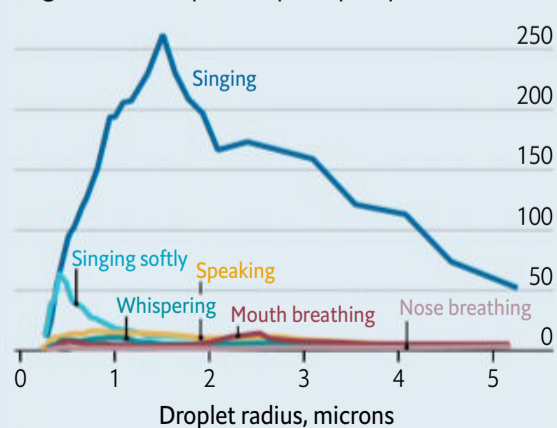
Others, though, are acting on the new knowledge. Martin Bazant, a chemical engineer, and John Bush, a mathematician, both at the Massachusetts Institute of Technology, have devised a way to calculate how long it would be safe to stay within a room that contains an infected person. The pair described their model in a paper in a recent issue of the *Proceedings of the National Academy of Sciences*.

Applied to a typical American school class of 19 pupils and a teacher, the safe time after an infected individual enters a classroom that is naturally ventilated (that is, how long before the risk of infection is unacceptably high) is 72 minutes. This period can, though, be extended in two ways. One is by mechanical ventilation of the room, which increases the safe time to 7.2 hours. The other is by everyone wearing masks. In the absence of mechanical ventilation, mask-wearing increases the safe time to eight hours. But the real benefit comes from combining these approaches. That pushes the safe time up to 80 hours—almost 14 days if a school day is six hours long. Add in intervening weekends and a class wearing masks in a school room with adequate ventilation would thereby be safe for longer than the time it takes to recover from covid-19, which is typically between one and two weeks. School transmissions would thus be rare.

A caveat is that the modelling assumed a classroom with minimal talking, physical activity or singing by the pupils. But games lessons would usually be outdoors ▶▶

A problem of aerosols

Distribution in sizes of particles emitted by a single infectious person, parts per quadrillion



Source: "A guideline to limit indoor airborne transmission of covid-19", by M.Z. Bazant and J.W.M. Bush, *PNAS*, 2021

▶ and singing lessons could be. As to too much talking, teachers might welcome an unimpeachable reason to tell pupils to keep quiet in class.

Infection risk will not always be distributed evenly around a room. Jiarong Hong, a mechanical engineer at the University of Minnesota, Minneapolis, therefore used computer models to study how aerosols would spread in a classroom, according to the location of an infected individual and the position of nearby fans or air filters. Assuming the teacher was infected, and so was releasing virus-laden aerosols at the front of the class, Dr Hong's modelling shows that placing an air cleaner or extractor fan at the front of the room sets up an airflow which prevents the movement of such aerosols towards the pupils. An even better aerosol-cleansing effect is achieved when the fans and filters are elevated above the people in the room. This takes advantage of the rising air plumes created by body heat, which mean that exhaled aerosols tend to float upwards. Dr Hong's modelling shows that even small, cheap box fans mounted in this way would do a good job of keeping classrooms safe and preventing aerosols from building up to dangerous levels.

Dr Hong has also modelled the air flow in the Guangzhou restaurant outbreak of January 2020. As the plan shows, he found that the movements of virus-laden aerosols around the three affected families of diners matched the seating positions of the people who eventually became sick. The outbreak occurred because there was no source of external fresh air and a nearby recirculating air conditioner redistributed aerosols from the infected person to the other tables, creating a contaminated bubble of air that was increasingly burdened with viruses over the course of the lunch.

The risk, then, is real. But how can the occupants of a room know whether it is well-ventilated? Just because a room feels spacious and an air conditioner is operating does not mean the air inside it is clean.

Here, Dr Morawska has a suggestion. In a (non-scientific) experiment last year, she took a carbon-dioxide meter into a large, high-ceilinged, air-conditioned restaurant near her home. CO₂ concentrations can be a useful proxy for clean air. Outdoor air contains around 400 parts per million (ppm) of the gas, and people's exhaled breath contains around 40,000ppm. Exhaling into a room therefore gradually raises its CO₂ concentration unless the ventilation is good enough to remove the excess.

According to experts on air quality, anything below 500ppm in a room means the ventilation is good. At 800ppm, 1% of the air someone is breathing has already been exhaled recently by someone else. At 4,400ppm, this rises to 10%, and would be classed as dangerous. These sorts of levels



are seen only in crowded spaces with poor airflow. To keep the risk of covid-19 low, CO₂ levels should be well below 700ppm.

When Dr Morawska conducted her experiment, the restaurant had ten people in it—far fewer than would normally be allowed—and the CO₂ concentration was already 1,000ppm when she arrived. Within an hour it had jumped to 2,000ppm. “We continued sitting during the dinner for another hour or so,” she says. “So if there was someone infected there, well this could have been a problem.”

Though anecdotal, that tale indicates a serious risk—and one which resonates beyond covid-19. All sorts of symptoms, from headaches, fatigue and shortness of breath to skin-irritation, dizziness and nausea, are linked to poor ventilation. It has also been connected with more absences from work and lower productivity.

The ventilation measures needed to deal with all this are not difficult, but existing regulations and design standards often have different objectives—particularly, these days, conserving heat and thus reducing energy consumption. That often means recirculating air, rather than exchanging it with fresh air from the outside

world. (An exception is passenger aircraft, which refresh cabin air frequently.)

In situations where it is not possible to reduce health risks by ventilation alone—for example, places like nightclubs, where there are lots of people crowded together, or gyms, where they are breathing heavily—air filtration could easily be incorporated into ventilation systems. Air could also be disinfected, using germicidal ultraviolet lamps placed within air-conditioning systems or near ceilings in rooms.

All change

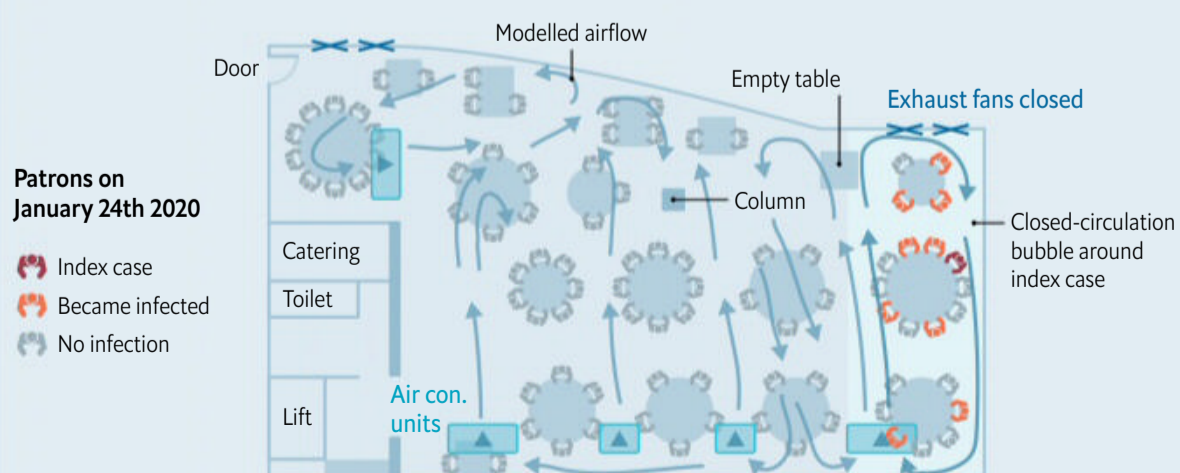
And then there is public awareness. “Before this pandemic it was completely socially acceptable to come to the office coughing, sneezing, spreading viruses around,” says Dr Morawska. “No one would say anything—even people educated to understand how infections are transmitted.”

That insouciance must be corrected, she says. The WHO must acknowledge the need to control airborne pathogens and governments must agree and enforce comprehensive standards for indoor air quality that keeps people healthy. One way to ensure compliance might be to issue ventilation certificates for buildings, similar to the food-hygiene certificates which already exist for restaurants. Occupants should also be given information about air quality routinely, she adds, through the use of monitors and sensors that can display a room's carbon-dioxide levels or other relevant measures.

For new buildings this should not cost much extra, though replacing existing ventilation systems might be costly. But not as costly as covid-19 has been. And if improvements in indoor air quality also reduced absenteeism and improved productivity, those gains might cover that cost. “Although detailed economic analyses remain to be done,” wrote Dr Morawska in a recent edition of *Science*, “the existing evidence suggests that controlling airborne infections can cost society less than it would to bear them.” ■

Spreading risk

Suspected airborne transmission of SARS-CoV-2 in a restaurant in Guangzhou, China



Source: “Probable airborne transmission of SARS-CoV-2 in a poorly ventilated restaurant”, by Y. Li et al., *Building and Environment*, 2021

Pest control

Cas-9-trated

Genetic engineering may help control disease-carrying mosquitoes

EVERY YEAR, hundreds of millions of people catch mosquito-borne diseases like malaria and dengue fever. Hundreds of thousands die. Drug treatments are imperfect. And, despite decades of effort, vaccines have, for many of these diseases, proved tricky to develop.

Better, then, to stop those infections happening in the first place, by exterminating—or at least suppressing—the mosquitoes that carry the diseases. In a paper just published in the *Proceedings of the National Academy of Sciences*, a team of researchers led by Craig Montell, of the University of California, Santa Barbara, describe how CRISPR-Cas9, a new and powerful genetic-engineering process, could help to do just that.

Dr Montell and his colleagues used CRISPR to boost an existing control method called the sterile insect technique (SIT). This involves releasing lots of sterilised males into the wild. Females that mate with these males produce no offspring. Repeated releases can reduce populations dramatically. SIT has been used in North America to eliminate screwworm flies, an agricultural pest, and to suppress several species of crop-munching fruit flies.

It has been tried on mosquitoes, too, but with less success. One reason seems to be side-effects of the procedure. To sterilise them, males are zapped with radiation or exposed to toxic chemicals. This works, but it damages them in other ways, too. The result can be sickly individuals that struggle to compete in the mating game with their wild counterparts.

Dr Montell and his colleagues hoped that CRISPR might offer an alternative. Their first step was to look for genes which, when disabled, would render male mosquitoes infertile. They began their hunt in fruit flies, a stalwart of genetic research. They focused on a gene that, when removed, made male fruit flies sterile—and which was present in a similar form in their target mosquito species, *Aedes aegypti*, which is the vector of, among other illnesses, yellow fever, dengue and Zika virus. Disabling the equivalent gene in male *Aedes* likewise left them infertile.

Crucially, the genetic tweak involved did not appear to hinder the modified mosquitoes in any other way. On every measure of healthiness they performed as well as their wild counterparts. And even though they were firing blanks, they were still able



Father of none

to mate with females in the laboratory.

Although the details are not fully understood, says Dr Montell, once female mosquitoes have mated a few times, they become less receptive to doing so again. Mating with an infertile male is therefore not only fruitless in itself, but should also leave a female less interested in unmodified males in future. Sure enough, a series of experiments conducted in cages suggested that releasing between five and six genetically modified males for each wild male was enough to cut the number of reproducing females by half. Upping that ratio to 15:1 dropped it by 80%.

There is more work to do before field trials, says Dr Montell. But having established the principle, he is excited to see where the work might lead. That the target gene is found in both fruit flies and *Aedes* suggests it is likely to exist in other disease-carrying mosquitoes, too. And that the engineered males leave no offspring means fewer worries about any unintended consequences which might arise from releasing millions of genetically modified organisms into the environment.

More speculatively, the team is pondering whether it might be possible to create males which can outplay their un-engineered cousins at the mating game, despite being infertile. Improving on millions of years of evolution would usually be hard. Even if researchers could find an alteration that improved a male's attractiveness, it would probably reduce the animal's overall fitness. Such a genetic tweak would ordinarily be winnowed out by natural selection over subsequent generations. But because each generation of males is created anew in a laboratory, says Dr Montell, there is no long run to worry about. If the team can find the right mutation, such genetically engineered *hommes fatales* could give mosquito-suppression efforts an even bigger boost. ■

Autonomous weapons

Fail deadly

The fog of war may confound weapons that think for themselves

THE SKIES of Israel have lit up in recent weeks with the sinuous trails of interceptors colliding with thick volleys of rockets fired from Gaza. These spectacular aerial duels show autonomous weapons at work. For, though each launcher of Iron Dome, Israel's missile-defence system, is manned by soldiers, only a computer can keep up with the most intense barrages. "Sometimes in large salvos, you can't have men in the loop for every rocket," says one Israeli soldier. It is largely an algorithm that decides where and when to fire.

Iron Dome is a defensive system that attacks physical objects (the incoming rockets) in an aerial battle-theatre devoid of immediate civilian bystanders, albeit that falling debris could injure or kill someone. But one day similar latitude might be given to offensive weapons which fire at human enemies on the ground, in more crowded places. A new report by the United Nations Institute for Disarmament Research (UNIDIR), a think-tank, explains why that will be far harder than knocking rockets out of the sky.

Autonomous systems rely on artificial intelligence (AI), which in turn relies on data collected from those systems' surroundings. When these data are good—plentiful, reliable and similar to the data on which the system's algorithm was trained—AI can excel. But in many circumstances data are incomplete, ambiguous or overwhelming. Consider the difference between radiology, in which algorithms outperform human beings in analysing x-ray images, and self-driving cars, which still struggle to make sense of a cacophonous stream of disparate inputs from the outside world. On the battlefield, that problem is multiplied.

"Conflict environments are harsh, dynamic and adversarial," says UNIDIR. Dust, smoke and vibration can obscure or damage the cameras, radars and other sensors that capture data in the first place. Even a speck of dust on a sensor might, in a particular light, mislead an algorithm into classifying a civilian object as a military one, says Arthur Holland Michel, the report's author. Moreover, enemies constantly attempt to fool those sensors through camouflage, concealment and trickery. Pedestrians have no reason to bamboozle self-driving cars, whereas soldiers work hard to blend into foliage. And a mixture of civilian and military objects—evident on the ▶▶

▶ ground in Gaza in recent weeks—could produce a flood of confusing data.

The biggest problem is that algorithms trained on limited data samples would encounter a much wider range of inputs in a war zone. In the same way that recognition software trained largely on white faces struggles to recognise black ones, an autonomous weapon fed with examples of Russian military uniforms will be less reliable against Chinese ones. “AI systems tend to be very brittle against anything that wasn’t covered in their development or testing,” says Mr Holland Michel. An autonomous system effective against one country might be unusable against a foe with superior camouflage, for instance.

Despite these limitations, the technology is already trickling onto the battlefield. In its war with Armenia last year, Azerbaijan unleashed Israeli-made loitering munitions theoretically capable of choosing their own targets. Ziyang, a Chinese company, boasts that its Blowfish A3, a gun-toting helicopter drone, “autonomously performs...complex combat missions” including “targeted precision strikes”. The International Committee of the Red Cross (ICRC) says that many of today’s remote-controlled weapons could be turned into autonomous ones with little more than a software upgrade or a change of doctrine.

The limits of autonomy

On May 12th the ICRC published a new and nuanced position on the matter, recommending new rules to regulate autonomous weapons, including a prohibition on those that are “unpredictable”, and also a blanket ban on any such weapon that has human beings as its targets. These things will be debated in December at the five-yearly review conference of the UN Convention on Certain Conventional Weapons, originally established in 1980 to ban landmines and other “inhumane” arms. Government experts will meet thrice over the summer and autumn, under UN auspices, to lay the groundwork. “There is momentum now towards a decision,” says Neil Davison, a scientific and policy adviser at the ICRC. Even among states who oppose new rules, he says, there is greater discussion of the limits that might need to be placed on autonomous weapons.

Yet powerful states remain wary of ceding an advantage to rivals. In March a National Security Commission on Artificial Intelligence established by America’s Congress predicted that autonomous weapons would eventually be “capable of levels of performance, speed and discrimination that exceed human capabilities”. A worldwide prohibition on their development and use would be “neither feasible nor currently in the interests of the United States,” it concluded—in part, it argued, because Russia and China would probably cheat. ■

Water supply

A better fog trap

A clever upgrade of a humble but useful technology

EVERY NIGHT, air cooled and moistened by the Humboldt current blows over Chile’s northern coast and across the Atacama desert. The billowing banks of fog thus created might look insubstantial, but there is water here to be captured—and in this, the driest place on Earth, capture it people do. Fog-harvesting will never be big business, for it needs particular conditions to operate well. But in zones like the Atacama, where moisture-laden breezes bring fog but no rain, the invention in the 1960s of traps which can pluck that moisture from the air has helped sustain settlements otherwise on the brink of drought.

Fog traps are polymer-mesh screens mounted in metal frames (see picture). As misty zephyrs blow through them, droplets of water adhere to the mesh. These absorb others until the result breaks free and runs down the screen, as a raindrop runs down a window pane, into a collector. A typical trap, with a 40-square-metre collecting area, yields about 200 litres a day. That is enough to supply around 60 people with drinking water. Such a collector costs \$1,000 or so, and will last a decade.

A simple idea, then. But even simple technology can be upgraded. And that is exactly what Urszula Stachewicz of the AGH University of Science and Technology, in Krakow, Poland, proposes to do.

Her upgrade relies on giving the mesh a slight electrical charge. Overall, the molecules in it are electrically neutral. But polymer molecules are large, and their elec-

trons can move about within them. Uneven distribution of these electrons means some parts of a molecule are positive and some negative. That fact might be exploited to give the outside of each thread in a mesh one electrical polarity (either positive or negative) while burying the other polarity in the thread’s interior. Just as static electricity will attract a balloon to a wall, a surface charge created in this way will attract water droplets from the air.

Previous attempts to do this have coated the threads with metal. But that is expensive. As they describe in *ACS Nano*, Dr Stachewicz and her student Daniel Ura have done it by changing the way the threads are spun, which is cheap.

At the moment, those threads are created by a process called melt-spinning. This involves melting the polymer and pushing the resulting liquid through a hollow needle, out of a hole in the needle’s tip and onto a spinning drum, where it cools and solidifies. Dr Stachewicz and Mr Ura propose instead to use a technique called electrospinning. This also involves a hollow needle. But instead of being melted, the polymer is dissolved in a solvent, and instead of being propelled from the needle’s tip by pressure from behind, it is attracted to the drum by the creation of an electrical potential difference between the drum and the needle. As the stream of dissolved polymer travels through the air, the solvent evaporates, leaving behind a solid thread.

One consequence of electrospinning is that the voltage attracting the thread from needle to drum also attracts or repels, according to their polarity, the charges on the molecules within. This reorients those molecules, aligning them (and thus their charges) in a way that does not happen in a melt-spun thread. That can create the sort of polarity difference between the interior and the exterior of a thread the two researchers were looking for.

Dr Stachewicz and Mr Ura experimented with different potential differences between needle and drum and eventually found one that resulted in meshes able to collect 50% more water than commercial versions, at no extra cost of production. At the moment these are just prototypes, but they expect soon to have a practical version which can be made available for sale. And that will certainly improve the lives of people who rely for their survival on drawing water not from a well, but from thin air. ■



The mellow fruitfulness of mists



Literature and memory

Secrets and lies

A Russian author explores her family's past and the meaning of history

AS A CHILD, Maria Stepanova adored a game called *sekretiki*, or “little secrets”. She would dig holes in the ground, line them with foil, fill them with special objects, cover them with glass and bury them in the dirt, to be found by friends in the know. As she grew up to become one of Russia’s most celebrated contemporary poets, writing came to play a similar role in her life. “I begin to love someone or something, information accumulates of its own accord, and I want to write about it, to put that material into a storehouse, to find its unexpected rhythms,” she explains from Moscow. “I want to make a *sekretik*.”

Ms Stepanova’s deepest love is for the past, in particular her own family’s, and her luminous book “In Memory of Memory” is a *sekretik* devoted to them. After inheriting an archive of her ancestors’ photographs, letters and ephemera, she set out to make sense of the family’s history, traipsing from Paris to Saratov on the Volga and roaming across art, literature and philosophy. Eschewing the traditional quest narrative, she blends memoir, criticism, essay,

In Memory of Memory. By Maria Stepanova. Translated by Sasha Dugdale. *New Directions*; 400 pages; \$19.95. *Fitzcarraldo Editions*; £14.99

documentary and travelogue. The book won several literary awards in Russia; on reading it, thinks Yury Saprykin, the founder of Polka, a Russian literary website, “You immediately feel that you are encountering a great work of art.” In Sasha Dugdale’s supple English translation, it is a contender for this year’s International Booker Prize, to be awarded on June 2nd.

The story of the author’s Russian-Jewish family is not the stuff of headlines.

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“Everyone else’s ancestors had taken part in history, but mine seemed to have been mere lodgers in history’s house,” Ms Stepanova writes, confessing “embarrassment” at how seemingly banal their lives were. Her relatives had bit parts in the grand narratives of the 20th century, skirting its catastrophes. And the archive raises as many questions as it answers; her attempts to fill in the lacunae leave her with only “the tongue-twister of my aunts’ names Sanya, Sonya, Soka, a lot of photographs of the nameless and the noteless, some ethereal and unattached anecdotes and the familiar faces of unfamiliar people”.

In other hands, such material might fall flat. Ms Stepanova’s learning and lyricism bring it to life. She hears stories about her great-grandmother Sarra that have “the laurel-leaf taste of legend”. She sees hills “the colour of dark copper, rising and falling as evenly as breath”, and blackened villages where new churches gleam “white as new crowns on old teeth”.

Little escapes her meditative gaze. “I wanted to create a book with many entryways and exits,” Ms Stepanova says. She muses on everything from vintage clothing to the selfie, from the French philosopher Jacques Rancière to the American artist Joseph Cornell to the Russian poet Grigory Dashevsky. In a particularly thought-provoking chapter, she brings the Russian writers Osip Mandelstam and Marina Tsvetaeva into conversation with the German author W.G. Sebald. She tests out meta-▶

phors for memory and methods for enlivening archival material, weaving excerpts of relatives' letters throughout the book. Some readers may choke on this allusive style, as if drinking from a dusty old glass. Many will find it intoxicating.

Speak, memory

The myriad references to other thinkers serve a purpose: to weave Russia back into the wider Western cultural fabric. As Ms Stepanova sees it, in the 19th and early 20th centuries Russian culture was part of a shared dialogue and exchange of ideas. Her search for traces of her great-grandmother leads her to Paris, where Sarra studied medicine in the 1910s—as Franz Kafka and Amedeo Modigliani were roaming the same city's streets.

But from the late 1930s an “invisible curtain” divided Russian culture from the West, Ms Stepanova says, and the country became an “exporter of a kind of borderline experience”. Its literature, from Alexander Solzhenitsyn to Varlam Shalamov, came to be seen primarily as “confessional or reportorial material”. By linking writers from across that curtain, she aims to refute the idea that the Russian experience is separate and unique. A passage in which she visits a museum in New York evokes this sense of connection. Coming upon an image of autumn woods, “I begin to cry, very quietly, under my breath, because it's the very same Moscow wood where I used to walk with my parents once, many thousands of miles ago, and we are now looking at each other again.” As Mr Saprykin puts it, the book “returns us to the sensation of Russia being a part of world culture”.

Struggles over memory, Ms Stepanova notes, are not exclusive to Russia. In essays elsewhere, she reflected on the appeals to past greatness that, in 2014, fuelled Russia's war with Ukraine; her observations could just as well apply to the rhetoric of Trump-era America and Brexit Britain. “The virus has somehow spread around the world,” she laments. (Her output is formidable. She is editor-in-chief of Colta.ru, an online cultural journal; a collection of her essays and verse has been published this year as “The Voice Over”; another book of poetry is out in English as “War of the Beasts and the Animals”).

When the past is prosecuted in this way, suggests Ms Stepanova, it becomes an opportunity “for settling scores, for a kind of conversation about the present that for some reason cannot happen in real time”. This seepage across time is the underlying theme of “In Memory of Memory”, says Stanislav Lvovsky, a Russian poet and critic: “It's not a story about history, but about how the past lives on in the present.”

These disparate battles over memory may be part of the same war, but in Russia they tend to rage at a higher pitch. Her

country, Ms Stepanova says, has long had competing channels for memory: an official, state-endorsed narrative, and family stories, which “like lace, have more holes than threads”. Vladimir Putin has made a glorious version of the past, in particular victory in the second world war, a pillar of his statist ideology. Last week, in a meeting with senior officials, Mr Putin declared that “all kinds of Russophobic individuals and unscrupulous politicians are trying to attack Russian history”. He promised “to ensure the continuity of historical memory in Russian society, so that decades and centuries from now, future generations will cherish the truth about the war”.

Ms Stepanova makes the dissonance between these ways of thinking clear in a poignant chapter about the siege of Leningrad. A distant relative of hers perished in battle there, writing quaint letters home until his death. She quotes Lydia Ginzburg, a critic who noted from behind the Nazi blockade how the Soviet system “dehumanised the individual to such an extent that he had learnt to sacrifice himself without even realising it”.

By contrast, Ms Stepanova imbues individual lives with meaning independent of the collective fate. For her, writing “is always a rescue operation”. Her family's relics are safely preserved in their *sekretik*. ■

Satirical fiction

The hard sell

Black Buck. By Mateo Askaripour.
*Houghton Mifflin Harcourt; 400 pages; \$26.
John Murray; £14.99*

TRUE TO HIS name, Darren Vender is a salesman. In the opening pages of “Black Buck”, Mateo Askaripour's sprightly yet savage debut novel, Darren is doling out Grasshopper Frappuccinos at a Starbucks in Manhattan. After four years he has earned the black apron of a coffee master; but as former valedictorian of his class at a prestigious high school in the Bronx, he knows that a job pulling shots doesn't amount to much. Then he upsells a new drink to Rhett, a regular customer—and is invited to work at Rhett's company. “Once you learn how to sell, to truly sell, anything is possible,” Darren says. But is it?

Mr Askaripour's satire of the tech



Tales of the city

industry—and of the intersection between capitalism and American racial politics—will appeal to fans of Paul Beatty's Booker-prizewinning novel “The Sellout” and Jordan Peele's film “Get Out”. When Darren joins Sumwun—a startup hawking online therapy to big companies that want to be seen as caring employers—he is immediately renamed Buck. “If he does his job, he'll make us each a million bucks,” explains Rhett's colleague Clyde, winkingly.

But Darren is the only black person in the team, and the nickname also suggests a dehumanising racial stereotype. Colleagues tell him that he resembles Sidney Poitier or Martin Luther King or Malcolm X. Mr Askaripour's white characters are terrifyingly comfortable in their privilege. “I knew you looked familiar,” says Clyde, “but I wasn't sure if it was in the way most black people look alike. Not in a racist way, of course.”

Every day Darren—who comes to call and think of himself as Buck—rides the subway in from Bedford-Stuyvesant in Brooklyn. Perhaps the novel maps the psychic distance between the narrator's old and new lives too bluntly, but that is the nature of raw satire such as this. In their earnestness, the self-improvement aphorisms that salt the text in bold type help to humanise Darren's striving: “Reader: No matter how much it hurts, never let short-term frustration disrupt long-term gain.” The denouement is unexpectedly shocking.

It would be wishful thinking to find Mr Askaripour's take on the world totally incredible. “I know. The turns in this story are half absurd, half jaw-dropping, and a whole heaping of crazy,” Darren says. The other half is all too real.

Urban life

Czechs and balances

Prague: Belonging in the Modern City. By Chad Bryant. *Harvard University Press*; 352 pages; \$29.95 and £23.95

SHE WAS in many ways a quintessential local. She had Czech friends, read Czech books and ate that Bohemian staple, potatoes. But Duong Nguyen Jiraskova, a student who in 2008 began blogging about life in Prague, was also untypical. Brought up in the Czech Republic by Vietnamese parents, she straddled two worlds. She celebrated Christmas—and Tet. She used cutlery, but taught friends to handle chopsticks. “Whenever someone asks me where I feel at home,” she wrote, “I never give a one-word answer.”

One-word answers do not feature in this subtle, lyrical book. Like the denizens of many other cities, Praguers have juggled identities for centuries, even if they have only recently chronicled their efforts online. Chad Bryant concentrates on five fascinating individuals, guiding readers through Czech history along the way.

He begins in the mid-19th century, when Prague was a Habsburg city and German dominated high culture. That was intolerable for Slav patriots such as Karel Zap, who saw Prague as a kind of Czech Rome; Zap advocated the use of the Czech language and highlighted the glories of Czech culture. He thought only those with a “heightened sense of religiosity and national feeling” should enter St Vitus Cathedral, final resting place of Bohemian kings.

Yet for all his zeal, Zap sometimes wrote in German—and once went by the Teuton-

ic-sounding Karl Zapp. Mr Bryant threads such ironies through his book, describing people on the fringes of Prague society who stumbled towards belonging. In the inter-war years, when the city was becoming thoroughly Czech, Egon Kisch, a German-speaking Jewish journalist, explored soup kitchens and dive bars that recalled the cosmopolitan mood of earlier decades. Hana Frejkova found peace as an actor in Czechoslovakia’s theatres after her father was condemned in a Stalinist show trial.

Vignettes evoke the city’s changing fortunes. In Kisch’s day Prague had official dogcatchers, one of them boasting an 18th-century proclamation from Empress Maria Theresa confirming his family’s hereditary profession. By the 1970s Prague was a striving socialist city, complete with tower blocks and a new metro system. When the first line opened, officials hired women workers to help Praguers navigate an unfamiliar technology—escalators.

As Mr Bryant makes clear, Prague has for centuries been a city in flux, each new ruler chiselling his politics into its institutions and infrastructure. That could make it hard for residents, marginalised or otherwise, to keep up. In his most moving chapter, Mr Bryant recounts the life of Vojtech Berger, a carpenter and communist. His views were mistrusted between the wars; but after Czechoslovakia became a communist state in 1948, Berger seems to have been lost: “One wonders if, as a young man, this is what Berger had had in mind.”

By the end of the book, readers might conclude that standing outside or against the mainstream—as a Czech nationalist or radical carpenter or Vietnamese immigrant—is what lends characters like these their strength. An upbringing that spans two communities is many things, Ms Nguyen Jiraskova has noted, but never boring. As Mr Bryant observes, cities the world over help people like his subjects find and make homes in their own image. ■

Censorship

And be damned

Dangerous Ideas. By Eric Berkowitz. *Beacon Press*; 320 pages; \$29.95. *The Westbourne Press*; £20

THIS LIVELY and wide-ranging history of censorship opens with a wise reminder. “The compulsion to silence others”, writes Eric Berkowitz, an American lawyer and author, “is as old as the urge to speak.” As a firm believer in free speech, Mr Berkowitz views censorship through the ages as mostly futile, perverse or wrong. Yet he grasps that neither side in this ancient contest is pure or simple. Nor, in his engrossing account, do either free speech or its opponents ever win final victories.

Mr Berkowitz focuses chiefly on the United States and Britain, with glances at other European countries—such as 17th- and 18th-century France, famous for *libelles*, scurrilous and usually sexual attacks on royalty, clergy and other notables. He briefly widens the field at the end for a discouraging look at enemies of free speech in less liberal or less democratic places.

Silencers of speech operate directly and indirectly. The most obvious direct kind is state censorship. It may forbid speech unless cleared in advance (pre-censorship), punish it after the event (criminal libel) or burden publishers and media with undue regulations or taxes. Speech here includes not just voicing or disseminating words but proclaiming your faith as you wish, campaigning for your chosen causes and making art without interference.

Pre-censorship has often proved self-defeating. With the coming of print, books as a rule needed licence before publication. In Britain, where licensing was outsourced to the printers’ guild, prior control proved ineffective and corrupt, and was abandoned by the end of the 17th century. The papal *Index of Forbidden Books* (1559-1966), backed by the law in many Catholic countries, gave publicity to works that would otherwise have remained obscure. The harder Soviet censors worked, the stronger grew underground papers, political jokes and public disbelief.

Criminal libel, which replaced pre-censorship in common-law countries, might be seditious, obscene or blasphemous. That threefold division tracked the silencers’ chief preoccupations: political dissent, fascination with sex and disregard for religion. Prosecutions continued even late into the 20th century. Especially before juries, they could backfire, as Mr Ber-



A view from the bridge

► kowitz recounts with relish. In 1817 William Hone was charged in Britain with blasphemy for parodying church liturgy. In defence, Hone read out passages of his parodies that so reduced the courtroom to laughter that acquittal was assured. Obscenity trials have commonly stumbled on the prosecution's dilemma as to whether to say the unsayable or primly allude to it.

Entertaining as they are, court pratfalls were the exception. Mr Berkowitz stresses that suppression had the upper hand until recently. Free speech's most eloquent modern champion, John Stuart Mill, published "On Liberty" in 1859; but in Europe and America state censorship weakened only in the 1950s-60s. Then and at other times, the law responded to public opinion. That is the second, indirect means by which speech may be silenced—or freed. Pressure may come from the majority view or (as now) from the sensitivities of ethno-religious minorities.

In America, where the First Amendment bars the government from limiting speech save on exceptional grounds, courts have tended to strike down post-1945 laws controlling "hate speech". In Europe, by contrast, such laws are common and accepted even by free-speech liberals. Thus American courts are often said to be more "absolutist" about free expression. Mr Berkowitz corrects that half-truth, noting that American courts have upheld speech bans on pacifists in wartime and communists during the cold war.

Another indirect control turns on opportunities to speak. Even if all should be free to do so, must everyone be given a platform, a newspaper, an audience? To approach the question differently, does the gatekeeping power of media and web giants distort public argument?

Governments have stepped in at times to make the giants share their megaphones and refrained from interfering at others. Recently American regulators and courts have favoured the giants. Requirements for fairness in political broadcasting were dropped in the 1980s. A law of 1996 deemed web providers not to be publishers, hence protected from civil suits over material posted. The Supreme Court ruled in 2010 that corporations enjoy free-speech protection, making limits on political spending, among other things, harder to enforce. Different social silencers, those now called no-platforming and "cancel culture", make up in stridency what they lack in formal clout (though Mr Berkowitz thinks their significance is exaggerated).

Without always diving deep or giving clear answers, "Dangerous Ideas" shows that conflicts between free speech and censorship are rarely simple or settled for long. Above all, Mr Berkowitz grasps how quarrels over free speech are often, at bottom, fights for control of the argument. ■



Persian music

Stream of consciousness

Niche streaming services help Iranian musicians find their audience

THE WORK of Mim Rasouli, a musician based near Tehran, is rich in Persian and Western influences. In "Fastalgia", one of his best-known tunes, Mr Rasouli mashes up songs by Seyyed Javad Zabihi, a *muezzin* from the time of the shah; Mohammad Reza Shajarian, one of Iran's greatest cultural treasures; Archive, an alt-rock band based in London; and Arms and Sleepers, a trip-hop group from Boston. The result is a dreamy, nostalgic track meant to evoke a time when the Ramadan fast began with Zabihi's call to prayer and the *iftar*, or fast-breaking evening meal, was accompanied by Shajarian's thundering voice.

Zabihi was murdered two years after the revolution of 1979; before he died last year Shajarian boycotted state radio to show support for pro-democracy protesters. Listeners can still stream their music on Spotify and similar services. But "Fastalgia" itself is not available. Nor is anything else by Mr Rasouli, or indeed any Iranian musicians living and working in Iran.

The reason is simple. Sanctions prevent Western companies from engaging in commercial relationships with Iranian entities or individuals. Mr Rasouli (pictured) says he would love to be on Spotify (itself not formally available in Iran), but instead puts his music online for nothing. His songs can be found on his personal website, YouTube, SoundCloud, Telegram and

Navahang, a Persian-music streaming service. "I didn't choose them," Mr Rasouli says of this last outlet. Rather, after Navahang began posting his music of its own accord, he sent it more. He receives no payment in exchange.

Based in Finland, Navahang was set up in 2015 by Siavash Danesh, a refugee, with an app built in India. With roughly 2m users, it is a small outfit that focuses on the Iranian underground scene and female artists. The service is free; registration is not required. It carries advertising, but its size, and the fact that many listeners are in unprofitable Iran, mean revenues are modest.

To survive, Navahang flips the traditional business model of streaming. "Unlike other services like Spotify where you are getting subscriptions and paying artists," says Mr Danesh, "we get money from the artists themselves." Since Iran is not a signatory to assorted copyright treaties, platforms like Navahang can use some Iranian work without paying. Many musicians, including Mr Rasouli, are delighted with the exposure. Those in the diaspora who want Navahang to promote them, for example on the homepage, pay for the privilege. Navahang also produces music for some Persian artists based outside Iran. Mr Danesh reckons 90% of its income comes from these two sources.

Navahang is a relatively new entrant on the Persian-music streaming scene. The biggest and best-known service is Radio Javan, set up in Washington, DC in 2004. Its app has been downloaded more than 5m times on Google's Play Store, many more than Navahang's. Running a service aimed at Iranians is expensive, confirms Hamed Hashemi, Radio Javan's founder. Not only are most users in Iran, but the lack of copyright protection cuts both ways. His company has a production arm, too, but it is hard to pursue claims when its music is bootlegged in Iran. Radio Javan alighted on the same strategy as Navahang. "We are a promotional company," says Mr Hashemi. "We promote music."

Think of it as targeted advertising. Persian musicians want to reach Persian-speaking listeners to secure record deals and gig bookings, in Tehran or elsewhere. The likelihood of being discovered or making much money on a mainstream service—Spotify carries over 1m artists and pays a fraction of a cent per stream—is low. For musicians in Iran, it is impossible. Paying for promotion on Navahang or Radio Javan is a way to reach the right audience.

But the benefits go wider. Iranian artists have long engaged with overseas music, as Mr Rasouli's shows. Free Persian streaming services let the curious in the rest of the world discover culture originating in Iran. "As an artist, I like my work being seen and heard," says Mr Rasouli. The rewards, he adds, are spiritual rather than material. ■

Economic data

	Gross domestic product			Consumer prices		Unemployment rate		Current-account balance		Budget balance		Interest rates		Currency units			
	% change on year ago latest	quarter*	2021†	% change on year ago latest	2021†	%		% of GDP, 2021†	% of GDP, 2021†	10-yr gov't bonds latest,%	change on year ago, bp	per \$ May 26th	% change on year ago				
United States	0.4	Q1	6.4	6.0	4.2	Apr	2.7	6.1	Apr	-2.9		-13.5	1.6	89.0	-		
China	18.3	Q1	2.4	8.5	0.9	Apr	1.6	5.1	Apr ^{‡§}	2.7		-4.7	2.9	§§	69.0	6.39	11.7
Japan	-1.9	Q1	-5.1	2.2	-0.5	Apr	0.1	2.6	Mar	3.0		-9.4	nil	-8.0	109	-1.3	
Britain	-6.1	Q1	-5.9	5.3	1.5	Apr	1.5	4.8	Feb ^{††}	-4.2		-12.1	0.9	69.0	0.71	14.1	
Canada	-3.2	Q4	9.6	5.4	3.4	Apr	2.2	8.1	Apr	-2.0		-8.9	1.4	90.0	1.21	14.1	
Euro area	-1.8	Q1	-2.5	4.1	1.6	Apr	1.4	8.1	Mar	3.1		-6.6	-0.2	23.0	0.82	11.0	
Austria	-5.7	Q4	-5.6	3.4	1.9	Apr	1.7	5.6	Mar	3.4		-7.1	nil	10.0	0.82	11.0	
Belgium	-1.0	Q1	2.4	3.9	1.2	Apr	1.5	5.8	Mar	-0.8		-7.5	0.1	3.0	0.82	11.0	
France	1.5	Q1	1.8	5.4	1.2	Apr	1.3	7.9	Mar	-1.8		-9.0	0.2	27.0	0.82	11.0	
Germany	-3.1	Q1	-7.0	3.5	2.0	Apr	1.9	4.5	Mar	6.8		-3.6	-0.2	23.0	0.82	11.0	
Greece	-5.9	Q4	11.1	2.5	-0.3	Apr	nil	15.8	Dec	-5.8		-5.9	0.9	-81.0	0.82	11.0	
Italy	-1.4	Q1	-1.6	3.4	1.1	Apr	0.7	10.1	Mar	3.0		-10.5	0.9	-64.0	0.82	11.0	
Netherlands	-2.8	Q1	-1.8	2.9	1.9	Apr	2.0	3.4	Apr	10.8		-3.4	-0.2	12.0	0.82	11.0	
Spain	-4.3	Q1	-2.1	5.6	2.2	Apr	1.3	15.3	Mar	1.3		-8.9	0.5	-14.0	0.82	11.0	
Czech Republic	-4.8	Q4	-1.2	3.7	3.1	Apr	2.2	3.4	Mar [†]	2.1		-5.5	1.7	95.0	20.8	18.2	
Denmark	-1.4	Q4	-5.9	3.0	1.5	Apr	0.7	4.5	Mar	7.4		-1.3	0.1	36.0	6.09	11.5	
Norway	-1.4	Q1	-2.5	2.6	3.0	Apr	1.6	4.6	Feb ^{††}	2.4		-1.7	1.5	96.0	8.35	18.3	
Poland	-2.7	Q4	3.6	4.1	4.3	Apr	3.2	6.3	Apr [§]	2.0		-6.9	1.9	44.0	3.68	9.5	
Russia	-1.0	Q1	na	3.2	5.5	Apr	5.3	5.2	Apr [§]	3.6		-1.7	7.3	162	73.6	-4.0	
Sweden	-0.8	Q1	4.5	3.3	2.2	Apr	1.4	9.4	Apr [§]	4.1		-2.6	0.4	45.0	8.31	15.9	
Switzerland	-1.6	Q4	1.3	2.6	0.3	Apr	0.3	3.1	Apr	7.0		-2.3	-0.2	29.0	0.90	7.8	
Turkey	5.9	Q4	na	3.9	17.1	Apr	14.5	13.1	Mar [§]	-2.0		-2.8	17.6	543	8.45	-20.5	
Australia	-1.1	Q4	13.1	3.4	1.1	Q1	2.1	5.5	Apr	1.9		-7.3	1.6	68.0	1.29	16.3	
Hong Kong	7.9	Q1	23.5	4.9	0.7	Apr	1.6	6.4	Apr ^{††}	3.6		-4.1	1.2	51.0	7.76	-0.1	
India	0.4	Q4	42.7	10.4	4.3	Apr	5.2	8.0	Apr	-1.0		-7.0	6.0	1.0	72.8	4.0	
Indonesia	-0.7	Q1	na	3.3	1.4	Apr	2.8	6.3	Q1 [§]	-0.3		-6.4	6.4	-79.0	14,328	3.0	
Malaysia	-0.5	Q1	na	4.4	4.7	Apr	2.4	4.7	Mar [§]	4.6		-6.0	3.2	25.0	4.14	5.6	
Pakistan	4.7	2021**	na	1.7	11.1	Apr	9.0	5.8	2018	-1.7		-6.9	9.7	†††	134	154	4.0
Philippines	-4.2	Q1	1.2	6.6	4.5	Apr	4.0	8.7	Q1 [§]	-1.0		-7.4	4.0	77.0	48.1	5.0	
Singapore	1.3	Q1	13.1	4.8	2.1	Apr	1.8	2.9	Q1	16.7		-4.1	1.5	79.0	1.32	7.6	
South Korea	1.7	Q1	6.6	3.2	2.3	Apr	1.5	4.0	Apr [§]	4.3		-4.7	2.1	80.0	1,117	10.5	
Taiwan	8.2	Q1	12.9	6.2	2.1	Apr	1.6	3.7	Apr	15.5		-0.5	0.5	-4.0	27.8	7.8	
Thailand	-2.6	Q1	0.7	2.9	3.4	Apr	2.2	1.5	Dec [§]	4.5		-6.6	1.6	54.0	31.4	1.7	
Argentina	-4.3	Q4	19.4	6.2	46.3	Apr [†]	46.8	11.0	Q4 [§]	1.7		-6.0	na	na	94.5	-27.8	
Brazil	-1.1	Q4	13.3	3.2	6.8	Apr	6.7	14.4	Feb ^{§††}	0.5		-7.9	9.4	235	5.31	0.9	
Chile	0.3	Q1	13.4	6.2	3.3	Apr	3.6	10.4	Mar ^{§††}	-0.2		-7.2	4.0	201	734	8.9	
Colombia	2.0	Q1	11.9	4.8	1.9	Apr	2.6	14.2	Mar [§]	-3.3		-8.9	7.3	199	3,743	-0.5	
Mexico	-3.6	Q1	3.1	5.7	6.1	Apr	4.5	4.4	Mar	2.0		-2.8	6.7	58.0	19.9	12.0	
Peru	3.8	Q1	8.3	10.5	2.4	Apr	2.6	12.6	Apr [§]	-0.3		-5.6	5.0	121	3.83	-11.0	
Egypt	2.0	Q4	na	2.9	4.1	Apr	5.7	7.4	Q1 [§]	-3.3		-8.1	na	na	15.7	1.1	
Israel	-1.2	Q1	-6.5	4.0	0.8	Apr	1.3	5.4	Apr	3.4		-8.8	1.1	41.0	3.25	8.0	
Saudi Arabia	-4.1	2020	na	2.9	5.3	Apr	2.4	7.4	Q4	2.8		-3.2	na	na	3.75	0.3	
South Africa	-4.1	Q4	6.2	2.4	4.5	Apr	3.7	32.5	Q4 [§]	1.5		-9.2	8.9	-17.0	13.8	26.0	

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

Markets

In local currency	Index May 26th	% change on:	
		one week	Dec 31st 2020
United States S&P 500	4,196.0	2.0	11.7
United States NAScomp	13,738.0	3.3	6.6
China Shanghai Comp	3,593.4	2.3	3.5
China Shenzhen Comp	2,380.6	2.3	2.2
Japan Nikkei 225	28,642.2	2.1	4.4
Japan Topix	1,920.7	1.3	6.4
Britain FTSE 100	7,026.9	1.1	8.8
Canada S&P TSX	19,745.5	1.7	13.3
Euro area EURO STOXX 50	4,031.7	2.4	13.5
France CAC 40	6,391.6	2.1	15.1
Germany DAX*	15,450.7	2.2	12.6
Italy FTSE/MIB	24,778.0	1.2	11.4
Netherlands AEX	711.2	2.5	13.9
Spain IBEX 35	9,196.9	1.4	13.9
Poland WIG	64,427.8	2.6	13.0
Russia RTS, \$ terms	1,590.6	2.4	14.6
Switzerland SMI	11,348.7	2.7	6.0
Turkey BIST	1,427.1	-2.2	-3.4
Australia All Ord.	7,331.6	2.3	7.0
Hong Kong Hang Seng	29,166.0	2.0	7.1
India BSE	51,017.5	2.2	6.8
Indonesia IDX	5,815.8	1.0	-2.7
Malaysia KLSE	1,577.8	-0.2	-3.0

	index May 26th	% change on:	
		one week	Dec 31st 2020
Pakistan KSE	46,812.3	2.5	7.0
Singapore STI	3,146.1	1.3	10.6
South Korea KOSPI	3,168.4	-0.1	10.3
Taiwan TWI	16,643.7	3.2	13.0
Thailand SET	1,568.6	0.4	8.2
Argentina MERV	56,599.0	1.1	10.5
Brazil BVSP	123,989.2	1.1	4.2
Mexico IPC	49,103.5	-0.6	11.4
Egypt EGX 30	10,369.6	-4.0	-4.4
Israel TA-125	1,773.9	2.9	13.1
Saudi Arabia Tadawul	10,471.6	1.0	20.5
South Africa JSE AS	66,108.3	0.4	11.3
World, dev'd MSCI	2,969.5	2.0	10.4
Emerging markets MSCI	1,352.0	1.8	4.7

US corporate bonds, spread over Treasuries

Basis points	Dec 31st 2020	
	latest	2020
Investment grade	119	136
High-yield	365	429

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

Commodities

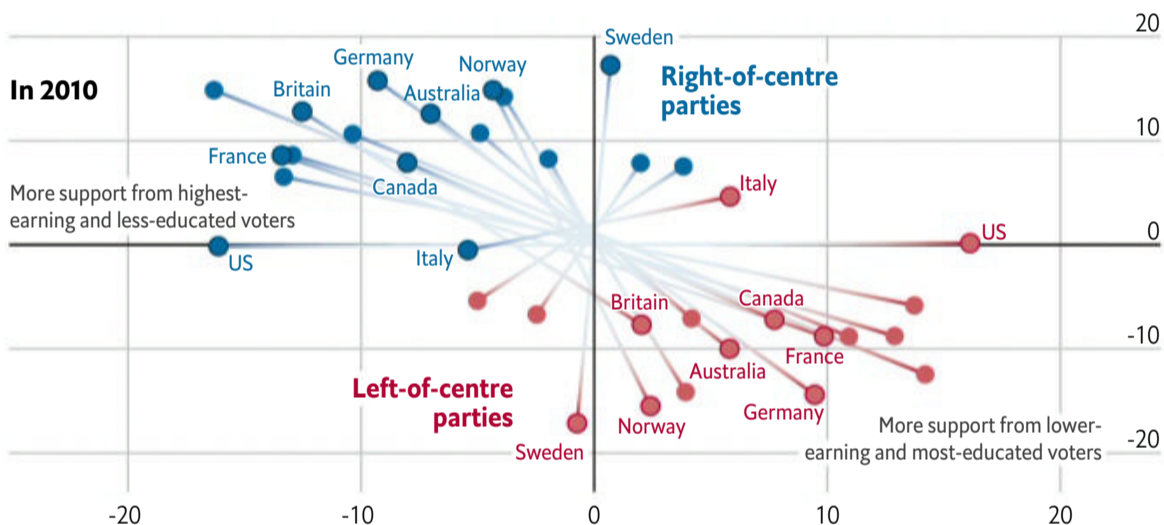
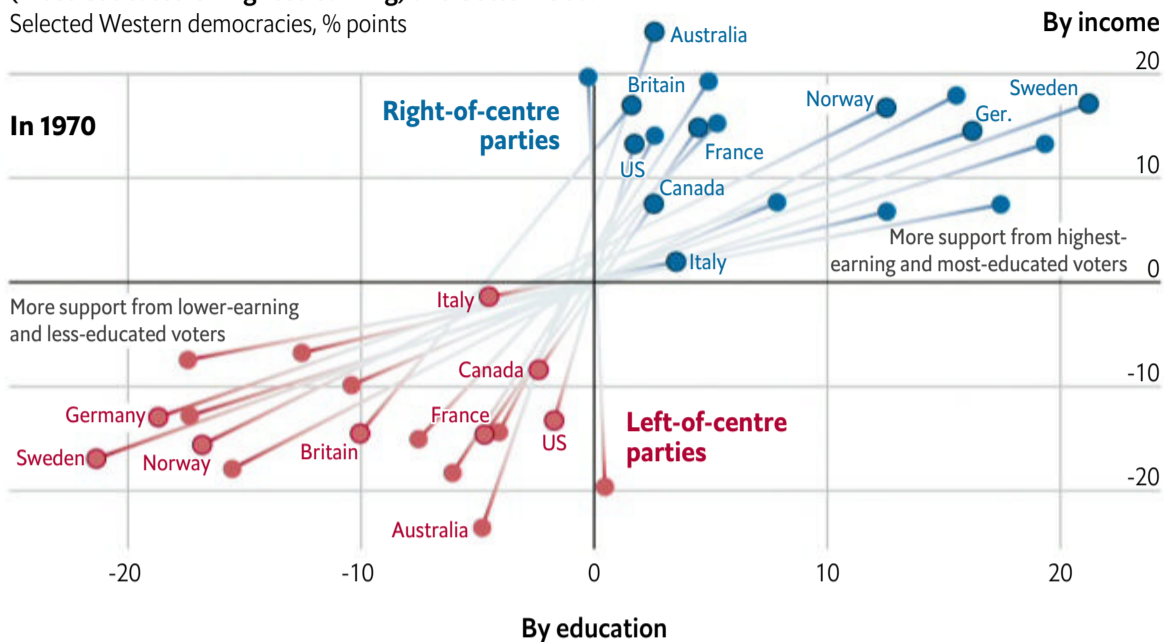
The Economist commodity-price index 2015=100	May 18th	May 25th*	% change on	
			month	year
Dollar Index				
All items	194.5	181.7	-1.8	69.9
Food	139.5	134.5	-3.9	44.1
Industrials				
All	245.8	225.7	-0.6	88.7
Non-food agriculturals	167.9	171.8	-1.2	97.5
Metals	268.9	241.7	-0.5	86.9
Sterling Index				
All items	208.9	196.2	-3.3	48.6
Euro Index				
All items	176.5	164.6	-3.1	52.4
Gold				
\$ per oz	1,868.1	1,892.0	6.3	10.7
Brent				
\$ per barrel	68.8	68.7	3.2	89.3

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

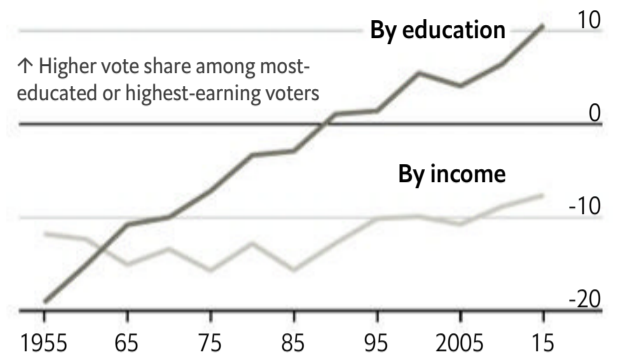
For more countries and additional data, visit [Economist.com/indicators](https://www.economist.com/indicators)

→ Educated voters have switched their political leanings from right to left. Rich ones remain conservative

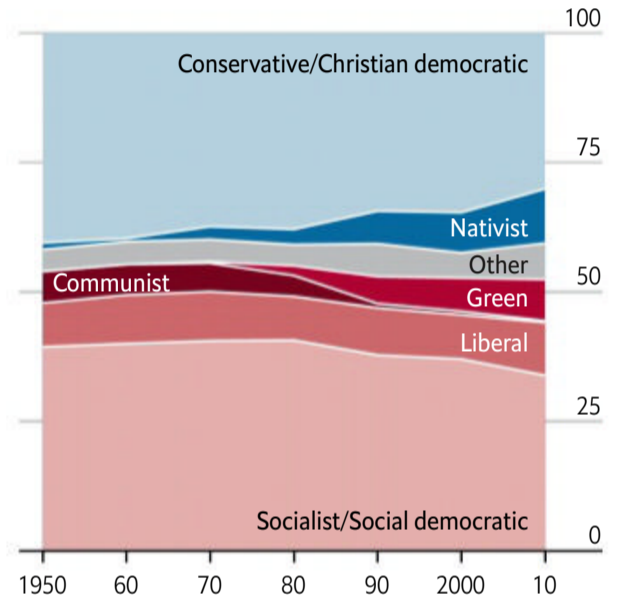
Difference in political parties' vote share between top 10% of voters (most-educated or highest-earning) and bottom 90% Selected Western democracies, % points



Difference in left-of-centre parties' vote share between top 10% and bottom 90% of voters Selected Western democracies, % points



Average vote share by political-party groupings Selected Western democracies, %



Source: "Brahmin Left versus Merchant Right", by Amory Gethin, Clara Martínez-Toledano and Thomas Piketty (working paper, 2021)

Brahmins v merchants

Educated voters' leftward shift is surprisingly old and international

YOU COULD fill a small library with books on right-wing populism. Some authors argue that these movements emerged in reaction to relatively recent events, such as the financial crisis of 2007-09 or the advent of social media. Others look to longer-lasting regional trends, like European integration or racial politics in America.

Thomas Piketty, an economist, became famous for a book that analysed 200 years of data on wealth inequality in a wide range of countries. This month he published a paper, co-written by Amory Gethin and Clara Martínez-Toledano, which applies a similar approach to the relationship between demography and ideology. Its findings imply that the electoral victories of Donald Trump and the Brexit campaign in 2016 were not an abrupt departure from precedent, but rather the consequence of a

60-year-old international trend.

In a paper in 2018 Mr Piketty noted that elites in Britain, France and America were split between intellectuals who backed left-of-centre parties—he dubbed them the "Brahmin left"—and businesspeople who preferred right-wing ones (the "merchant right"). His new work expands this study from three Western democracies to 21. It combines data on parties' policy positions with surveys that show how vote choices varied between demographic groups.

The paper finds that income and education began diverging as predictors of ideology long ago. In 1955 both the richest and the most educated voters tended to support conservative parties. Conversely, both poorer and less-educated people mostly chose labour or social-democratic ones.

Today, wealthy people still lean to the right. In contrast, the relationship between education and ideology began to reverse as early as the 1960s. Every year, the 10% of voters with the most years of schooling gravitated towards left-wing parties, while the remaining 90% slid the other way. By 2000, this had gone on for so long that, as a group, the most educated voters became more left-wing than their less-educated

peers. The gap has only grown since then.

This trend is strikingly consistent. It developed just as fast in the 20th century as in the 21st, and appears in almost every Western democracy studied. This includes both two-party systems and proportional ones, in which green parties now lure educated voters, and nativist parties attract the less educated. Such breadth and regularity make the rise of right-wing populists like Mr Trump—and of left-of-centre technocrats like Emmanuel Macron or Justin Trudeau—look like a historical inevitability.

Although the authors do not identify a cause for this trend, the simplest explanation is that it stems from growing educational attainment. In 1950 less than 10% of eligible voters in America and Europe had graduated from college. Any party relying on this group for support would have had scant hope of winning elections. In contrast, more than a third of Western adults today have degrees, which is enough to anchor a victorious coalition. And once candidates and parties began catering to educated voters—who often put living in a liberal society above lowering their tax bills—rival politicians could start winning elections by taking the opposite position. ■



To feed the world

Yuan Longping, developer of hybrid rice, died on May 22nd, aged 90

HE WAS WANDERING in a ricefield of dreams. The plants were tall as sorghum, taller than a man. Their panicles hung full as brooms, and each grain was as big as a peanut. After walking a while he lay down in the leaf-shade with a friend, quite hidden. A rest was a good idea, because the wonder-plants went on and on. In fact, they covered the world.

Then Yuan Longping woke up, laughing. The rice plants he had tended for decades at Anjiang and then Changsha in Hunan province, sowing and nurturing them, visiting daily on his motorbike to inspect them, were not quite there yet. But they still deserved their name of super rice. The leaves were straighter and taller than ordinary, and the grains plumper. They had all the vigour of the wild strain that he and his team had found, after much searching, beside a railway line in Hainan in 1970 and had cross-bred, over careful years, with the domesticated variety. Sceptics told him he was wasting his time, since rice was a self-pollinator. He believed that cross-breeding was universal and, besides, that it always made the offspring stronger.

The figures spoke for themselves. With his new hybrid rice the annual yield was 20-30% higher. This meant that at least 60m more people could be fed every year. In Yunnan province more than 17,000 kilograms had been produced per hectare. China's rice crop had risen from 57m tonnes in 1950 to 195m in 2017; from food deficiency, to food security. Higher rice-yields allowed farmers to turn more land to other uses—fruit, vegetables, fishponds—so that people not only ate more, but ate well. And this message was for the world, as well as China. Once his rice grew well, he sent seeds to the International Rice Research Institute in the Philippines. Then he travelled widely, all across Asia and to Africa and America, as well as inviting foreign students to the Hunan Hybrid Rice Research Centre in Changsha to instruct them. A fifth of all rice grown globally now comes from hybrids that were his.

For this he won the Medal of the Republic, China's highest, and the World Food Prize. An asteroid was named after him. There was talk of the Nobel, too. All that seemed just smoke to him. Though he was rich, from his shares in a seed company that used his name, he looked like a peasant, wiry as a twig, with his face leathered by sun and his big hands rough from "playing in the mud" all day. He was far happier in his short-sleeved work-shirts, out in his rice, or stripped off swimming in any wild river he could find, than in a tang suit in some conference hall. At social gatherings, he would offer round the first cigarettes and the nimblest jokes. When he lost at mahjong, no one was more delighted to pay the penalty of creeping through under the table.

Why he had become an agronomist was tricky to explain. His mother, whom he adored, did not want him to do it. He was a city boy anyway, born in Beijing, though he enjoyed the countryside and the thought of growing luscious things, like the grapes Charlie Chaplin could pick at his kitchen door in "Modern Times". As he made his way to the Anjiang agricultural school, in a charcoal-fuelled bus struggling through the mountains, he had doubts himself. What settled his vocation was famine.

In 1949, at the founding of Communist China, he had first met hunger on the roads. Between 1959 and 1961, in Mao Zedong's Great Leap Forward to collectivise farming, he saw country people falling down dying in the fields. They had been driven to eating tree-bark, fern-roots, even white clay. At the college, too, there was so little to eat that he barely had energy to dig. He dreamed of bowls of steamed fat pork, but woke to chew on rice bran. From that point his mission was to make sure people were fed.

Before the famine he had worked on grafting, because that was the Soviet model and Mao's command. Crossbreeding of plants was forbidden and genes, ludicrously, were dismissed as "metaphysical". So he grafted moonflowers on sweet potatoes, tomatoes on potatoes and a watermelon on a pumpkin (grotesque fruit, indescribable taste!), but found that any inherited traits vanished in the second generation. Secretly then he read Gregor Mendel on plant genetics, hiding him under the *People's Daily*, and after 1960 he turned his full attention to China's staple, rice.

He loved it in any case. As a boy he was enraptured by the deliciousness of *xiaozhan* rice from Tianjin, said to be the best in China. Around Anjiang, what the peasants wanted was quantity: miracle-yields from their fields. They would cross the mountains to get better seeds, so he did the same, traipsing round China to find the strong wild male-sterile plants he needed. Once he found them, in that unlikely spot in Hainan, it took three years to perfect the hybridising and another three to get his super rice into commercial production. Then, in a steep curve, yields soared away.

The Communist Party applauded him, but he never joined. He worried that, not understanding politics, he might say the wrong thing. In the Mao years at Anjiang he left indoctrination to other teachers, while he taught sports and how to sing Russian songs. The only concession he made to the Cultural Revolution was to give up his precious, then "decadent", violin. Party officials called him "Comrade", but he was no comrade of theirs, only of his agronomist colleagues and, he hoped, all hungry people. For their sake he kept on working to make rice better: salt-tolerant to grow by the coast, cross-bred with maize to be more nutritious, enriched with Vitamin A to improve people's eyes. He fizzed with the thought that if just half of the 160m hectares of ricefields in the world were planted with his hybrid rice, an increase in yield of two tonnes per hectare would feed 500m more people every year. And he still talked, impishly, of plants taller than a man.

Outside the funeral home in Changsha on the day after his death, crowds came to lay a mountain of yellow and white chrysanthemums. Several of the mourners said that whenever they sat down to a meal, or merely smelled the fragrance of rice, they would remember "Grandfather Yuan". Among the flowers were the traditional bowls of boiled rice, super-food for his journey. ■

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