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Despite a blizzard of diplomatic activity, America and Europe came no closer to ending Russia's military threat to **Ukraine**. After talks in Moscow, Emmanuel Macron said Vladimir Putin had promised not to escalate the situation, but Russia denied that. In Washington, Joe Biden said a Russian invasion would prompt the cancellation of its Nord Stream 2 gas pipeline to Germany; Olaf Scholz, Germany's new chancellor, was woollier. France, Germany, Russia and Ukraine were planning to meet in Berlin to discuss the Minsk accords on Ukraine's breakaway region of Donbas, but that deal is unpopular with Ukrainians.

Poland's finance minister resigned after a new tax package intended to benefit low earners instead cost some of them money. Poland's share of the EU's covid-19 recovery package is being held up over concerns about the rule of law.

Road rage

Jim Watson, the mayor of **Canada's** capital, Ottawa, declared a state of emergency after protests against a nationwide vaccine mandate for lorry-drivers turned violent. Justin Trudeau, the prime minister, and his family moved to a secret location. Protesters also blocked several big border crossings with America.

A bipartisan bill was introduced in the American Senate by Bob Menendez and Marco Rubio to counter the "growing meddling of Russia and China in **Latin America** and the Caribbean". The presidents of Argentina and Ecuador have

travelled to Beijing to strike economic deals with China; Argentina has now joined the Belt and Road Initiative. Britain's government rejected a statement from China that supported Argentina's claim to the Falkland islands.

In **Argentina** thousands of people protested against the provisional agreement the government has struck with the IMF. The tentative deal appears to have split the ruling Peronist coalition.

Women were allowed back into universities in **Afghanistan** for the first time since the Taliban took over the country in August. The group had long opposed education for women and girls, but has recently claimed to have changed its mind as long as classes are segregated. Many girls, however, remain barred from school.

A row over the right of women in the southern **Indian** state of Karnataka to wear the hijab to school sparked protests. The police responded with tear gas and the government declared that educational institutions in the state would be shut for three days. The protests spread to Kolkata, a big city in the east of India.

Officials from **Iran**, America and other world powers met in Vienna for a fresh round of negotiations to revive the nuclear deal they signed in 2015. Iran and America, which pulled out of the deal in 2018, are said to be moving closer to an agreement, but big differences remain.

Israel investigated reports that the police used spyware, called Pegasus, to hack the phones of local activists, officials and businessmen. NSO Group, the Israeli firm that created Pegasus, has already been admonished for selling its software to authoritarian governments around the world.

Three **Palestinian** men were killed in an Israeli operation in the occupied West Bank. Israel

said the men were from a "terrorist squad" that had carried out attacks on Israeli civilians and soldiers.

The president of **Tunisia**, Kais Saied, was criticised for scrapping the country's top judicial watchdog. Mr Saied suspended parliament last year. Critics say he is quickly becoming a strongman.

Cyclone Batsirai has killed as many as 90 people in **Madagascar** and destroyed the homes of tens of thousands more. Less than a month ago another large storm killed 55 people on the island.

An official report blamed factional battles within **South Africa's** ruling party, the African National Congress, for violent protests that claimed 354 lives last year after the jailing of Jacob Zuma, a former president accused of corruption. It warned of the danger arising from the "convergence of violent criminal conduct with mainstream politics".

ECOWAS, west Africa's regional bloc, said it will send troops to stabilise **Guinea-Bissau** after a failed coup that the government said was linked to drug-smuggling. The country is a hub for cocaine-trafficking from South America to Europe.

The end is nigh

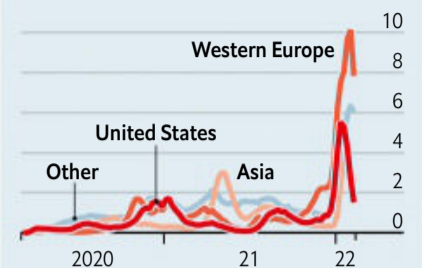
Several American states governed by Democrats announced an end to or the easing of **mask mandates**, which have been politically fraught throughout the pandemic. California is lifting the requirement for people to mask up in most places, except for the unvaccinated, who will still be obliged to wear a covering in indoor public spaces.

Boris Johnson declared that all remaining covid restrictions could end this month in **England**, including the legal requirement to isolate after a positive test. The mandate to isolate has caused severe staff shortages, not least in the National Health Service.

Coronavirus data

To 6am GMT February 10th 2022

Weekly confirmed cases by area, m



Estimated global excess deaths, m

With 95% confidence interval



Vaccine doses given per 100 people

By country-income group



Sources: Johns Hopkins University CSSE; Our World in Data; UN; World Bank; The Economist's excess-deaths model

→ For our latest coverage please visit economist.com/coronavirus

Hong Kong, meanwhile, went the other way, tightening restrictions amid a surge in covid cases. Hong Kongers may meet only one other person in public at a time.

The **Winter Olympics** got under way in Beijing, with many spectators wondering who is American and who is Chinese. Eileen Gu, born and raised in California but opting to compete for China, won gold in the big-air event. Zhu Yi, also born in America and competing for China, fell badly during the team figure-skating event, depriving China of a medal.

Peng Shuai, a Chinese women's tennis star, appeared at the Olympics to explain that there had been a "huge misunderstanding" over an online post in which she had claimed to have been forced into a sexual relationship with a former senior Chinese official. The Women's Tennis Association said it still has concerns about Ms Peng's well-being.

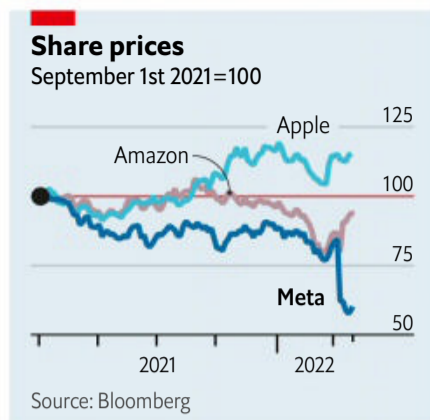
SoftBank said it would seek to list **Arm**, a British chip designer that it bought in 2016, on the stockmarket, after a proposed sale of the business to **Nvidia** collapsed. Valued at as much as \$60bn, the deal would have been the biggest ever in the semiconductor industry, but it ran into regulatory hurdles from the outset when antitrust concerns were raised in America, Britain and the EU. Companies that use Arm's chip designs, including Microsoft and Qualcomm, had argued the acquisition would give too much market power to Nvidia, which is based in California.

Toshiba, another Japanese conglomerate under pressure to increase shareholder returns, ditched a plan to split into three companies and said it now proposed spinning off just its devices business, which includes semiconductors. The original plan was criticised by foreign investors. The new restructuring will avoid a complex vote among shareholders, making it easier for management to try to win over the naysayers.

BP made an annual headline profit of \$12.8bn in 2021, its biggest in eight years. Similar to other energy giants, BP was boosted by soaring prices for oil and gas. Coming on the back of huge profits at Chevron, ExxonMobil and Shell, there are some calls in Britain and on the European continent to impose a windfall tax on energy companies.

Revenues at **TUI**, Europe's largest tourism company, were five times higher in the last three months of 2021 than in the same quarter of 2020, but still well below those of 2019. Now that many travel restrictions have eased, TUI expects bookings this summer to come close to pre-pandemic levels.

In another sign of returning confidence in travel, **Frontier**, a low-cost airline in America, agreed to buy **Spirit**, a rival. The \$6.6bn takeover is the biggest in the industry since the start of the pandemic.



Stockmarkets clawed back most of their losses from the worst trading day in a year, triggered by **Meta's** warning about slower revenue growth. The share price of Facebook's parent company tumbled by 26% on February 3rd, wiping \$230bn off its market value. But the rout in tech stocks was not evenly spread. Amazon's share price rebounded on the back of solid earnings. **Disney** also provided a fillip to investors by reporting a big rise in subscribers to its Disney+ channel, allaying fears that the streaming revolution has run out of steam.

How to ease easy money

Christine Lagarde, the president of the **European Central Bank**, tried to reassure markets that any tightening of monetary policy in the euro zone would not be rushed. Ms Lagarde triggered a sell-off in

euro bonds recently when she signalled a shift to a more hawkish position at the ECB by refusing to rule out an interest-rate rise this year. Persistently high inflation is forcing central banks to think hard about quickening the pace of rate rises. The Bank of England recently lifted its benchmark rate to 0.5% having raised it to 0.25% in December.

America's total **household debt** rose by \$1trn during 2021 to reach \$15.6trn at year's end, the biggest annual increase since 2007. Car loans were a big factor; the loosening of covid restrictions has unleashed a pent-up demand for vehicles. Credit-card balances increased in the fourth quarter by the largest amount since record's began.

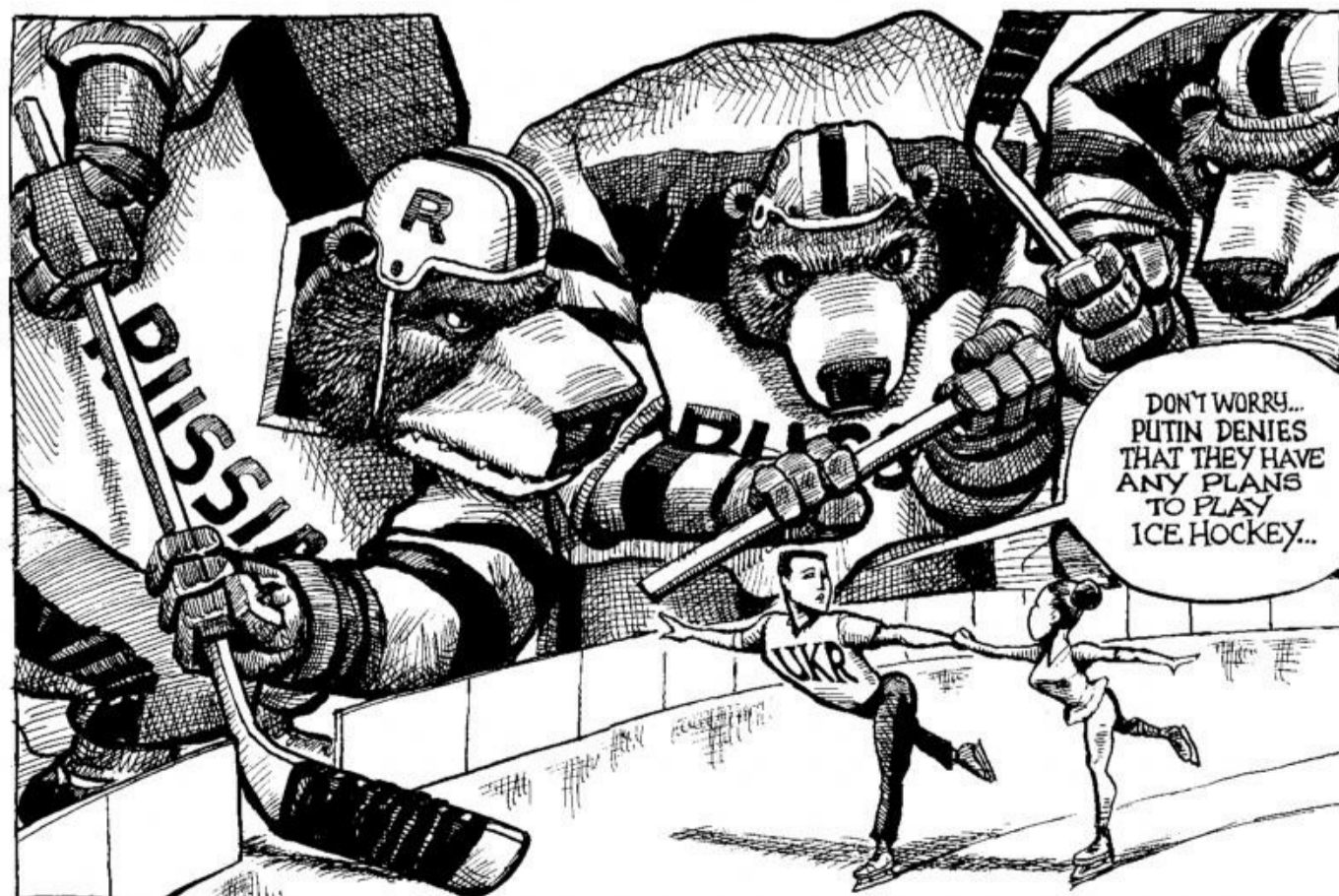
America said it would remove the extra tariffs on Japanese **steel imports** imposed during the Trump administration (the levy on aluminium still applies). In a deal similar to the one struck with the EU last year, America and Japan pledged to work together to reduce overcapacity in steel manufacturing. To avoid tariffs, steel from Japan must be made entirely in that country to avoid Chinese elements sneaking into the production.

As America's economy rebounded last year it sucked in more imports, pushing the overall **trade deficit** for goods and services to \$859.1bn, a record. The trade deficit with China grew by 14.5% over the year, to \$355.3bn.

A married couple were arrested in New York for allegedly conspiring to launder **cryptocurrency** that was stolen during a hack of Bitfinex, a virtual-currency exchange, in 2016. The Justice Department said that \$3.6bn in bitcoin related to the hack has been seized so far, proving that law enforcement "can follow money through the blockchain".

A tough business cycle

Peloton replaced its chief executive and said it would cut 2,800 jobs, after it reported another quarterly loss and lowered its sale forecast. The maker of internet-connected exercise bikes and workout programmes was one of the pandemic's big winners, as svelte office-workers tried to stay lean and mean at home. Once they returned to gyms and parks, demand for Peloton's pricey products dropped. The company's stock has pedalled back from \$163 a share in December 2020 to \$40 today.



When the ride ends

What would happen if financial markets crashed?

“FOR HISTORIANS each event is unique,” wrote Charles Kindleberger in his study of financial crises. But whereas “history is particular; economics is general”—it involves searching for patterns which indicate if a cycle is turning. Today America’s financial system looks nothing like it did before the crashes of 2001 and 2008, yet lately there have been some familiar signs of froth and fear on Wall Street: wild trading days on no real news, sudden price swings and a queasy feeling among many investors that they have overdosed on techno-optimism. Having soared in 2021, shares on Wall Street had their worst January since 2009, falling by 5.3%. The prices of assets favoured by retail investors, like tech stocks, cryptocurrencies and shares in electric-car makers, have plunged. The once-giddy mood on r/wallstreetbets, a forum for digital day-traders, is now mournful.

It is tempting to think that the January sell-off was exactly what was needed, purging the stockmarket of its speculative excesses. But America’s new-look financial system is still loaded with risks (see Finance & economics section). Asset prices are high: the last time shares were so pricey relative to long-run profits was before the slumps of 1929 and 2001, and the extra return for owning risky bonds is near its lowest level for a quarter of a century. Many portfolios have loaded up on “long-duration” assets that yield profits only in the distant future. And central banks are raising interest rates to tame inflation. America’s Federal Reserve is expected to make five quarter-point increases this year. German two-year Bund yields leapt 0.33 points last week, their biggest jump since 2008.

The mix of sky-high valuations and rising interest rates could easily result in large losses, as the rate used to discount future income rises. If big losses do materialise, the important question, for investors, for central bankers and for the world economy, is whether the financial system will safely absorb them or amplify them. The answer is not obvious, for that system has been transformed over the past 15 years by the twin forces of regulation and technological innovation.

New capital rules have pushed a lot of risk-taking out of banks. Digitisation has given computers more decision-making power, created new platforms for owning assets and cut the cost of trading almost to zero. The result is a high-frequency, market-based system with a new cast of players. Share-trading is no longer dominated by pension funds but by automated exchange-traded funds (ETFs) and swarms of retail investors using slick new apps. Borrowers can tap debt funds as well as banks. Credit flows across borders thanks to asset managers such as BlackRock, which buy foreign bonds, not just global lenders such as Citigroup. Markets operate at breakneck speed: the volume of shares traded in America is 3.8 times what it was a decade ago.

Many of these changes have been for the better. They have made it cheaper and easier for all types of investors to deal in a broader range of assets. The crash of 2008-09 showed how dangerous it was to have banks that took deposits from the public exposed to catastrophic losses, which forced governments to bail them out. Today banks are less central to the financial sys-

tem, better capitalised and hold fewer highly risky assets. More risk-taking is done by funds backed by shareholders or long-term savers who, on paper, are better equipped to absorb losses.

Yet the reinvention of finance has not eliminated hubris. Two dangers stand out. First, some leverage is hidden in shadow banks and investment funds. For example the total borrowings and deposit-like liabilities of hedge funds, property trusts and money market funds have risen to 43% of GDP, from 32% a decade ago. Firms can rack up huge debts without anyone noticing. Archegos, an obscure family investment office, defaulted last year, imposing \$10bn of losses on its lenders. If asset prices fall, other blow-ups could follow, accelerating the correction.

The second danger is that, although the new system is more decentralised, it still relies on transactions being channelled through a few nodes that could be overwhelmed by volatility. ETFs, with \$10trn of assets, rely on a few small market-making firms to ensure that the price of funds accurately tracks the underlying assets they own. Trillions of dollars of derivatives contracts are routed through five American clearing houses. Many transactions are executed by a new breed of middlemen, such as Citadel Securities. The Treasury market now depends on automated high-frequency trading firms to function.

All these firms or institutions hold safety buffers and most can demand further collateral or “margin” to protect themselves from their users’ losses. Yet recent experience suggests reasons for concern. In January 2021 frenzied trading in a single stock, GameStop, led to chaos, prompting large margin calls from the settlement system, which a new generation of app-based brokerage firms, including Robinhood, struggled to pay. The Treasury and money markets, meanwhile,

seized up in 2014, 2019 and 2020. The market-based financial system is hyperactive most of the time; in times of stress whole areas of trading activity can dry up. That can fuel panic.

Ordinary citizens may not think it matters much if a bunch of day-traders and fund managers get burned. But such a fire could damage the rest of the economy. Fully 53% of American households own shares (up from 37% in 1992), and there are over 100m online brokerage accounts. If credit markets gum up, households and firms will struggle to borrow. That is why, at the start of the pandemic, the Fed acted as a “market-maker of last resort”, promising up to \$3trn to support a range of debt markets and to backstop dealers and some mutual funds.

Fine margins

Was that bail-out a one-off caused by an exceptional event, or a sign of things to come? Ever since 2008-09 central banks and regulators have had two unspoken goals: to normalise interest rates and to stop using public money to underwrite private risk-taking. It seems that those goals are in tension: the Fed must raise rates, yet that could trigger instability. The financial system is in better shape than in 2008 when the reckless gamblers at Bear Stearns and Lehman Brothers brought the world to a standstill. Make no mistake, though: it faces a stern test. ■



The Ukraine crisis

Minsky moment

Shuttle diplomacy has created an opening for detente, but beware a trap

NOTHING CONCENTRATES minds like 130,000 troops poised to invade. For years relations between Russia and the West have languished, but the Russian forces converging on Ukraine have caused a spasm of diplomacy. On February 7th and 8th Emmanuel Macron, France's president, went to Moscow and Kyiv with plans to prevent war. He was to be followed east by the British ministers of foreign affairs and defence. Next week will be the turn of Olaf Scholz, Germany's chancellor.

All face two sets of Russian demands. One is to recast Europe's security architecture by constraining NATO in the east. The other is to lock Ukraine in Russia's orbit. Of the two, Ukraine is more urgent and perilous. The danger is that in seeking to avoid an invasion, the West lumbars Ukraine with a deal that leads to internal chaos, or even civil strife.

The fulcrum is Donbas, where Russian-backed separatists have been at war with the rest of Ukraine since 2014. The Minsk II agreement, signed in 2015, including by a Ukrainian negotiator, was supposed to stop the fighting, but much of it has never been implemented. Russia's president, Vladimir Putin, wants the West to force the Ukrainian government to comply. Mr Macron and Mr Scholz, backed by the Biden administration, see Minsk as an opportunity.

The Ukrainians sense a trap, and they are right to be worried (see International section). Minsk is not a treaty so much as a sketch scrawled on the back of an envelope. In fewer than 900 words in its English version, it deals mostly with the ceasefire, dodging hard questions about what comes later. It declares that the renegade regions have a "special" status, without defining what that is. It says there will be elections, but not who can stand or vote. Unspecified "representatives" will help write a new constitution. Which side must do what and when?

Vagueness suited Mr Putin, who all along saw Minsk as a tool to manipulate Ukraine. The special status is sometimes taken to

mean that the Donbas region should have a veto over foreign policy, including membership of NATO. Mr Putin has backed elections there that excluded most of those sympathetic to the government in Kyiv. He has issued hundreds of thousands of Russian passports and controls perhaps 40,000 local troops, whose leaders he wants to help write the new constitution. His version of Minsk is a Trojan horse that would either put Ukraine under Russian control or foment chaos.

For all those reasons many Ukrainians see Minsk as utterly unacceptable. Yet its very vagueness creates a diplomatic opening, which Volodymyr Zelensky, Ukraine's beleaguered president, could exploit in order to take back the initiative. Mr Putin's is just one of many possible interpretations of Minsk. Talks involving France, Germany, Ukraine and Russia

could put flesh on the agreement so as to limit the special status of Donbas, ensure fairer voting and make sure that delegates from Donbas to a constitutional convention are properly elected, not simply appointed by the Kremlin. After the agreement, Western powers could support Ukraine politically, economically and diplomatically.

Would Mr Putin agree to that? Perhaps not. In any case the West should not force a deal on Ukraine. That would abrogate Ukrainian sovereignty and destabilise the whole country, with unpredictable consequences that could spill back into the European Union.

Mr Putin must weigh the odds, too. Talks over Ukraine, followed by more talks with NATO on, say, arms control, could ease tensions and give him some of what he wants. He could tell Russians he is a statesman who has avoided being goaded into war by the West. By contrast, refusing to talk would leave him no tool except an unpredictable, long and (for Russia) possibly ruinous war. Mr Putin has kept people guessing as to what he really wants. Talks over Minsk are the best and safest way to find out. ■



Green investing

A dirty secret

Polluting assets are heading into the financial shadows

SINCE 2016 the value of investments in financial products that claim to abide by environmental, social and governance (ESG) rules has grown from \$23trn to \$35trn. Bloomberg Intelligence, a research firm, reckons it could exceed \$50trn by 2025. ESG funds typically tell their customers that, among other things, they do their bit to tackle climate change when they invest in publicly listed companies. Most individual investors take these claims seriously and buy these funds in good faith.

Such faith is not always well-placed. A lack of rigorous measurement means that greenwashing is rife and bogus claims go uncontested. Many funds claim that there is no trade-off be-

tween maximising profits and green investing, which seems unlikely for as long as the externalities created by polluting firms are legal and untaxed. And ESG funds often seek to meet their goals simply by excluding the shares of firms in polluting industries from their portfolios, and piling instead into pricey tech stocks, from Alphabet to Zoom.

As we report this week, the rise of ESG investing and the stigma faced by publicly listed energy firms is having an unintended side-effect (see Finance & economics section). The Western world's dirty assets are heading into the shadows. Public firms, including European oil majors such as Shell, and large listed

▶ mining outfits, are selling their most polluting assets in order to please ESG investors and meet their carbon-reduction targets. But those oil wells and coal mines are not being shut down.

Instead they are being bought by private companies and funds that have alternative sources of capital and stay out of the limelight. Little wonder: owning dirty assets may require a thick skin, but it is likely to be profitable. Private-equity firms have snapped up \$60bn-worth of fossil-fuel-linked assets in the past two years alone, from shale fields to pipelines. Their appetite may grow as turmoil around Ukraine sends oil prices back up over \$90 a barrel.

This retreat to private ownership is part of a broader global trend. More opaque institutions are taking over dirty assets. State-owned oil giants such as Saudi Aramco do not have to worry overmuch what ethical investors think. Nor do the government-run firms and banks that own or finance a vast archipelago of coal-power projects across Asia.

The shift to the shadows is problematic for two main reasons. First, the claims being made by listed firms (and ESG funds) that they are helping to decarbonise the planet are questionable. Selling a polluting asset does not, in itself, reduce emissions at all, if it keeps pumping oil or digging up coal. Second, as dirty assets pass into private hands, it becomes harder to tell if their owners plan to reduce their output over time, or expand it. All that has been created is a system of arbitrage, in which dirty assets change hands to misplaced applause.

What to do? First, impose more carbon taxes or carbon prices. Such tools are the best ways to align the profit motive with the imperative to cut emissions, and so unleash the power of mar-



kets to reallocate capital quickly and efficiently. And they can apply across the whole economy, not just to particular industries or forms of legal ownership. Long dismissed as politically impractical, they are gradually being introduced, at least in places. Almost half of all energy-related carbon emissions in G20 economies are covered by a carbon price, up from 37% in 2018, according to the OECD, a club of mostly rich countries. Still, coverage needs to expand further, and the price of carbon needs to be higher, to curb emissions more effectively.

The other answer lies with institutional investors, such as pension funds, endowments and insurers. Some are the proud beneficiaries of virtuous ESG funds whose portfolio companies are dumping dirty assets, and simultaneously the partners of private-equity funds that are eagerly buying them. If institutional investors are serious about being green, they should consider the entire carbon footprint of their portfolios. The task of measuring these footprints, and avoiding double-counting, is onerous but crucial.

Finally, investors should question the idea that the best way to make polluters pollute less is to dump their shares. Such dumping is supposed to raise the cost of capital for polluters, and thereby impede new investment by them. But this does not work if there is an abundance of alternative private cash willing to buy up those shares—which there is. Larry Fink, the boss of BlackRock, the world's largest asset manager, has suggested a different approach. Sincere green investors—and there are plenty of them—should hold on to dirty shares and work with managers to reduce emissions. He is right. To be truly green, investment strategies must be less black and white. ■

Democracy in India

Festive but fraying

It is not only sectarianism that is eating away at Indian politics

THE PHRASE “state election” does not do it justice. Over 150m people have registered to take part. They will throng to 174,351 polling stations in the course of seven rounds of voting spread over a month. There will be thousands of candidates and hundreds of parties. There are even 39,598 voters aged 100 or more, for whom special provision will be made. And all this is just in the biggest state—Uttar Pradesh—of the five that are holding elections in India in the coming weeks (see Briefing).

There will be lots of talk of a “festival of democracy”—and so it will be. Every caste, every sect, every view will be catered for. The candidates include film stars, holy men, feminists and entrepreneurs. Three different sorts of communists are competing: Marxist, Marxist-Leninist and the garden variety. And although the Bharatiya Janata Party (BJP), which runs both the national government and those of many states, is favoured to win in Uttar Pradesh and elsewhere, its victory is by no means guaranteed. Uttar Pradesh may be as poor as Mali, and deeply divided by caste and religion, but it is also a genuine democracy. Its voters have a meaningful choice, and often confound the pundits.

Just because Indian democracy is full of life, however, does not mean that it is healthy. Its most commonly lamented ailment is growing sectarianism, stoked by the Hindu nationalists

of the BJP. In Uttar Pradesh the party chose as chief minister Yogi Adityanath, a Hindu cleric who casts politics as a struggle to overturn the legacy of 1,000 years of Muslim invasions and return power and pride to the Hindu majority. Such talk leads to frequent discrimination and violence against Muslims and could one day fuel a conflagration.

But Hindu chauvinism is far from India's only political malaise, and the BJP is not the only party tainted by it. In fact, the BJP's anti-Muslim rhetoric has been such a hit with voters that other parties, too, have become ever less willing to speak up for minorities. Few are fielding many Muslim candidates in Uttar Pradesh, for example, although 19% of the voters are Muslim.

Other vices are shared by all the big parties. Take another worrying aspect of the selection of candidates: many of them are criminals. A shocking 43% of those who won seats in the national parliament at the most recent general election, in 2019, had been charged with crimes of some sort. For 29% the charges involved grave offences such as rape or murder (see Asia section).

Perhaps unsurprisingly, when these lawmakers arrive in office, they do not devote themselves diligently to the minutiae of drafting laws. Uttar Pradesh's legislature used to meet for about three months a year back in the 1950s. Last year it managed only ▶▶

▶ 17 days. The assembly in another state holding elections this month, Punjab, clocked up only 11 days in 2021. It is run by the Congress party, the main nationwide opposition to the BJP. Despite the infrequency of sessions in all these assemblies, attendance is low. And the process of legislating is becoming ever more perfunctory. Fewer and fewer bills are debated in committee; many are approved by voice votes.

Campaign finance is another worry. The BJP has introduced what it calls electoral bonds, which allow individuals and businesses to donate unlimited sums to political parties in secret, in effect. The BJP hoovers up three-quarters of the money donated in this way, but other parties are also happy to accept the scraps. It is impossible to allay suspicions that India's industrialists are buying favours from the government, since no one knows who is making donations, much less whether there might be any quid pro quo involved.

These mechanical failings are not as glaring as the rise of Hindu nationalism, but they could be highly damaging, since all parties suffer from them. Even if voters in Uttar Pradesh spurn the divisive rhetoric and discriminatory policies of the BJP, as they should, the steady corrosion of the internal workings of democracy means that they are unlikely to secure a thoughtful, effective and responsive government.

Naturally, that matters very much for ordinary Indians. It also matters for the world. India is the planet's most populous democracy. By upholding political freedoms for 75 years, bar a two-year hiatus under Congress in the 1970s, it has set a heartening precedent for the developing world. But these days it is looking less and less like a model. In a world where authoritarian China seems to grow stronger by the day, it has never been more important for India not just to hold elections, but to repair the underpinnings of its democracy, too. ■

Radical research

Healthy curiosity

How to make Britain's new innovation agency work

WHEN THE Soviet Union launched Sputnik, the first ever satellite, in 1957, Americans were blindsided. They could scarcely believe that they had been beaten into space. "Now, somehow, in some new way, the sky seemed almost alien," said Lyndon Johnson, then the majority leader of the Senate, describing what he called "the profound shock of realising that it might be possible for another nation to achieve technological superiority over this great country of ours".

America's leaders did not want to be beaten again. In 1958 President Dwight Eisenhower approved the creation of a new institution—the Advanced Research Projects Agency (ARPA). Its task would be to scan the technological horizon and "invent the future". Six decades later ARPA's modern incarnation, DARPA (the D stands for defence) has proved itself so useful—with decisive roles in creating everything from the internet to mRNA covid-19 vaccines—that many medium-sized countries want their own versions.

One of those countries is Britain, which this month announced that its new body—the Advanced Research and Invention Agency (ARIA)—would be led by Peter Highnam, a computer scientist poached, promisingly, from DARPA itself. ARIA's stated purpose is to fund high-risk, high-reward research and it will start with a budget of \$1.1bn over four years. This new addition to Britain's research-funding landscape is welcome—two years after the country left the European Union, it is still unclear whether British scientists will continue to receive any support from the EU's \$108bn Horizon Europe programme.

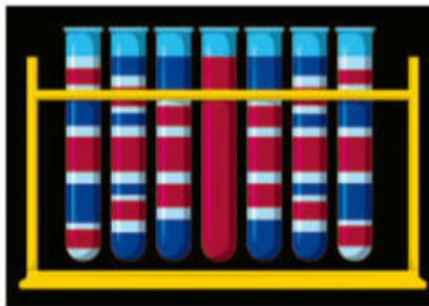
Yet Mr Highnam will face challenges in bringing the DARPA model to a country that has never seen anything like it. Copying his previous employer wholesale is unlikely to succeed—DARPA's scope and scale (it currently has a budget of \$3.5bn per year) far outweigh anything possible in Britain. Instead of trying to replicate DARPA, he should focus on bringing two elements of its model across the Atlantic.

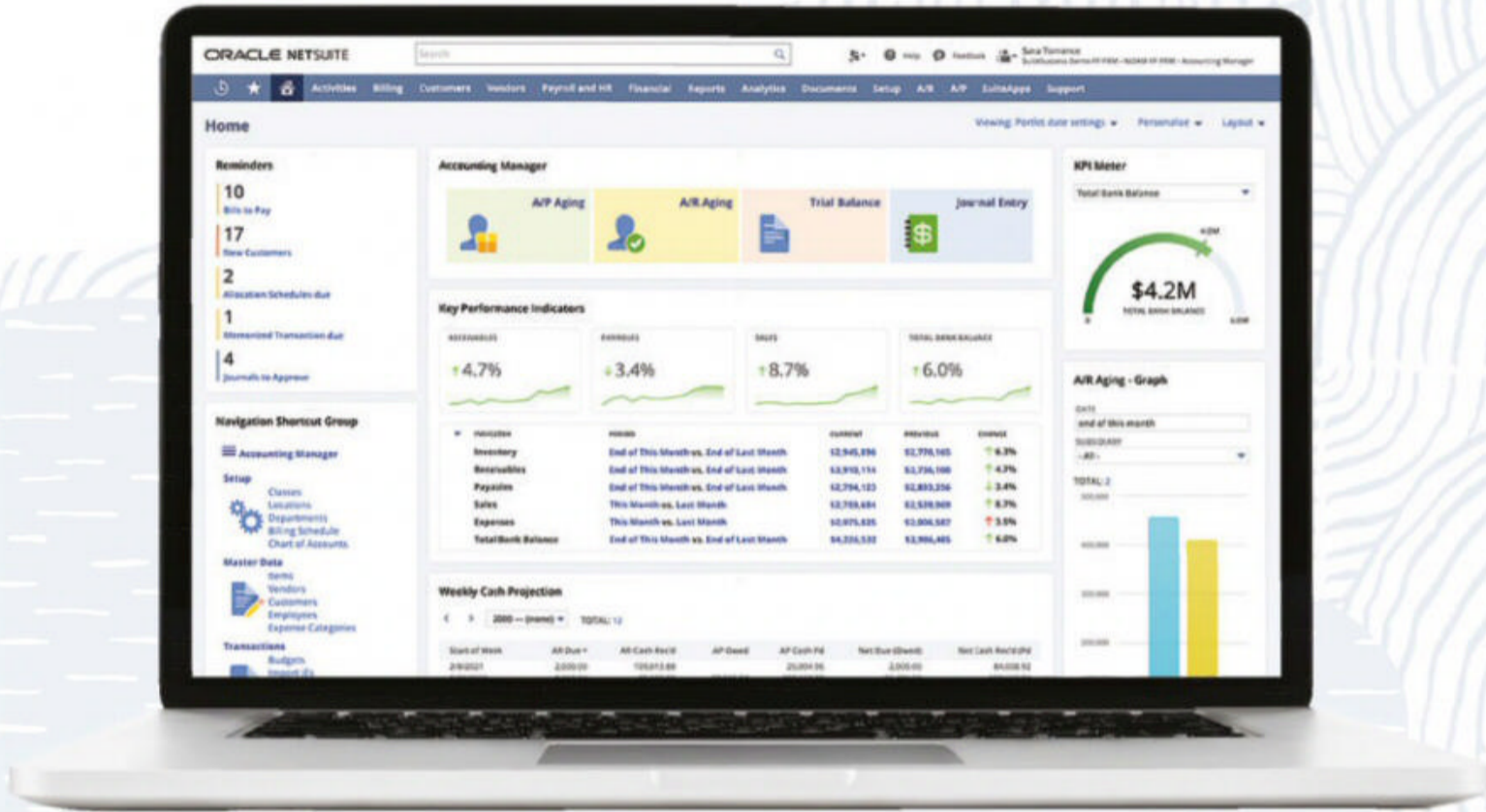
The first is independence. Government interference has hob-

bled other experimental research bodies, such as Germany's version of DARPA. British ministers have promised the new agency will be free from political interference and the bureaucracy associated with the country's usual research agencies. But the civil service, science establishment and press may not react kindly to a hands-off agency that is given big chunks of money and resists scrutiny. Mr Highnam should go on a charm offensive to explain what ARIA is. That includes the tough task of preparing Britain for failures. Lots of them. DARPA has succeeded over the decades in part because many of its gambles have not paid off. That is a sign that it is investigating truly radical ideas, rather than confining itself to the sorts of safe scientific bets best left to industry or more conventional research institutions.

The second element is to have a centre of gravity. DARPA's early successes came from its relationship with America's Department of Defence, which was trying to win a decades-long cold war. It gave a strategic direction to research and acted as a deep-pocketed customer. As a middling power, Britain does not have a defence budget that remotely matches that of Uncle Sam. Instead ARIA should focus on another area, where the country has critical mass: life sciences.

Britain is world-class in this domain—as demonstrated in both its academic citations and its scientific response to covid-19. British life-sciences firms raised \$3.4bn of venture capital in 2021; more than anywhere else in Europe but far less than the American biotech hubs, Massachusetts (\$11.5bn) and San Francisco (\$4.9bn). There is ample room, therefore, for stimulation and investment that would direct existing British academic and industrial strengths into tackling long-term health concerns. And with Britain's National Health Service, ARIA has a giant customer with a burning need for technological breakthroughs and the resources to buy them. By identifying the challenges that people and health systems are likely to face in the next few decades, ARIA could show that medium-sized countries can be at science's cutting edge. ■





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Ukraine's gas pipelines

"Putin's energy weapon" (January 29th) contained a map showing Europe's gas-pipeline network. The figure you gave of 40bn cubic metres per annum (bcm/a) for the volume of gas transited from Russia via Ukraine is most certainly not a "theoretical capacity" of our extensive pipeline network. The Ukrainian system is designed to accommodate as much as 146 bcm/a of international transit. The image paints a picture in which Nord Stream 2 seems necessary; that is not so.

In 2021 Gazprom, Russia's state gas company, exported 175 bcm/a to Europe through five major gas corridors. It is obvious, when the Ukrainian transit system is properly reflected, that the existing east-west pipeline network is fully capable of handling the gas flow. If Germany were to double its imports of Russian gas in 2022, the existing east-west transit system could easily handle it and have spare capacity left. In fact, Germany can triple its imports of Russian gas and the need for Nord Stream 2 still will not arise.

It is also readily apparent that the current gas crunch is not a question of transit capacities. The International Energy Agency has correctly concluded that Russia is orchestrating Europe's gas crisis. We have no doubts that if Nord Stream 2 becomes operational, gas flows via Ukraine will be terminated and Gazprom will control all incoming gas pipelines into Europe. It is still not too late for Germany and for Europe to reject Nord Stream 2 and decisively defend our shared energy security.

SERGIY MAKOGON

Chief executive
Gas Transmission System
Operator of Ukraine
Kyiv

Behind-the-scenes diplomacy

Bello stated that Soviet missiles were removed from Cuba in 1962 in return for an American promise not to invade the island (January 29th). Many

academics consider America's placement of missiles in Turkey as the trigger for the Soviet deployment in Cuba. Soon after the crisis America quietly removed its Turkish weapons. America didn't have to advertise its concession and the Soviets got something they seriously wanted. With Ukraine in mind, diplomacy works on many levels.

BRUCE BABCOCK

Guildford, Surrey

If I knew then...

Your special report on the state's new interventionism revealed governments' widespread enthusiasm for taxes and regulation (January 15th). You warned that politicians lack experience of the private sector and should not mess with the classic liberal principles rediscovered in the 1980s. That reminded me of a stunning admission by George McGovern, the Democrats' presidential candidate in 1972, who steered the party well to the left. After earning a small fortune in post-retirement speeches, McGovern bought an inn in Connecticut. In 1990 it went bankrupt and closed the following year. In a column written for the *Wall Street Journal* in 1992, the Democratic lion blamed the failure on suffocating red tape. He described these myriad regulations as being worthy in their intention, but admitted:

"I...wish that during the years I was in public office I had had this first-hand experience about the difficulties businesspeople face every day. That knowledge would have made me a better US senator and a more understanding presidential contender."

Blanket rules on business ignore the reality of the marketplace. After the pandemic, let's hope government officials rediscover their pro-market memory, and that the guiding principles of liberal capitalism re-emerge.

FRANCOIS MELESE

Professor of economics
Naval Postgraduate School
Monterey, California

Mental-health responders

It is not "all but impossible" to determine which 911 calls can replace police with trained mental-health responders ("Refunding the police", January 15th). We have helped jurisdictions across America analyse hundreds of thousands of emergency calls, review call codes with law enforcement, identify situations that are less likely to result in arrest, rewrite call scripts to ask callers which emergency resources they need, and co-ordinate with clinicians who are embedded in 911 call centres to help triage mental-health calls. Initial data from communities that practise diversion tactics show that very few, if any, calls to alternative emergency-response programmes require law enforcement.

In Denver's programme, not a single call has required police backup. Los Angeles has diverted hundreds of suicide-related calls to a local hospital with specialised suicide-response units. These approaches are logical and practical and free up police to focus on public-safety incidents that are better aligned with their training.

GLORIA GONG

Executive director
Government Performance Lab
Harvard Kennedy School
Cambridge, Massachusetts

Our new Culture section

Stories don't only offer vicarious adventure and solidarity ("Food for thought", January 22nd), they have cognitive functions, too. Stories, whether associated with a computational model, novel or a film, convey models of the world that shape public reasoning. Just as Jane Austen's novels model some of the rules of society in Regency England, so Kim Stanley Robinson, who spoke at COP26 in Glasgow, writes models of possible future societies as they adapt to climate change.

Story-listening is as important as story-telling, and *The Economist's* new Culture sec-

tion won't only be acknowledging the erosion of past and present, its reflections on the present will inform the future.

CLAIRE CRAIG

Provost

The Queen's College Oxford

SARAH DILLON

Professor of literature and the
public humanities
University of Cambridge

Drunk on power

I enjoyed Bartleby's column about drinking in the office (January 22nd). Perhaps the inhabitants of Number 10 are simply taking their lead from Herodotus, who told us how the Persians made important decisions:

It is also their general practice to deliberate upon affairs of weight when they are drunk; and then on the morrow, when they are sober, the decision to which they came the night before is put before them by the master of the house... Sometimes, however, they are sober at their first deliberation, but in this case they always reconsider the matter under the influence of wine.

ALAN BUXTON

Rickmansworth, Hertfordshire

Boris Johnson's accusation that Sir Keir Starmer failed to prosecute Jimmy Savile, Britain's most notorious paedophile, is a perfect example of the adage that when the debate is lost, slander becomes the tool of the losers (Bagehot, February 5th).

JOE KENNEDY

London

The world is watching Mr Johnson's excruciating performances in Parliament. When in time this is written as an updated fable of Aesop, it might be titled, "The Tortuous and the Hair".

BRUCE STENING

Canberra, Australia

Letters are welcome and should be addressed to the Editor at The Economist, The Adelphi Building, 1-11 John Adam Street, London WC2N 6HT
Email: letters@economist.com
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Chair of the Single Resolution Board

Single Resolution Board - Brussels
COM/2022/20074

The role

As Chair, you will lead a key organisation in the Banking Union and make a significant contribution to promoting financial stability in the EU. You will be responsible for a growing agency with close to 400 staff members and for steering its challenging mission. As well as heading the SRB decision-making bodies and acting as a voting member, you will actively work with the European and international financial regulatory community and the banking industry to ensure bank resolvability.

About you

You are a dynamic manager with proven success in decisively leading organisations where you develop and implement strategic visions. You have in-depth knowledge of the banking and financial sector, as well as the European and international regulatory framework. You have outstanding experience in one or more of the following domains: supervision, restructuring or resolution of financial institutions and the regulation of financial markets.

About us

The Single Resolution Board (SRB) is the central resolution authority within the Banking Union. Its mission is to ensure an orderly resolution of failing banks with minimum impact on the real economy and the financial systems of the participating Member States and beyond. The SRB focuses on resolution planning and enhancing bank resolvability.

The SRB promotes equality and diversity in the workplace and is an equal opportunity employer. Applications from women are particularly encouraged.

The European Commission conducts the selection process.

For the detailed job description and how to apply, please visit the Official Journal of the EU: 2022/C 43 A/02

<https://eur-lex.europa.eu>

The closing time and date for the submission of applications for this call is
25 February 2022, 12.00 noon Brussels time.



Member of the Board and Director of Resolution Planning and Decisions

Single Resolution Board - Brussels
COM/2022/20072

The role

You will be part of the senior management in a key organisation in the Banking Union, and have the opportunity to make a significant contribution to promoting financial stability in the EU. You will be responsible for helping to shape the strategy and methodology for bank resolution activities in a dynamic and growing agency. As well as taking part in the SRB decision-making bodies and acting as a voting member, you will lead and manage a directorate with approximately 75 staff members.

About you

You are a successful manager with proven experience in leading large multidisciplinary teams and in motivating staff to perform to a high level. You have in-depth knowledge of the banking and financial sector. You are highly experienced in one or more of the following domains: supervision, restructuring or resolution of financial institutions and the regulation of financial markets.

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The other midterms

BARABANKI, DELHI AND LUCKNOW

The largest local elections in the world will show what lies in store for India and its prime minister, Narendra Modi

THE STATE of Uttar Pradesh is a tad larger than the United Kingdom and three and a half times as populous. Covering much of the vast, fertile Gangetic Plain and pressed up against the border with Nepal, it is home to such treasures as the Taj Mahal and the Hindu holy city of Varanasi, as well as fast-expanding industrial zones, an astonishing 97,941 villages and the constituencies of one-in-seven Indian MPs. Increasing the number of parliamentary seats it took in UP (India loves initials) from 10 to 71 was a key part of the success which saw the Bharatiya Janata Party (BJP) win power in 2014 and made its leader, Narendra Modi, India's prime minister.

The state also packs in a disproportionate quota of despair. It seems to fester with India's grisliest crimes, its harshest oppressions by caste, sex or faith, its most feckless politicians and its most polluted environments. It has remained grindingly poor. At \$991, nominal GDP per person amounts to less than half of the country's modest average, and lower than that of any other Asian country save Afghanistan and Tajikistan (see chart 1 on next page).

On February 10th UP's 150m voters began the month-long process of voting for the state's legislative assembly. It is the world's largest subnational election. The BJP's effectiveness in defending its majority in UP's legislature—it currently holds 303 of 403 elected seats—will be keenly watched throughout the country.

Three years into his second term, Mr Modi remains the strongest and most popular prime minister India has had since Indira Gandhi in the 1970s. But political headwinds are mounting. Covid-19, inflation, ever-starker disparities in wealth and intractable youth unemployment have all eaten away at the BJP's narrative of "development for all".

Policy blunders such as a flopped effort at farm reform have angered voters across the country. Resistance to Mr Modi's centralising, homogenising tendencies has stiffened, too, particularly in the non-Hindi-speaking peripheries of the country. The headwinds were seen at full force in last year's legislative elections in West Bengal, another big, important state. The BJP rolled its full juggernaut into the fray,

laden with money and national figures, only for the local Trinamool Congress to pull its wheels off and chase Mr Modi's men back to Delhi.

In contrast to Bengal, UP sits at the core of the Hindi-speaking, religiously conservative hinterland that is the BJP's natural habitat. But disaffection has seeped in here, too. The verdict its voters deliver over the coming month—for electoral purposes the state is divided into seven slices which vote in sequence—will be a powerful signal as to India's political future.

A severe setback could throw doubt on the BJP's ability to win a third five-year term of national power in 2024. On the other hand, a strong showing will encourage Mr Modi to complete his refashioning of India into a *Hindu rashtra*, a state whose defining feature is not the diversity of its citizens but the faith of its 80% Hindu majority. This ideology of Hindutva is the BJP's reason for being, and Mr Modi has been pursuing it in an increasingly autocratic manner. His view of the transformation he is bringing about seems increasingly tied to his own metamorphosis from politician into high priest of the new order.

A convincing victory in UP is important to this project not just because of the state's size but also because of who runs it: Yogi Adityanath, leader of a religious order in eastern UP. He is 22 years younger than the 71-year-old Mr Modi, who gave him his job. As the prime minister's anointed viceroy in India's most populous state he is naturally viewed as a potential heir. ▶

Over five terms as an MP the tonsured, saffron-robed monk gained a reputation for fiery chauvinism. In one speech he declared, "If they take one Hindu girl, we will take 100 Muslim girls." When the BJP took hold of the UP legislature in 2017 (see chart 2) some warned Mr Modi that raising such an extremist to high office would damage the party's image. Mr Modi ignored them, confident that India's political centre was shifting further to the right, and was thus able to accommodate such views.

The chief minister lacks his sponsor's sharp political instincts and photogenic flair, but shares his commitment to celibacy, penchant for pithy speech and snarling contempt for the old Anglophone order. He is no placeman. With his own independent base, he is rumoured to bridle at the interfering ways of the prime minister's office, of the BJP high command and of the Rashtriya Swayamsevak Sangh, the Hindutva mother organisation in which Mr Modi served before turning to politics. But his style and views link him inextricably to Mr Modi's project. If he does well, it will be a good omen both for that project's continuation and for Mr Adityanath's role in it. If he does badly, it may be back to temple duties for him.

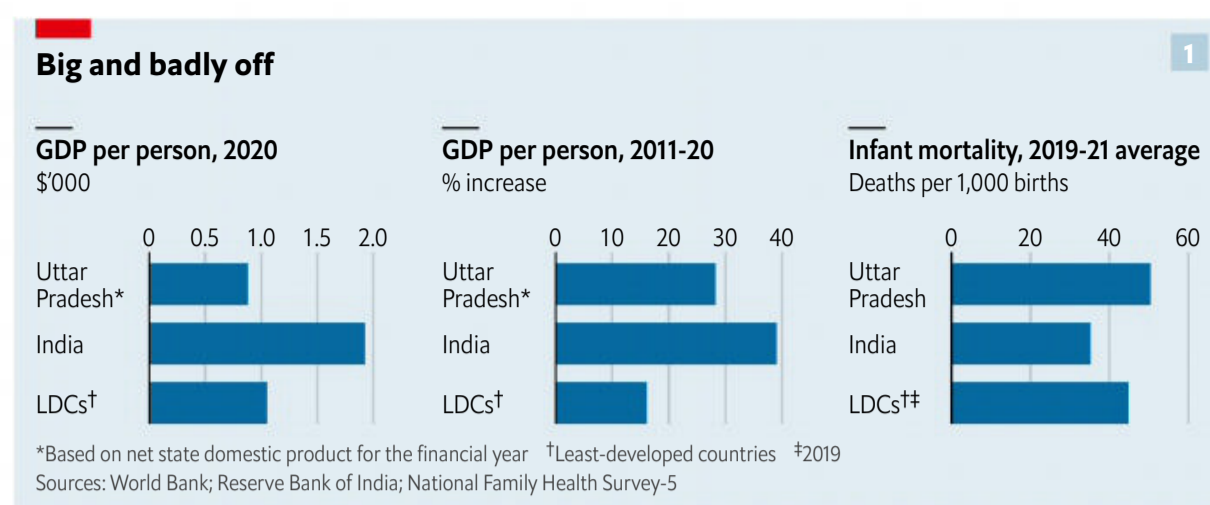
Disharmonious monk

Mr Adityanath has been an industrious and demanding leader. He has promoted Hindutva in various ways, including throttling the trade or slaughter of cattle, promoting religious events and further criminalising the encouragement of religious conversion, ostensibly to protect Hindu women against a "love jihad" being waged by Muslims. He has also diligently pursued the "development for all" agenda.

All Indian parties promise voters goodies. But Mr Modi has taken a strong personal interest in delivering freebies to the poor. From accelerated road-building to the provision of free food during the covid-19 epidemic, not to mention handouts for farmers and other entitled groups, the "double-engine" effect of aligned state and national governments mean UP has benefited disproportionately from central-government largesse. Certificates of vaccination and sacks of free grain alike come emblazoned with the prime minister's paternal portrait.

Mr Adityanath also takes a tough line on law and order. Upper-caste Hindus, who make up around a fifth of the electorate, praise his gloves-off approach. "Earlier, thugs and criminals used to walk around with their chests out," says Rajesh Gupta, a prosperous baker in Barabanki, a provincial town east of the state capital, Lucknow (see map online). "Now the government has got rid of *goondah-gardi* (thuggery)."

It is true that incidents of communal rioting, banditry and racketeering, long en-



demic to UP, have come down. But overall, respect for the law has not gone up. In the Muslim community (which makes up 19% of the population, compared with 14% nationwide) and among the Dalits, once known as Untouchables (21%, compared with 16%), there is little love for the tough measures about which Mr Adityanath boasts. Film of anti-government protests in Muslim districts has shown police acting as violent vandals.

The police have glaringly failed to protect lower-caste Hindus. In one notorious case in 2020 they ignored the parents of a 19-year-old Dalit woman who accused a group of men from the Thakur caste of raping their daughter. When she died of her injuries her family was pressed to cremate her corpse without a post mortem. A month later they used anti-terror laws to arrest Siddique Kappan, a journalist covering the story. Mr Kappan, a Muslim from India's far south, remains in prison awaiting trial. So do many of the 360 other people jailed under the same rules that year.

Such scandals stem from the BJP's fundamentally divisive approach to politics. If you set aside the upper-caste Hindus and the Dalits and Muslims (who themselves are deeply divided by class and ideology), the bulk of UP's electorate is made up of a broad category officially termed Other Backward Classes (OBCs). This thick slice, including traditional yeoman farmers such as Jats and Kurmis but also myriad

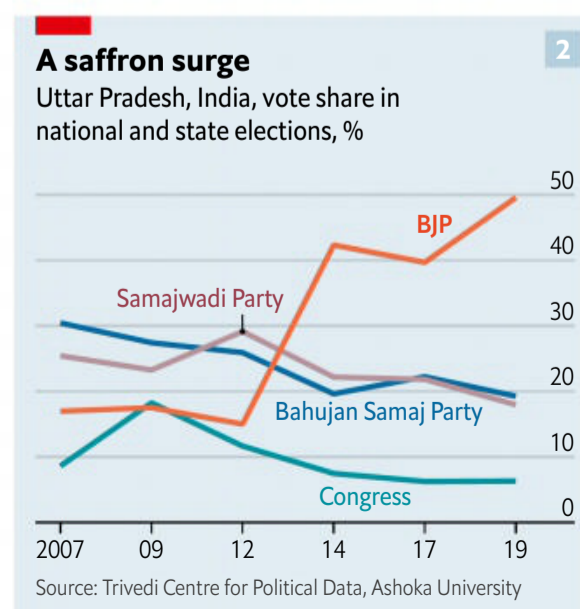
smaller communities, has in recent decades become the fiercest political battleground in north Indian elections. The BJP's success with OBCs, amplified by the effects of India's first-past-the-post electoral system, provided the party with a landslide in UP's legislative election five years ago.

In 1980 a government commission recommended that OBCs, and not just truly oppressed groups such as Dalits, should benefit from state quotas in jobs and education. That encouraged the growth of parties demanding respect and rewards for their particular group. In northern India and elsewhere this undermined the once-dominant Congress party, a big-tent movement that had led India to independence. In UP it was replaced by a system where power shifted back and forth between the Bahujan Samaj Party (BSP), supported by Dalits and Brahmins, and the Samajwadi Party (SP), dominated by Yadavs, a large OBC community who are by tradition cattle-herders, though few make their living that way these days.

Start your double engines

The BJP's approach to this fragmented electorate is to target higher castes with appeals to law and order and Hindu pride; to woo smaller OBC groups, and Dalits, by accusing others, such as Yadavs, of grabbing spoils for themselves; and to bind it all together by stoking hostility to Muslims. This approach buried the SP and the BSP in the elections in 2017, producing a legislature with more high-caste Hindus and fewer Muslims than UP had seen for decades. The success of this polarisation strategy can be seen in a shift it has encouraged in other parties. For fear of being branded as "appeasing" Muslims or indulging in "vote-bank politics", many are now shy of running Muslim candidates, even in the parts of the state, such as its north-west, where minority numbers are biggest.

For the BJP's strategy to work again, though, it needs OBC voters who trusted the BJP last time to do so again. Some doubtless will. In Ramna, a village near the Ganges just outside of Varanasi, a big pilgrimage centre that Mr Modi has chosen as his own parliamentary district, the govern-



ment has been generous and farmers wax enthusiastic. They tick off a litany of improvements, from better power supply and roads to schemes for insurance, compensation for flood damage and subsidised seeds and fertiliser. “Tell me if we did not vote for the BJP government, then for whom?” asks Lalchand Patel, gesturing towards neat plantings of winter vegetables.

But in Shahpur, a village 30km to the north of Ramna, lower-caste farmers complain of rising prices and of the feral cattle that now wander the countryside since they can no longer be sold. “Modi-ji fooled us,” says Dinesh Dev Rajbhar. “They are giving us a lollipop of five kilos of free grain, but then their stray cows damage 50 kilos of our yields. Let them come this year, we will answer them with our votes.”

In the village of Saidanpur, an hour’s drive east of the state capital, Lucknow, a farmer scoffs at Mr Adityanath’s boasts of *vikas*, or development, of building broad highways, medical colleges and a high-tech “defence corridor”. Come to my house and I’ll show you development, he says. Across a dirty ditch, through a muddle of goats wearing cast-offs against the winter chill, he points in sarcastic triumph at a low wall built of cow dung and a plastic tarp held up by sticks: “This is my *vikas*.”

For all this, the double engine gives the BJP the ability to make promises that would not be credible from its smaller rivals. And it has its customary recourse to dog whistles aimed at stoking sectarian feeling. In an attempt to appeal to Jat farmers in western UP, who have turned against the BJP due to the very poorly implemented effort at farming reform, Amit Shah, India’s home minister and Mr Modi’s right-hand man, told a rally that his party and Jats shared the same ideology because “both had fought against Mughal invad-

ers”—a pointed reference to a Muslim dynasty that once ruled much of India. Mr Adityanath has repeatedly insinuated that under previous governments, only Muslims got government handouts, while Muslim mafiosi made streets unsafe for respectable folk. “To them, Pakistan is dear, but we sacrifice our lives to Mother India,” he recently tweeted.

When it comes to putting such messages across, the BJP also has advantages in terms of volunteers and cash. It fields a quiet army of diligent organisers from a constellation of powerful grassroots Hindutva groups. Its coffers are full, in part thanks to a recent law that allows unlimited anonymous funding of parties via “electoral bonds”, in part thanks to favours it has granted to some of India’s wealthiest (see Asia section).

Goodnight and good Lucknow

This wealth has been a boon to UP’s newspapers, where full-page adverts lauding Mr Adityanath’s mighty achievements appear daily, and to creators of posters, flags and catchy jingles. Not that the BJP has to pay for all its advantages in the media. Altnews, an online fact-checking site, revealed that nearly all the “random” interviewees in a vox-pop segment on a local television station were members or employees of the BJP. This is not atypical.

Perhaps the biggest advantage that the BJP enjoys, in UP as nationally, is the fragmentation of its opponents. Aside from a smattering of smaller parties, most of which aim to contest only a few of the state’s 403 seats, there are three main challengers: Congress, the BSP and the SP. Having failed to come up with a formula by which each party would stand down in some seats to give one of the others a better chance, they are condemned to fight each

other as well as Mr Modi’s behemoth.

Despite an interesting new emphasis on attracting women voters, Congress is widely dismissed as a spent force in the state. The BSP, although still popular among Dalits, no longer finds itself able to push beyond that base. This leaves the SP as the main contender. Its last stint in power was lacklustre. In 2017 its share of the vote fell from 29% to 22%. The party has since rebuilt itself around Akhilesh Yadav, the scion of a local political dynasty. Mr Yadav has successfully roped in at least seven smaller parties, each with drawing power in a local community, such as the Jats.

Perhaps more importantly, he has benefited from multiple defections. The SP has welcomed quite a few OBC candidates from the BJP who claim to have been misled by Mr Adityanath and Mr Modi. This does not just help the party appeal to more voters; it is also a vote of confidence. In a state particularly prone to horse-trading and jockeying, ambitious players are betting on a future in the SP.

Enjoying a base among his own caste and an almost certain tactical vote from most Muslims, Mr Yadav is banking on capturing votes from a wide section of disgruntled communities. In at least half a dozen villages, especially in western UP, BJP candidates have been chased away by hurled shoes, rocks and insults. This suggests that in some parts of the state, at least, voters are not buying the BJP’s propaganda offensive.

Opinion polls indicate that Mr Modi’s party’s grip on the state will slip a bit, but not fail completely. Most predict the BJP will lose 50 or more of its 303 seats, with the SP winning perhaps 150. But several pollsters put the BJP firmly ahead in last year’s state election in West Bengal, only to see it humiliatingly trounced. And in UP’s electoral history, dramatic upsets, helped by the first-past-the-post system, tactical voting and fast-shifting alliances, have been more of a rule than an exception. The state has a habit of punishing incumbents for over-confidence, as the SP can attest.

The near-term impact of a defeat for the BJP when the votes are counted on March 10th would be limited. Because state electors get a vote on who becomes president, fewer BJP legislators would make it less likely for that vote, which will take place in July, to produce a president aligned with the party. That might have some effect on the degree of constitutional change he could undertake, but the president’s powers are pretty scant. In the longer term, though, it could have a profound effect on the BJP, tempering its triumphalism. And a true drubbing would throw Mr Modi’s reelection in 2024 into doubt. Whether it would also improve the prospects of this vast, poor state remains an open question. Little else has. ■



Heir apparent?



Congressional redistricting

Another round of election-rigging

WASHINGTON, DC

Democrats have fared surprisingly well in Congress's new maps. But the boundaries still favour Republicans

THE PROMISE of democracy is a system where leaders represent their voters, and where those voters can throw them out. But in America, the reverse can also be true: politicians in many states can choose which voters represent them. The constitution delegated the power of drawing the boundaries of electoral districts to state legislators; many abuse this power and “gerrymander” districts in their party’s favour. Citizens in some states have amended their laws to give watchdog powers to the judiciary or require plans to be approved by an independent third party. But most Americans still live in states where politicians are incentivised to rig elections by drawing biased maps.

Because Republicans have lately controlled more state governments than Democrats, they have tended to do better in congressional redistricting. After redrawing maps in 2010, the Republicans lost the popular vote for the House of Representatives but still won a majority of its seats. In the national popular vote in 2012,

Mitt Romney, the Republican candidate, lost to Barack Obama by 3.9 percentage points. But in the median House district—ranked by that year’s presidential results—it was Mr Romney who edged out Mr Obama by 0.3 points. In an equal system, those numbers should roughly match. In fact the House was biased against Democrats by four points in 2012, and again in 2016. In 2020 the median district was biased against Joe Biden by two points.

But in 2022, after states redraw their congressional lines according to new pop-

ulation estimates from the 2020 census, this bias is almost certain to be much closer to zero. Democrats have made surprising gains in the redistricting process. Three main reasons explain their success.

One is gerrymandering of their own. Although Republicans have been notorious for abusing the process over the past decade, Democrats have caught on. Consider the new congressional map in New York, which Democrats have just signed into law. According to analysis by *The Economist* of election-results data collected by FiveThirtyEight, a data-journalism website, the state’s previous plan contained 18 districts where the average vote-share for Democratic presidential candidates over the past two contests was higher than the Republicans’. The new plan has 22.

The story is similar in New Mexico. Democrats control the state government there, too. Whereas the state’s previous congressional districts comprised one heavily Republican seat and two Democratic strongholds, lawmakers have rejigged the boundaries so that all now lean towards the Democrats.

That brings the Democrats’ net gains from redistricting in New York and New Mexico to five seats. Add to that the changes in Oregon and Illinois—blue states with minimal third-party oversight over redistricting—and the party comes out with an expected ten seats more than in 2020.

The Democrats have also benefited ▶▶

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from reforms that keep districts fairer. Take Colorado. After the 2000 and 2010 censuses, state legislators there failed to agree on maps, so state courts drew the lines instead. In November 2018, fed-up Coloradans passed a ballot initiative that authorised an independent commission of residents—four Democrats, four Republicans and four “unaffiliated”—to redraw the state’s congressional boundaries. It joined Arizona and California (which began using similar models in 2000 and 2010, respectively) and Michigan (2018) as the only states using partisan-balanced commissions of citizens to draw district maps.

Colorado’s commissioners began meeting in March, and by the final months they were working as many as 40 hours each week to meet their October deadline. Simple rules guided them: create non-discriminatory, contiguous districts of equal size; maximise political competition; and preserve so-called communities of interest—neighbourhoods where voters have shared policy concerns and would benefit from being in the same district (examples include ethnic, racial and economic groups).

The commission’s maps do not require approval from the governor or the state legislature. This year the final map preserves the partisan leanings of Colorado’s seven existing districts, and adds one more Republican-leaning seat with the additional representative the state gained thanks to the increase in its population. The commission also made the Seventh District more competitive. The current representative there, Ed Perlmutter, a Democrat, announced last month that he would not seek re-election. In a climate that favours Republicans, he may have struggled to win the revised district anyway. The maps in

Michigan ended up similarly balanced.

Lastly, there are the courts. Those in Ohio and North Carolina both struck down maps they said favoured Republicans too much, acting as partisan gerrymanders that violated state constitutions. In Ohio, Republicans drew a map which made 73% of the state’s districts lean towards Republicans—though the party won only 55% of the vote statewide. “By any rational measure,” Justice Michael Donnelly said in the court’s opinion, “that skewed result just does not add up.” Republicans in North Carolina passed a map which gave them the edge in 71% of seats, even though Donald Trump beat Mr Biden by only one point there in 2020. Neither state has yet approved a new map.

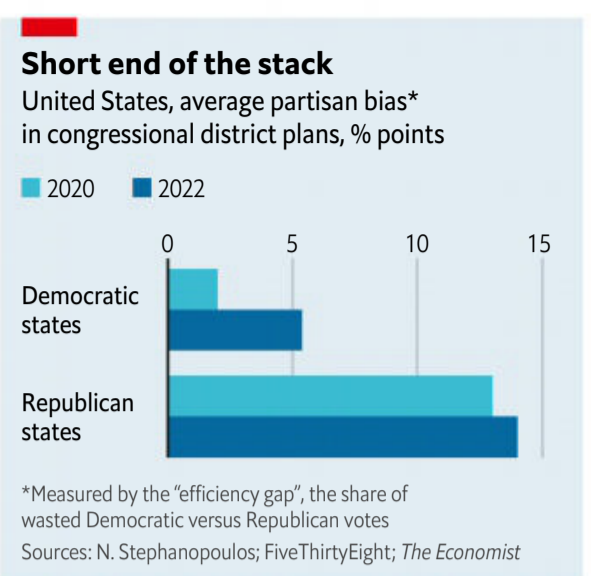
A lower court in Alabama also ruled that its new map is biased against African-Americans, but on February 7th the Supreme Court voted 5-4 to approve it for the 2022 election. The map provides for only one of seven districts where black voters will have a chance to elect a candidate of their choice, in a state where 27% of the voters are black. Plaintiffs say legislators could easily have drawn a second. The decision highlights the limits of a judicial approach to enforcing fair mapmaking—at least in the federal courts.

Cracking and packing

In all, across the 30 states that have passed maps so far, Democrats have gained 12 new seats where they make up more than half of voters in presidential elections. Yet the map as a whole may still be biased towards Republicans. The gap between Mr Biden’s margin nationally and in the new median is likely to be between half and a full percentage point rather than two points.

Further, some political scientists think a simple tally of seats is not enough to assess partisan balance fully. Nick Stephanopoulos, a Harvard professor who helps with analysis at PlanScore, a website that checks maps for fairness, prefers to focus on the “efficiency gap”. This measures the share of Democratic and Republican votes that are “wasted” in each seat. Wasted votes are those that are cast for parties in excess of the margin they need in districts they win, plus every vote cast for the party in seats they lose. The measure can be thought of as quantifying both how many members of one party are “cracked” into losing districts and the number that are “packed” into safer ones (see map).

In the states that Joe Biden won in 2020, there is an efficiency gap of roughly five points favouring Democrats. That means roughly 5% more Republican votes than Democratic ones are wasted across them. That is an increase over the two-point gap in those states under previous lines, reflecting Democratic gains from the gerrymandering, reform and litigation efforts.



But in Republican states, the efficiency gap will be roughly 14 points (the precise number depends on what the final maps look like; our figure is based on the average across the likeliest plans under consideration). That is an increase over the 13-point efficiency gap in those states under the 2020 congressional map. In other words, the maps in both Democratic and Republican states have become more biased as a result of this decade’s redistricting. And the average Republican plan creates many more wasted votes than the average Democratic one (see chart). In states with independent redistricting commissions, by contrast, the absolute efficiency gap fell by nearly three points, meaning districts were less gerrymandered. It increased by three points elsewhere.

According to estimates of district partisanship produced by Mr Stephanopoulos and shared with *The Economist*, more Republican states have also focused more on ring-fencing their current advantage. That has meant shifting seats with mild Republican advantages farther right, instead of focusing on drawing Democrats out of the ones they have. In Texas, for example, the Republican-dominated legislature packed Democrats into five new seats, but removed all but one competitive district. And it took the two new representatives the state was apportioned in 2020 and drew two new districts where Republicans are expected to win. This almost ensures that the state’s congressional delegation will stay Republican for the next decade.

Although rosier for Democrats, the 2022 round of redistricting reflects the arms-race nature of gerrymandering. “National partisan fairness is perfectly compatible”, Mr Stephanopoulos says, “with extreme subnational partisan unfairness.” Bias in Republican states such as Texas and Florida, and in Democratic states such as New Mexico and Oregon, still produces many wasted votes in congressional races, even if the number of seats parties are expected to win nationally is roughly fair. It is no puzzle who is hurt when politicians are able to select their own voters. ■

Deeper blue, darker red

Change in partisan bias* of congressional district plans, 2020-22, % points

More efficient rigging ← Dem Rep →
30 20 10 5 0 5 10
No change

States with only one district
States that have not yet passed a plan for 2022†



*Measured by the “efficiency gap”, the share of wasted Democratic versus Republican votes

†Average change in plans under consideration

Sources: N. Stephanopoulos; FiveThirtyEight; *The Economist*

Touro synagogue

Another exodus?

NEWPORT, RHODE ISLAND

Rival Jewish congregations feud over America's oldest synagogue

TOURO SYNAGOGUE sits on a hill at an angle so that its ark faces Jerusalem, as tradition dictates. Stepping inside, one immediately senses its sacredness. But it is not just a shrine for Jews. It is also, as President John F. Kennedy once said, “one of the oldest symbols of liberty”. Touro sits at the intersection of religious freedom, American history (a trapdoor in the *bimah*, or podium, may have been part of the Underground Railroad) and the history of Jews in America. For nearly a decade the oldest synagogue in the country has been at the centre of a dispute between its occupants, Congregation Jeshuat Israel (CJI), and its owners, Congregation Shearith Israel (CSI).

Jewish merchants came to Newport in around 1658 from Spain and Portugal, by way of the Caribbean and South America. They bought land for a cemetery two decades later. By 1763 the community was large enough to open a synagogue. In 1790 George Washington famously promised Touro's members that religious “toleration” would give way to religious liberty.

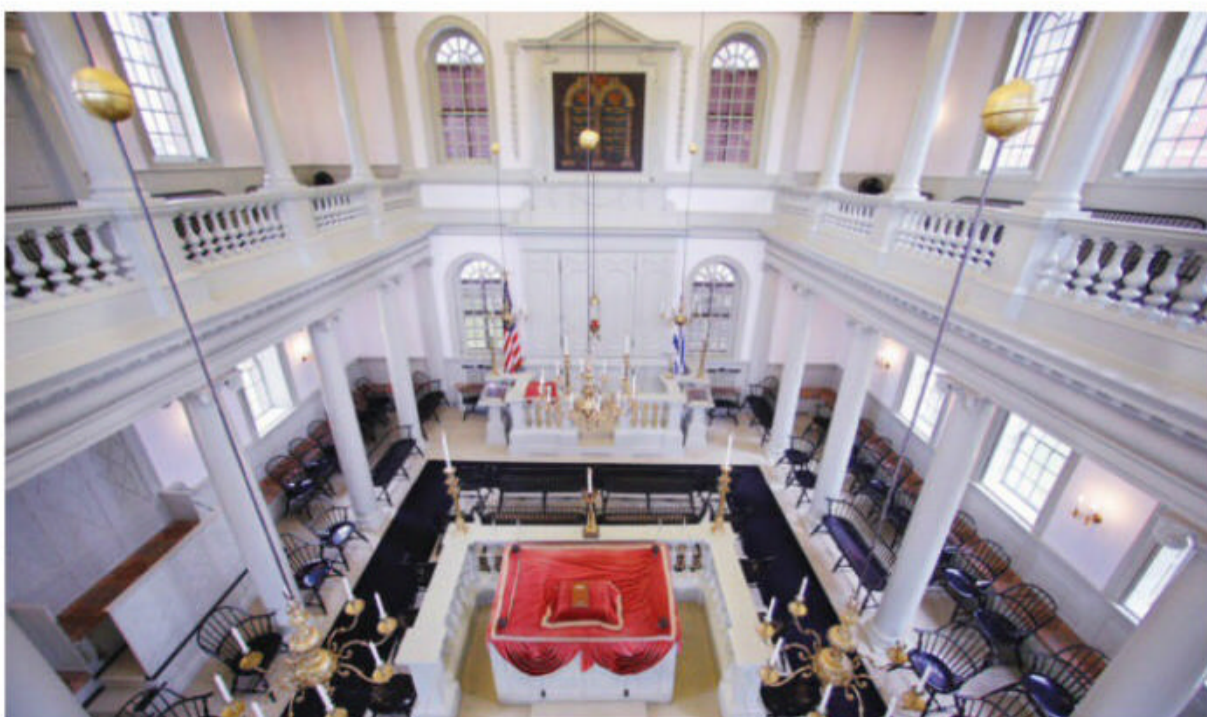
By the 1820s most Jews had left Newport. Their scrolls and other sacred items were sent to New York's CSI for safe keeping. But after the arrival of Jewish immigrants from eastern Europe, the synagogue reopened in 1883. The new members leased the synagogue from CSI for \$1 a year and promised to maintain the building. The synagogue follows Sephardic traditions, as it did when it first opened, even though most members are Ashkenazi (with roots

in Russia and eastern Europe).

The congregations clashed over CJI's planned sale of *rimonim* (ceremonial bells to crown the Torah scroll) made by Myer Myers, a colonial silversmith, to a Boston museum for \$7.4m. CJI hoped to create an endowment to help maintain the building. But CSI claimed that selling the artefact violated Jewish law as well as the lease agreement. It went to court to assert that it owned the building and its historical contents, including the bells. CJI then sued CSI, seeking ownership of the synagogue and its artefacts. A federal court first gave control to Newport's CJI, but an appeals court ruled in favour of the New York lot, saying religious groups' contracts were enforceable just like any property contract.

The congregations also feuded over a proposed burial in the long-closed Touro cemetery. John Loeb, a businessman and former ambassador, has been a generous friend to the Newport congregation, which agreed he could be buried in the cemetery (the subject of a Longfellow poem). Last year a headstone was erected in memory of the still living Mr Loeb. Louis Solomon, CSI's president, says “the whole problem is that they haven't been transparent”. Mediators were unable to get the congregations to agree to a truce. CSI filed legal proceedings to evict CJI from Touro. Mr Solomon wrote to the members on February 3rd promising “no congregants are being evicted” and that the rabbi is welcome to stay.

Meir Soloveichik, CSI's rabbi, sees his community as a steward of colonial Jewish artefacts. CSI wants to change the board overseeing activities at Touro. Louise Ellen Teitz, co-president of the Newport congregation, calls this a “hostile takeover”. She wants security for her small congregation in the form of a long-term lease. “This is the building and the place that we've worshipped for almost 140 years, which is longer than the original congregation.” ■



A historical Touro d'horizon

TikTok nuns

Sister act

BOSTON

A group of nuns goes viral for Jesus

LAUGHTER WAS the first thing your correspondent noticed when he visited the Daughters of St Paul (also known as the “Media Nuns”) on the outskirts of Boston. It reverberated off the marble saints and through the convent's hallways. The primary sources of the mirth are Sisters Orienne Pietra René, 31, and Danielle Lussier, 38. The two form a comedy duo. They giggle as they explain that their cars are named after saints (some share the same patron, which causes confusion). This cheerfulness explains their surprising popularity outside the convent. They have more than 155,000 followers on TikTok, a social-media app.

Their posts, which have gathered over 15.5m views, blend convent life with popular culture. Last year, for example, they posted their rendition of a viral song that spoofs a melodramatic exchange on Facebook about a rental property (a prospective tenant enquires about the property's availability before turning hostile and threatening to call the attorney-general). The nunnified version turns it into a struggle against temptation, which culminates with the nun threatening the devil with Jesus. The post has 3.3m views.

The nuns quickly became an internet sensation, earning their own hashtag (#nuntok). The sisters are unfazed by their sudden popularity. They would rather pray, which they do a lot. They pray for every person who watches their videos. They pray for those who send them direct messages. They even pray for the trolls who leave nasty comments.

Fewer women are responding to the call of nunhood. There are about 41,000 nuns in America, down from 160,000 half a century ago. Young Americans are more secular and anti-institutional, making a life of chastity and poverty seem less appealing. But Sisters Pietra René and Lussier—who taught French and studied art, respectively—are proof that some still find it compelling.

They say TikTok is also helping people realise that nuns are normal people. Their online interactions have led to conversations about faith and even to friendships. A few fans have visited the nuns in person. “At the end of the day all we are asking is to be able to see one another as human beings,” Sister Pietra René says.

The green economy's costly crossroads

A new report by Deloitte identifies an economic “turning point” in America’s climate change journey.

There is now little doubt that the world is approaching a critical crossroads on climate change. In 2021 Americans watched wildfires spread across the West with unprecedented ferocity. Cold snaps in the country’s heartland destroyed harvests, while the Gulf was battered by hurricanes.

The scale of these events has not gone unnoticed. CEOs have devoted many pages in their shareholder notes to the threat of climate change, while politicians have banged their fists in determination. The cacophony dies away, however, when they are presented with the upfront costs.

Decision-makers are looking at these costs in a siloed way. A new report from the Deloitte Economics Institute seeks to address that collective sense of shock head-on. “The world’s current system of economic production is creating untenable changes to our physical environment, so we need to create a new model for economic growth,” write the authors of *The turning point: A new economic climate in the United States*. “Every corner of the economy will be impacted, and every organization and individual has a role in remaking the systems that underpin modern life.”

The cost of inaction

At the heart of this analysis is Deloitte’s D.Climate model (Regional Climate Integrated Assessment Computable General Equilibrium Model), which models the economic impact of climate change scenarios. The analysis makes the costs and benefits of climate policy responses and investment decisions easier to see, and offers a longer view of what policy decisions could cost the US down the line. On exactly how much is at stake, Deloitte’s analysis offers

some sobering findings. Without sufficient action on decarbonization, the US economy stands to see losses of \$14.5trn (present value) over the next 50 years, or a lifetime loss of nearly \$70,000 for every American worker today. In that time, the US would also risk shedding 900,000 jobs each year on average. Losses would be particularly high in manufacturing, retail and tourism, and in the public and private services industries.

Reaping the spoils

Combating these outcomes would come at a lower economic cost than budget hawks might expect. It would take significant investment over many years, the report finds, as the US adjusts policy, funds research and brings online new technology that shifts the nation away from emissions-intensive production. But, according to Deloitte, the necessary transformation could be accomplished for an average annual reduction of 0.1% of GDP, or an average of about \$35bn, every year to 2050. This net cost captures the enormous investments that will lead to value creation, as well as the disruption to activity in other parts of the economy. This analysis also accounts for the costs of locked-in climate damage, even as the world reaches net zero.

But its model suggests that Deloitte has identified what it calls the “turning point” – the moment at which the costs of a massive investment in decarbonization would begin to pay off. It finds that taking steps now to invest in the skills, technology and innovations required to drastically curb carbon emissions would set up the US for economic gains every year from 2048.



\$885 billion

The estimated net economic benefits annually by 2070 if the United States moves full speed towards decarbonization.

By 2070, the model shows, the US will have added some \$3trn (present value) to the economy and the net economic benefits would reach \$885bn annually. In that year, US GDP would be 2.5% higher than it would be without such an investment.

In addition, Deloitte suggests that early job growth in clean energy, telecommunications and other industries would be steep. By 2040 the US could see about 320,000 new jobs in clean energy added annually, and nearly 100,000 new jobs in low-emission advanced manufacturing.

Who is at risk?

While the threats outlined in the report are numerous, they are not evenly distributed. The economic blows would be disproportionately severe in the Southeastern states, which are at highest risk from the adverse effects of rising temperatures.

If temperatures were to rise by 3°C the southeastern states would suffer an estimated \$5trn (present value) in economic losses by 2070, linked to increasing health problems, declining tourism, and disruption to agricultural yields. On the flip side, the Deloitte model shows that these states have the most to gain from widespread decarbonization, both in economic dividends and in employment, in a net-zero economy.

“We are faced with a choice,” the report concludes. “Do we commit to a prosperous, decarbonized future for the US or do we continue to allow climate change to damage our growth?”

Voters' allegiance

Signs of less Trumpy times

WASHINGTON, DC

Donald Trump's grip on Republican voters is starting to slip

CRACKS ARE starting to show at the top of the Republican Party. The Republican National Committee last week censured Liz Cheney and Adam Kinzinger, two of Donald Trump's chief critics in the House, for taking part in the congressional investigation of last year's attack on the Capitol and aiding the "persecution of ordinary citizens engaged in legitimate political discourse". On February 8th Mitch McConnell, the party's Senate leader, hit back, calling the events of January 6th 2021 a "violent insurrection for the purpose of trying to prevent the peaceful transfer of power after a legitimately certified election from one administration to the next".

A few days earlier Mike Pence took a similarly firm stance against his ex-boss's claims of election-rigging. "I heard this week that President Trump said I had a right to overturn the election," Mr Pence said. "President Trump is wrong...And frankly, there is no idea more un-American than the notion that any one person could choose the American president."

These spats highlight a growing rift between some senior party figures over Mr Trump. And there are other signs that Mr Trump's grip on Republicans is slipping.

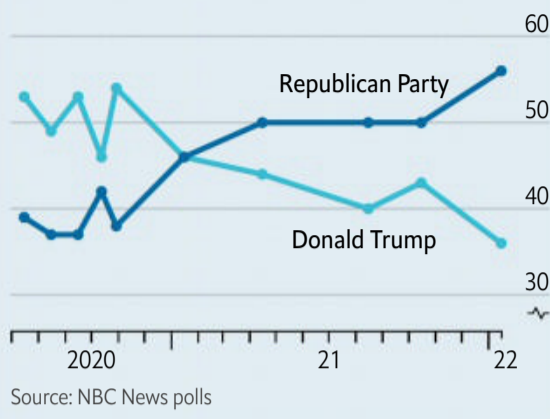
According to an analysis by the *New York Times* of candidates' reports to the Federal Election Commission (FEC), in the last quarter of 2021 all seven House Republicans who voted to impeach Donald Trump and are seeking re-election out-raised their primary opponents. One of them, Fred Upton from Michigan, raised \$726,000 in the last quarter; Steve Carra, a challenger whom Mr Trump has endorsed, raised only \$134,000.

To follow the money here is to peer into the psychology of Republican voters. Do they still support their former president? Some public-opinion polling points in the same direction as the FEC data, and suggests that Mr Trump is in his worst position since at least early 2019.

For the past two years pollsters working for NBC News have been asking Republican voters if they "consider [themselves] to be more of a supporter of Donald Trump or more of a supporter of the Republican Party". At the end of October 2020, 54% of respondents who identified themselves as Republican said they were more a supporter of Mr Trump, whereas 38% said they were more loyal to the party. In their first poll this year, NBC finds a near-complete

Up, up—and away

"Are you more of a supporter of Donald Trump or the Republican Party?"
United States, % responding



reversal of those patterns: 56% proclaim more support for the party and 36% say they are more for Mr Trump (see chart).

Figures released last week by Echelon Insights, a Republican-aligned polling firm and consultancy, also had troubling news for Mr Trump. Echelon asked Republican voters nationwide if they would prefer the former president or Ron DeSantis, the Florida governor, as their nominee for president in 2024. Among all Republicans, they found 57% preferred Mr Trump and 32% supported Mr DeSantis. Among Republicans who had heard of both candidates, Mr Trump's lead shrank from 25 points to 16.

None of this means Republicans are done with their former president. A 16-point lead versus Mr DeSantis in the 2024 nomination would translate into a landslide primary victory. Most Republican voters still rate Mr Trump as popular, and he is by far the biggest fund-raiser on the right, able to direct money to loyal candidates and hold huge rallies for them. But attitudes do appear to be changing, if slowly. The seeds are being sown for the Republican Party to move on from Mr Trump. ■

What's for dinner?

Street food

DENVER

Roadkill is now on the menu in Wyoming

A NEW DELICACY is available in Wyoming. It is fresh and cheap—but probably a little gamey. Last month it became legal for Wyomingites to collect roadkill that they accidentally hit themselves, or that they happened upon. Not all animals are fair game. Grizzly bears, some grey wolves and endangered species are off-limits.

Wyoming is not the only state that allows residents to collect roadkill. In fact,

the Cowboy State is late to the party. Around 30 other states have some kind of roadkill-salvage programme, but the idea seems to have taken hold in the West only recently. Montana, Oregon, Idaho and Washington state have all jumped on the bandwagon since 2012. Officials are not sure how many Wyomingites will take part. But Montana's Fish and Wildlife Commission issues roughly 1,000 roadkill-salvage permits each year.

Although some may cringe at the idea of hauling a deer carcass off the road and onto the dinner table (venison, anyone?), the law has several benefits. First, roadkill is a source of fresh meat for poor rural communities who may not otherwise be able to afford it. State officials in Alaska distribute roadkill to charities. PETA, a radical animal-rights group, argues that eating roadkill is healthier and more ethical than buying meat raised for slaughter. Second, allowing residents to harvest roadkill themselves may cut down on the time the creatures spend on the road. In large, sparsely populated states like Wyoming or Montana, it may take days for transport workers to collect a dead animal.

Lastly, roadkill-salvage programmes provide states with important data, says Fraser Shilling, director of the Road Ecology Centre at the University of California, Davis. Wyomingites must report the location of their find, showing officials where crashes with wildlife happen. Wyoming Game and Fish reckons there are 6,000 vehicle collisions with big game each year, accounting for about 15% of all crashes. Roadkill data may help the state figure out where to build highway overpasses or put up "wildlife crossing" warning signs.

Not everyone is licking their lips. Some opponents fret that people will end up eating rancid meat. "It's really the burden of the person who chooses to collect roadkill if they eat it or not," says Sara DiRienzo, of Wyoming Game and Fish. Others worry that the laws will embolden hunters to use the roadkill programme as cover for killing animals they should not.

After almost a decade of failing to pass the bill, Dan Zwonitzer, its frequent sponsor, credits his success to recent support from his right-wing colleagues in the legislature. State lawmakers from staunchly Republican rural Wyoming managed to turn the roadkill-harvest programme into a libertarian *cause célèbre*. "There were some complaints from people who had hit animals or had seen other people hit animals," says Mr Zwonitzer, "and they were like, 'Well, heck, it's dead...I don't want the government telling me I can't take something I accidentally hit if the meat is good.'" He adds that he is not about to collect roadkill himself. But for those so inclined, there are cookbooks offering ways to serve up moose or mule deer. *Bon appétit*. ■

Carjacking

Crime and no punishment

CHICAGO

What a carjacking wave says about American policing

IN A CITY with an average of over two murders a day, the killing of eight-year-old Melissa Ortega in the Little Village neighbourhood of Chicago in late January still caused shock. The girl, who had come to Chicago from Mexico with her family less than a year before, was struck by bullets apparently intended for a young man emerging from a shop near where she and her mother were walking. The 16-year-old boy who has been charged with the murder, Emilio Corripio, was on probation, having pleaded guilty to two charges of carjacking and being in possession of a stolen vehicle.

The murder has stirred up a new wave of angst, not only about juvenile killings but also about carjackings. On February 7th Lori Lightfoot, Chicago's mayor, declared that "there's a very real and pervasive fear of carjacking across our city, our region and our state", as she announced that the city's carjacking task-force, launched in 2020, will expand its operation from 16 hours a day to 24. The spark, she suggested, was young people being out of school during the early stage of the pandemic, and drifting into crime out of boredom.

Most cities and the federal government do not count carjacking separately from other forms of car theft. But statistics gathered by police in Minneapolis, New Orleans, Oakland and Philadelphia, among others, show similar surges to that in Chicago. In Minneapolis, the crime increased more than six-fold from November 2019 to the following year, and has risen further

since. The rise is worrying not only because carjacking is a horrifying crime itself; it may also be contributing to rising murder rates, since many stolen cars go on to be used in drive-by shootings. One in 66 teenagers arrested for carjacking is murdered in a typical year, according to the University of Chicago's Crime Lab.

Ms Lightfoot is not alone in suggesting that closed schools may explain part of it. Jacob Frey, the mayor of Minneapolis, made the same argument in January. "With covid, a lot of the different things that had kept [young people] engaged, for lack of a better word, were shut down," says Tom Dart, the sheriff of Cook County, which contains Chicago and most of its suburbs. Data gathered by the Crime Lab showed that arrests of juveniles for the crime more than doubled from 2019 to 2020, whereas the number of arrests of adults increased by only 7%. Many cars are abandoned fairly quickly after being stolen, suggesting that joyriding may be a motive.

Grand theft thought oh

But other factors are also at play, says Stephanie Kollmann, of Northwestern University. The availability of guns has increased since the pandemic began. Second-hand cars have gone up in price. Other sorts of robberies have become trickier, as people have stayed at home. And although a large number of arrests involve children, that does not necessarily mean that children are the main criminals. According to

Mr Dart, gangs involved in carjacking often use children as getaway drivers, whereas older criminals tend to do the actual assault and use the car later in a crime or try to sell it. "The bad guys know that the penalties for juveniles are pretty close to non-existent," he says, and so they use children to do the riskiest parts of the job.

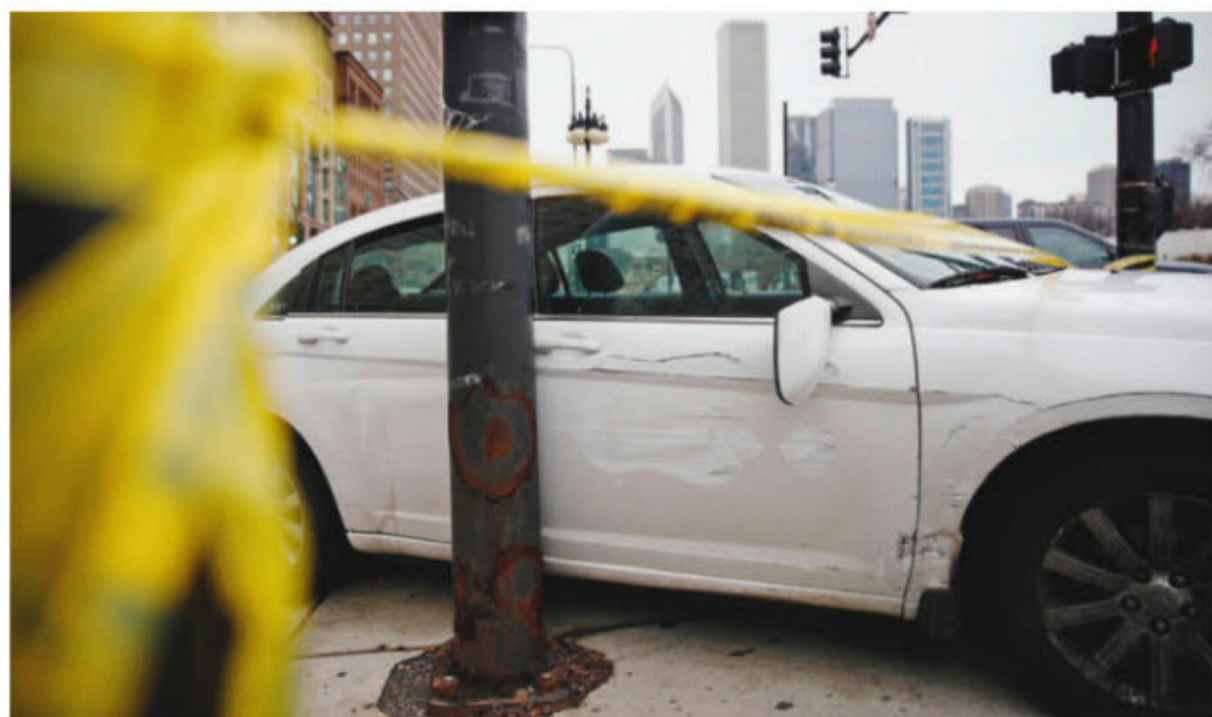
It is, statistically speaking, a fairly easy crime to get away with. Only around 11% of carjackings in Chicago resulted in an arrest in 2020, according to the Crime Lab—far lower than the figures for robbery and burglary. Carjacking is hard to police, says Mr Dart, for various reasons. The victims rarely know the criminals. Now that wearing face-masks is normal, carjackers do not always stand out until the last minute. And proving that someone driving a stolen car was involved in stealing it is difficult. Most of the arrests come from forensic examination of recovered vehicles, rather than from catching criminals in the act.

Mr Dart hopes that technology will help change that. Most cars sold since 2015 come with GPS tracking systems, but it is often difficult for police officers to get access to these quickly. Firms insist on the victims making the request themselves and, even then, some are extremely reluctant to hand out the data.

In January Mr Dart wrote to car manufacturers demanding a more efficient system for police to request tracking information. "We know that these car manufacturers have tools in their box that they could utilise that can really, really help this," he says. The advent of car immobilisers led to a huge decline in car theft a generation ago, he points out. Already, over the past year, greater use of tracking devices has led to an increase in the proportion of cars that are recovered, and a fall in the time to do that. Cars on average are now recovered in under 100 hours, compared with more than 200 in 2020.

Yet better technology will probably not be enough on its own to bring the current wave to an end. Some carjackers are so confident that they will not get caught that they post bragging videos of themselves driving stolen vehicles to their Snapchat pages. To be able to prevent carjackings, the police need to know in advance who is most likely to be involved and how to check on them.

Unfortunately, American police forces tend to be more reactive than proactive. Just 45% of homicides are cleared up in Chicago, a figure not much worse than in many big American cities. And murders usually involve people who know each other. In London 98% of murders were solved in 2021, and unsurprisingly, there were far fewer of them. A serious effort to counter carjacking, in Chicago and elsewhere, will require deep community policing and intelligence-gathering. ■



A sign of the times in the Windy City

Lexington | Messing up, Biden-style

The administration's errors have the president's fingerprints all over them



BORIS JOHNSON turns out to have been running a 10 Downing Street operation resembling himself: chaotic, rule-breaking, fond of a tipple. The prime minister could hardly have done otherwise. Governments invariably reflect the style and character of their leader. The Platonic city was a simulacrum of its ruler's soul. The medieval body politic was synonymous with the king's own body. American administrations, headquartered in a government office that (like Downing Street) is also a family home, are profoundly in this tradition.

George W. Bush's White House was, like the man himself, cheerily upbeat and brutishly anti-intellectual, preferring action to deliberation. Barack Obama's was cerebral, slick and self-regarding. Donald Trump's administration makes the Johnson operation look like a Quaker tea party. Joe Biden's is a huge improvement on it. Its members are, as he is, qualified for their jobs. They do not grift, leak and lie constantly. The ousting this week of Eric Lander, the chief science adviser, for using bullying language was the first hint of White House impropriety in 12 months. Moreover, the decency and professionalism of the president's top team reflect especially well on his character because many of them have worked for him for years. They include Ron Klain, the chief of staff, and Jake Sullivan, the national security adviser. Despite its strengths, however, the administration is turning out to be error-prone in an unerringly consistent fashion.

Take its cardinal blunder, the chaotic withdrawal from Afghanistan last summer. It pointed to three weaknesses that are characteristic of the 79-year-old president. First, like many of his age and long experience, he has a tendency to hew to outdated positions. He justified his decision to withdraw the troops in terms of a reluctance to send more Americans to their deaths, for example, despite none having been killed fighting in Afghanistan for over a year. Second, and related, the president can seem rather detached from reality. Leaked notes of a White House meeting the day before the Taliban swept into Kabul suggest an administration embarrassingly out of touch with the unfolding disaster. It resolved to encourage its local Afghan staff "to begin to register their interest in relocation to the United States".

Third, Mr Biden, who has bridled against smoother-talking

critics for decades, tends to respond to any criticism with prickly defiance. The day after the last American troops withdrew from the wreckage of Kabul airport, leaving behind thousands of terrified Afghan collaborators and vast stocks of military hardware, he deemed the evacuation to have been an "extraordinary success".

Most of the administration's failings follow a similar pattern. Scarred by the inadequacy of the Obama stimulus package in 2009, Mr Biden pushed for a much larger fiscal boost last February despite warnings that it could be inflationary. After inflation duly took off, his administration maintained it was nothing to worry about even though opinion polls suggested most voters thought it was. In its doomed effort to persuade an unpersuadable 25% of the population to get vaccinated against covid-19, as Bill Galston of the Brookings Institution, a think-tank, has noted, it meanwhile neglected the urgently required next wave of covid-19 measures, including testing and therapeutics. Then it denied having done so.

Recalling his Senate career, Mr Biden appeared to believe that the bipartisanship he promised on the campaign trail was achievable. When it proved not to be, his administration pushed a compendium of partisan spending plans which hardly any voter understood. After that failed, it intemperately blasted the moderate Democrat who had killed it, Senator Joe Manchin, reducing its chances of passing any future bill. Again and again, misjudgment has given way to detachment, then unwarranted defiance.

The spat with Mr Manchin also highlighted another characteristic flaw. Though elected as a moderate, Mr Biden has taken great pains to mollify the left. He would do better to pick a fight with it, as Mr Clinton did, and as he himself did during the campaign. He will not do so, it seems, out of an exaggerated fear of causing a Democratic rupture. And this straightforward misreading of the political mood has also spread through the administration. Having been tasked with handling Mr Biden's outreach to progressives during the failed legislative negotiation, Mr Klain, like his boss a sometime moderate, stands accused of capitulating to them.

The president's shortcomings are hardly news. Robert Gates's famous claim that Mr Biden had been wrong on "nearly every major foreign-policy and national-security issue over the past four decades" was so crushing because it rang true. Mr Biden was against George H.W. Bush's successful war with Iraq and for his son's calamitous repeat of it. He did not look like a credible presidential candidate until the alternative was Donald Trump. Democratic insiders nonetheless convinced themselves that the quality of his loyal retainers would help compensate for his weaknesses. That they are instead being dragged down, as Mr Klain illustrates, points to a more structural problem. Most presidents have an adviser or two of sufficient stature to give them unwelcome advice. Leon Panetta tried, at least, to straighten out Mr Clinton; Rahm Emanuel and Mr Biden himself did the same for Mr Obama. Mr Biden, surrounded by staffers and, in Kamala Harris, a struggling vice-president, appears to have no one able to play that role.

To err is to be Biden

It is certainly possible to exaggerate the gravity of his flaws. No administration is perfect. And Mr Biden's troubles are only partly his fault. Most of the price rises were beyond his control. The main problem with his legislative agenda is that hardly any Republican will consider backing it. But the slenderness of his prospects of success has made his failings appear all the more damaging. He had so little margin for error. And yet he is error-prone. It is hard to see how success can come of that. ■



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Brazil and China

A lopsided romance

BRASÍLIA

Despite thriving trade, China's relationship with Brazil is weakening

ON A TRIP to China in 2004 Luiz Inácio Lula da Silva, then president of Brazil, took with him an entourage fit for a rock star: seven cabinet ministers, six state governors and more than 450 businessmen. Relationships were established and deals hashed out. Over the next five years China would become Brazil's most important economic partner. By 2019 annual trade between the countries was worth \$100bn.

The first state visit by Jair Bolsonaro, the current president, was far more muted. Mr Bolsonaro had spent much of his time on the campaign trail in 2018 railing against China, which he accused of wanting to “buy Brazil”. When he visited in 2019 he brought along four ministers, but no senior economic advisers. Although he spoke of how the countries were “completely aligned”, the trip was overshadowed by talk of whether or not he would allow Huawei, a Chinese telecoms firm, to build some of the 5G network in Brazil.

The relationship between Brazil and China has never been straightforward, but under Mr Bolsonaro it has never been worse. Despite his talk of alignment in 2019, he has continued to take swipes

at China, as have members of his family, several of whom are in politics. Early in the pandemic his son, Eduardo, spoke of the “China virus”. Last year, without naming China, the president mused that covid-19 could be “chemical warfare”. China, for its part, may be keen to trade with Brazil, but it is increasingly wary of investing in the country—and in the rest of Latin America.

Mr Bolsonaro's antagonism has not

gone unnoticed by Chinese officials. In 2020 Li Yang, China's consul general in Rio de Janeiro, wrote a comment piece for *O Globo*, a newspaper, in which he responded to Eduardo's comments with unusual ferocity. The boss of Sinovac Biotech, a Chinese firm which provided covid vaccines to Brazil, was quoted by Reuters as telling diplomats that the president's remarks were preventing a “fluid and positive” relationship between the two countries.

Sometimes China likes to remind Brazil of its power. Late last year Brazilian beef exports took a hit when China imposed a three-month ban on them after two cases of atypical mad-cow disease were found in different states. The value of beef exports slumped; the ban cost around \$2bn in sales. Many thought the embargo was unusually long.

The row over beef notwithstanding, trade between Brazil and China has flourished, even through the pandemic. In 2021 China bought over 30% of Brazil's physical exports, up from less than 20% five years earlier. Most of this was soybeans, crude oil and iron ore, but shipments of meat and other higher-value goods have also grown in recent years, particularly since the trade war between the United States and China took off in 2017 (see chart 1).

Beefs with Bolsonaro

But other economic ties between Brazil and China appear to be weakening. China's investment in Brazil peaked in 2010, according to the China-Brazil Business Council (CEBC) (see chart 2 on next page). ▶▶



► In that year China invested \$13bn in 12 projects. The CEBC estimates that last year it invested only around \$4bn.

This hints at a wider trend. Although the presidents of Argentina and Ecuador recently went to Beijing in order to boost economic ties with China, economic agreements between China and Latin America have waned in recent years. In an address to the Community of Latin American and Caribbean States (CELAC), a regional organisation, in 2015, Xi Jinping, China's president, pledged \$250bn in investment in Latin America by 2025. But between 2015 and 2020 Chinese firms invested only \$76bn in the region, according to researchers at Boston University. In December, at another meeting with CELAC, Mr Xi did not pledge any further investment. (Brazil did not attend, as Mr Bolsonaro had pulled out of CELAC in 2020.)

Brazil, in particular, makes foreign investment hard. The country's rules and regulations are prodigious and ever-changing. Its currency, the real, is volatile; its labour laws are complicated and its tax system badly needs reform. Corruption and uncertainty over economic policy do not help. "If a Chinese company can survive in Brazil, it can do so anywhere," says Qu Yuhui, a Chinese diplomat who was based in Brazil until recently.

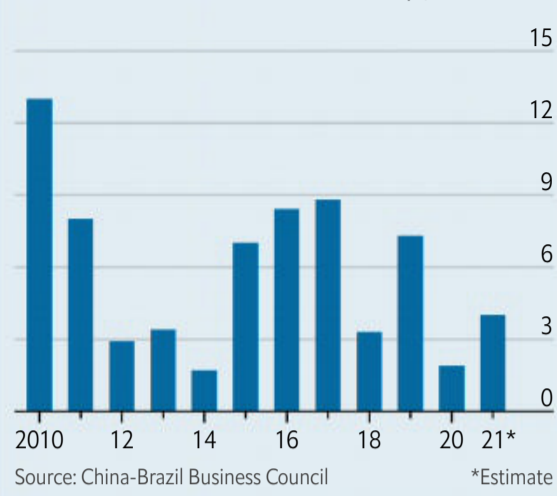
Chinese investors focus on what they perceive as safe bets. Nearly half of the money they put into Brazil before 2020 went into electricity generation, which has the benefit of long-term contracts. Several Chinese power firms have established themselves in the country. Brazil benefits from Chinese expertise: both countries have ultra-high-voltage transmission lines that stretch thousands of kilometres.

The power industry, though, also generates challenges. Last year the CEO of State Grid Brazil, a subsidiary of one of the biggest Chinese state-owned electricity firms, described the difficulty of acquiring land for a huge transmission line between the Belo Monte dam in Pará, in the north, and the consumers of south-eastern Brazil. The effort involved negotiating individually with "3,337 property owners" and obtaining "204 inter-regional licences, including [for] rivers, lines, highways, railways, oil ducts, small airports, etc".

Brazil ought to be doing more to lure foreign investment, yet its efforts tend to be sporadic, driven more by state-level politicians than by the federal government. The state of São Paulo, for example, set up a trade office in Shanghai in 2019. João Doria, the governor of São Paulo, credits it with helping him strike a deal with Sinovac for covid vaccines. But few Brazilian companies have set up offices in China, or even ventured to visit, says Tatiana Lacerda Prazeres, a trade consultant in China, and a former foreign-trade secretary of Brazil.

Intermittent interest

Flow of Chinese investment to Brazil, \$bn



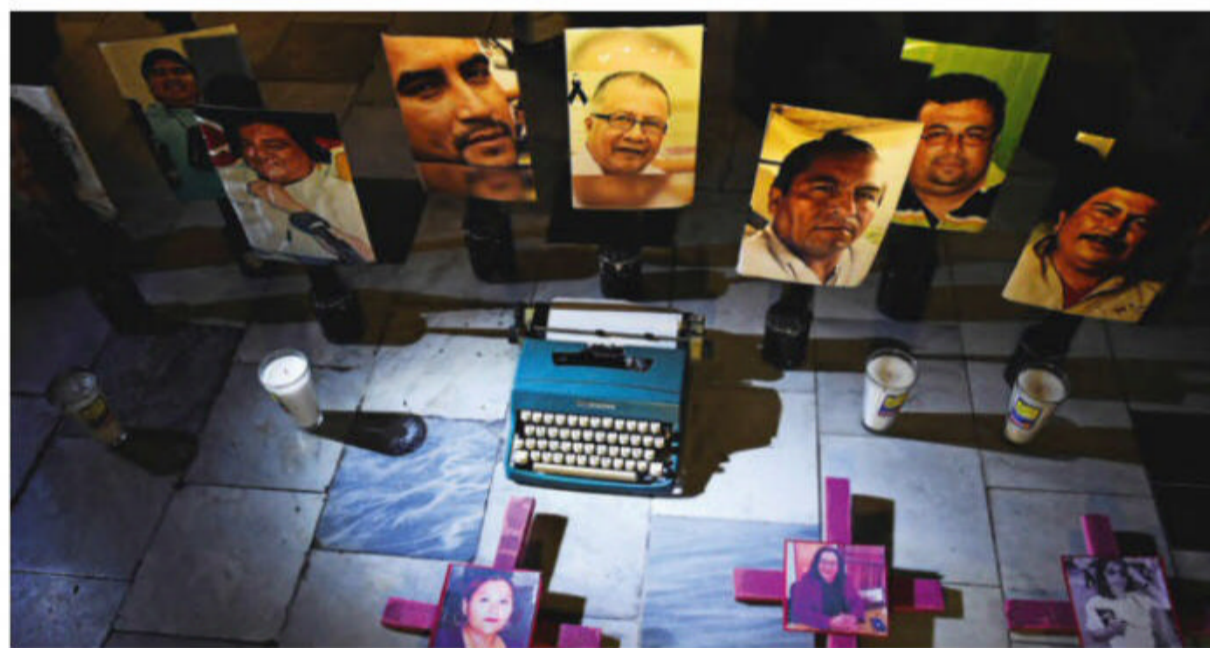
"There is a perception among some top Brazilian officials, and even some businesses, that China is more dependent on Brazil than vice versa," she says.

China's large appetite for Brazilian commodities reinforces that attitude. But the view from China is quite different. Compared with other regions, Latin America has always been China's "lowest priori-

ty", in terms of diplomacy and investment, says Margaret Myers of the Inter-American Dialogue, an American think-tank. Asia and Africa remain more important.

Moreover, China's appetites may be changing. Its drive towards "basic self-sufficiency" in grain, as laid out in its latest five-year-plan, includes an effort to boost soyabean production. Scepticism about the plan abounds. But even a small decrease in Chinese purchases would hurt Brazil, which sends 70% of its soyabean exports to China. If demand for new housing in Chinese cities were to drop, as some predict, that would diminish demand for Brazilian iron ore and other raw materials. (Though a slowdown in construction at home might also push Chinese infrastructure firms to seek opportunities abroad.)

Brazil's presidential election in October will help determine the future of the relationship. Lula is mulling a run. He tops Mr Bolsonaro by a wide margin in most polls. If he were to become president again, there is little doubt that he would try to mend ties. Wooing Chinese investors, though, may be harder the second time around. ■



Mexico

A deadly profession

MEXICO CITY

Four journalists have been killed in the space of a month

IT WAS LUNCHTIME on January 31st when Roberto Toledo, a 55-year-old video journalist, opened the door. He was shot and later died of his wounds. He was the fourth member of the press to be murdered in Mexico in just one month.

Mexico has long been a deadly place for journalists. Reporters Without Borders, a watchdog, reckons 47 have been killed over the past five years, the same number as in

Afghanistan. More reporters are missing—presumed kidnapped—in Mexico than anywhere else in the world. Even so, the events of recent weeks have shocked many.

The increase in killings is partly because of an overall rise in violence, reckons Jan-Albert Hootsen of the Committee to Protect Journalists, an advocacy group. Over the past five years more than 30,000 people have been murdered annually, a fig- ▶▶

► ure which increased up until 2020. A culture of impunity does not help: over 90% of murders go unsolved. Few reckon Mexico's current strategy for dealing with drug gangs, known as "hugs not bullets", is working. Threats to journalists also come from corrupt politicians and the police.

Under the administration of President Andrés Manuel López Obrador, more journalists have been enrolled in a programme which offers bulletproof vests and police protection. But it lacks cash. Mr Hootsen has documented cases of calls going unanswered and paperwork going missing,

with fatal consequences. Lourdes Maldonado, a journalist who was enrolled in the programme, was shot dead in Tijuana on January 23rd. In 2019 she had told the president that she feared for her life. A video of the conversation has now gone viral.

The president has pledged to investigate the latest spate of killings. But he does not always project respect and concern for journalists. Once a week he holds forth at a press conference about "Who's who in this week's lies"—in essence, a list of journalists who have annoyed him.

Journalists at smaller outlets are most

at risk. "We can't have a police officer behind us at all times, but they need a strategy to make us feel safe," says Jorge Manzo, who works for a local paper. He says he relies for security on "my mother's prayers" and on letting his friends know beforehand of his movements.

Outrage is growing. On January 25th hundreds of people held vigils across the country. But it is unlikely that anything will change unless the general cycle of violence and impunity is broken. "At least today I know that if I am killed people will hear about it," says Mr Manzo. ■

Bello The week that changed a culture



Brazil's "cannibal" art and its disputed legacy

A HUNDRED YEARS ago this weekend, a group of young artists and writers organised what they called the Modern Art Week in the new and grandiose municipal theatre in São Paulo. In fact, it lasted only for three evenings. It included a show of modernist painting, lectures, poetry recitals and music by Heitor Villa-Lobos, who was to become Brazil's best-known composer. It has since come to be seen as the founding moment of modern Brazilian artistic culture. Its centenary has brought both commemoration and some criticism. It comes as the cultural tradition it represents is under assault from Jair Bolsonaro, Brazil's populist president.

The event took place in São Paulo, then a fast-industrialising frontier city that was starting to rival Rio de Janeiro, the capital at the time, where the staid cultural establishment was based. The Brazilian modernists had their contradictions. The would-be revolutionaries were also dandies, the scions of the coffee-growing aristocracy, and they were close to the political oligarchy that ran São Paulo and Brazil. Even so, they were disrupters.

The week "was a declaration of cultural independence, that we are not simply a clumsy copy of something else", says Eduardo Giannetti, a Brazilian philosopher. The modernists' aims were later formalised in a Manifesto Antropófago (Cannibal Manifesto), written by one of the poets, Oswald de Andrade. This sought to address the dilemma of how to be a Brazilian modern artist when modernism was a European import. The answer: "Absorption of the sacred enemy. To transform him into a totem." In other words, Brazilians would not simply reproduce other models but digest them and turn them into something that was

their own. The group embraced a national identity that, at least in theory, included black and indigenous Brazilians and their beliefs, and tropical fauna and flora.

It was cultural nationalism, but of an open-minded, cosmopolitan and non-xenophobic kind. That was important. Across Latin America, modernist writers and artists were forging new national identities. As the innovative 1920s degenerated into the ideological conflicts of the 1930s, some would embrace communism and others creole fascism in its many variants. The Brazilian modernists would radicalise politically and be co-opted, too, by Getúlio Vargas, Brazil's nation-builder, who ruled for much of 1930 to 1954, by turns an autocrat and a democrat.

Yet the Brazilian modernist tradition proved extraordinarily fertile. It encompassed Tarsila do Amaral, whose painting mixed cubism, surrealism and Brazilian myths. Oscar Niemeyer, an architect, took Le Corbusier's functional rectangles and added Brazilian curves. The 1950s and 1960s brought *bossa nova*, a fusion of American jazz and Brazilian samba, and

cinema nova, which drew on the techniques of Italian neo-realist film to cast a light on Brazil's socio-political backwardness. A loose group of conceptual poets and artists, including Hélio Oiticica and Lygia Clark, deployed abstraction and performance art. Caetano Veloso and Gilberto Gil drew on British pop to create protest music challenging the military dictatorship that took power in 1964.

Some in Brazil think the week in 1922 is overhyped. Ruy Castro, a writer who perhaps not coincidentally lives in Rio, claims it was the dictatorship that, on the event's 50th anniversary, institutionalised it as a national legend. Some black and indigenous artists claim that it has little to say to them. Yet many Brazilians still see it as an inspiration. In 50 years' time "I hope it will be remembered as an episode in the transformation of Brazil into a modern country," says Valéria Piccoli, the chief curator of São Paulo's Pinacoteca art museum.

For now, Brazilian artistic culture is on the defensive. Mr Bolsonaro's government is one of "cultural asphyxia", argues Ms Piccoli. The culture secretariat is trying to impose "a conservative, religious, reductionist vision", she complains. One of the seven people in three years who have served as culture secretary proclaimed, "Brazilian art in the next decade will be heroic and national." The incumbent, a soap-opera actor, has removed public funding from places that require vaccination for entry. And the government has slashed tax breaks for private cultural sponsorship, which has cut the Pinacoteca's budget by 20%. Yet despite Mr Bolsonaro's reactionary harumphing, Brazilian visual art and music has become part of the global mainstream. That is perhaps the best tribute to the pioneers of 1922.



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Democracy in India

The ailing body politic

DELHI

Elections aside, the main elements of India's democracy are in poor health

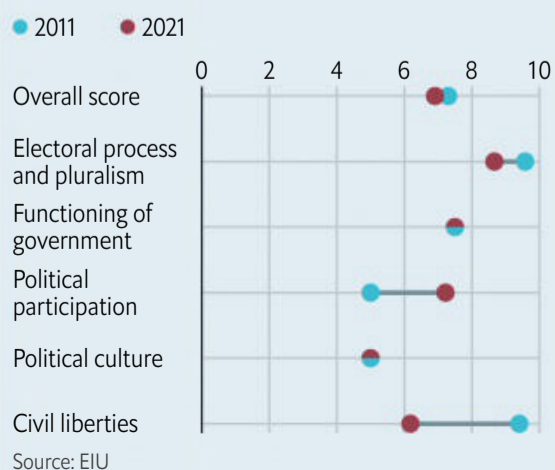
IN THE NEXT four weeks some 175m Indians will vote in elections across five states with a combined population approaching 300m. Their legislatures will determine the make-up of the Rajya Sabha, the upper house of Parliament, and thus the selection of the president. The outcome in Uttar Pradesh, India's most populous state, could well shake Narendra Modi, India's most domineering prime minister in decades. As an advertisement for democracy, India's periodic mobilisation of millions of polling officers to provide a say for hundreds of millions of voters is difficult to beat.

But while the face of Indian democracy, in the form of elections, looks healthy, the rest of the body is not. From courts and police to politicians and parties to campaign finance and the mechanics of legislation, the bones, sinews and organs of Indian democracy look alarmingly unwell. According to the Democracy Index produced by the Economist Intelligence Unit, our sister company, over the past decade India has slipped or stayed still on every measure except political participation (see chart 1).

An x-ray of India's Parliament reveals several missing or half-functioning vital systems. The number of days per year that the national Parliament actually meets has fallen from more than 100 in the 1950s to 66 in the 2014-19 term and further still during covid-19. America's Congress, by comparison, is typically in session for more than 160 days a year.

Vital statistics

India, Democracy Index score, 10=maximum



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Many laws do still get passed, but they receive less and less scrutiny. The proportion of bills referred to standing committees in the lower house, the Lok Sabha, has dropped from around 60-70% under the previous government to 27% in Mr Modi's first term and just 13% in his second. Attendance records in committee meetings in both houses for the past three years reveal a meagre average of 46%.

Of the 15 bills rushed into law during the monsoon session last year, not one had been deliberated in committee, and many were passed by perfunctory voice votes. This was partly because of opposition walkouts and noisy protests. But Mr Modi's Bharatiya Janata Party (BJP) similarly rammed through a package of agriculture-market reforms in 2020. The result: a 14-month mass revolt by farmers, ending only when the laws were scrapped.

State legislatures are no better. For all the fuss—and immense expense—over this month's elections to the state assembly of Uttar Pradesh, the fact is that the body met for only 17 days last year and a mere 13 in 2020. This compares with more than 80 days in the 1950s.

It is not just the BJP at fault; the legislature in Uttar Pradesh met on just 24 days in the year before the party took power. Congress-ruled Punjab, whose lawmakers met for a stately 11 days, was last year's lowest scorer. And while its rivals bemoan the BJP's bullying of the national Parliament, the opposition-dominated assembly of the state of Maharashtra attempted to bar 12 ▶▶

► unruly BJP deputies from the building for a year, until the Supreme Court intervened.

So what do India's 5,000 elected state and national legislators do, if they spend so little time legislating? Many are dedicated to serving their constituents. But many appear more devoted to winning back what they spent getting voted in, and more. According to the Association for Democratic Reforms, a research group, a record 43% of MPs who won seats in the 2019 general election had been charged with a crime, with 29% booked for grave offences such as rape and murder. This represented a 109% increase on the cohort of ten years earlier.

Crime seems to pay: analysis shows that a candidate with a criminal record is three times more likely to win than one without. Similarly, one with declared assets of more than 50m rupees (\$670,000) is six times more likely to succeed than one with less. Term after term, compulsory declarations of assets reveal suspiciously huge rises in the wealth of incumbents.

If riches and ruthlessness are crucial for nabbing votes at street level, they are also needed at the top. Here, the BJP must take a bow, having struck a gusher with an ingenious mechanism called electoral bonds. Introduced in 2018, ostensibly as a reform to weed out illicit cash, the scheme allows for unlimited, opaque financing of political parties. A reporter would be unable, for example, to trace links between a billionaire whose fortune spiked after securing lucrative deals from the government, and his or her donations to enabling politicians. The sole indicator of political funding that is now disclosed is the total amount received (see chart 2). Not surprisingly, the ruling party is gaining the lion's share. In 2020 the BJP's declared assets of \$655m outweighed those of the next 51 political parties combined. More striking, its stash rose by 443% in just five years.

In most democracies, courts would have tossed out electoral bonds as a flagrant obstruction of voters' right to know who was funding their political parties. But in another sign of creaking democratic

infrastructure, India's Supreme Court has dragged out hearings on the issue indefinitely. Nor have the top judges bothered to take up other obvious challenges to normal democratic functions, such as the stripping of statehood from and bifurcation of the erstwhile state of Jammu and Kashmir in 2019. Lower courts have sometimes been more vigilant, but not always.

Perhaps not surprisingly, India's democratic drift is reflected in its diplomacy. Despite much backslapping with democratic leaders, and membership in groups such as the Quad, a club of big Indo-Pacific countries worried by an increasingly belligerent China, India often declines to join other democracies when it comes to, for example, condemning the recent military coup in next-door Myanmar or the threats

by Russia against Ukraine and other neighbouring democracies.

According to the count kept by America's State Department of voting at the UN General Assembly, over the past five years India has matched America's own votes just 28% of the time. That compares to 23% for China, 30% for Russia and over 50% for more stalwart democratic allies. This "coincidence ratio" is hardly a gold standard for democracy: America annoys other countries for a range of reasons. But it seems to reflect the down-on-democracy views of many Indians, who recently told pollsters that they would by a large margin be happy to abolish Parliament and accept army rule, more than it does the constitution that has for seven decades preserved their country from just such a fate. ■

Street hawkers in Bangkok

Sidewalk ballet

BANGKOK

The city is trying to bring some order to its pavements

SNAILS AND fermented fish, bamboo shavings and cured buffalo skin: these are among the delights that Wanee Junrut has laid out on trays at her stall in Lao Market in Bangkok, Thailand's capital, every morning for the past 28 years. Hawking is the family business: Ms Wanee's mother tended the stall before her, and her children are also in the trade. They may soon need to find other work, however. The local government is threatening to demolish their stall.

When the Thai army seized power in 2014, it vowed to bring order to the streets of Bangkok. Tens of thousands of hawkers ply their trade on the city's roads, selling not just food but everything from clothing to cleaning products. Bangkok's local government reckons they are a nuisance, responsible for all manner of ills including bad hygiene and obstructing traffic. In 2014 it launched a campaign called "returning walkways to the public" and started evicting hawkers, licence or no licence. It claims to have since closed nearly 75% of informal markets and shooed away some 12,000 vendors, nearly 60% of the total.

Hawkers are "a health-and-safety issue", says Ton Panon, a property developer. He lists a litany of complaints: they force pedestrians onto the road; they do not clean up after themselves; they pour cooking oil down the drains, clogging sewers and exacerbating flooding (vendors pooh-pooh these claims). He does not want them banned from the city—"They are a way of life here"—but wishes they could be relocated to designated food courts and markets. Many Bang-



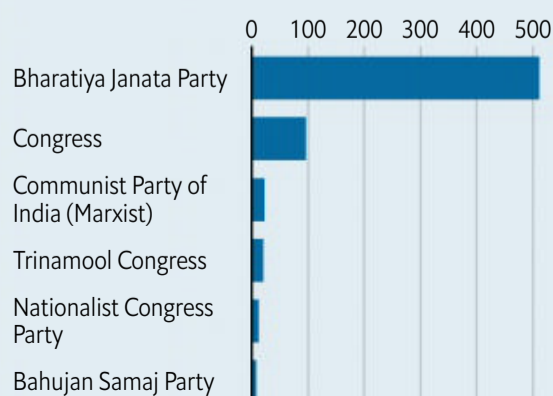
Quit stalling

kokians share Mr Ton's frustrations. Facebook groups such as ThailandFootpath, which chronicle broken and blocked pavements, have hundreds of thousands of members.

Vendors and skint backpackers will suffer if the stalls vanish. So, too, will ordinary Bangkokians. The city's residents get nearly half of their weekly meals from street vendors, suggests one survey. Many stalls cater to people with low incomes. Besides, banishing hawking from pavements will not magically render them safe and passable: Bangkok's motorcyclists seem convinced that they are an extension of the carriageway.

Cash cow

India, national political parties' declared income 2019-20, \$m



Source: Association of Democratic Reforms

Property prices in New Zealand

Quarter-acre heartbreaker

SYDNEY

The government is scrambling to cool an overheated housing market

IF THERE IS one subject that animates New Zealanders more than rugby or pandemic restrictions, it is the cost of housing. Home-ownership has been a national obsession ever since the British, a people notoriously obsessed with claiming title to piles of bricks, first colonised the Pacific islands. Emigrants left draughty terraced homes for the “Kiwi dream” of a “quarter-acre block”. That fantasy has become increasingly difficult to realise. The average home in Auckland, the commercial capital, now costs NZ\$1.4m (\$935,000), 35 times the median income.

Auckland is at the centre of a house-price boom that is roiling the country. Low interest rates and lashings of fiscal stimulus have sent prices soaring everywhere. But even by those standards New Zealand’s recent gains look stratospheric. Last year its house prices rose by more than a quarter, according to CoreLogic, a business which tracks them. Relative to incomes, New Zealand has the world’s sixth-most expensive houses. House prices are “unsustainable”, warns the central bank, which acted in November to restrict lending to people with smaller deposits.

This is compounding a housing crisis which has worried Kiwis for decades. New Zealand is “a housing market with an economy attached”, says Shamubeel Eaqub, an independent economist. Adjusted for inflation, its house prices rose by 256% between 2000 and mid-2021, compared with 64% in America and 110% in Britain. A chronic shortage of affordable homes has forced families to sleep in tents and cars. “The situation in New Zealand is dire,” says Matthew, a 52-year-old who does not have a home (he declined to use his surname).

This is bad news for the prime minister, Jacinda Ardern, and her Labour party. When she was first elected in 2017 she made lofty pledges to give Kiwis cheap houses. “We can make home ownership possible again,” she promised in a speech which has aged like milk. Since then, the number of applicants waiting for public housing has more than quadrupled to over 24,000. More than half of those are Maori, the country’s indigenous people, who make up just 17% of its population, says Ronji Tanielu of the Salvation Army, a Christian charity. Last year New Zealand’s Human Rights Commission launched an inquiry into the “right to a decent home”, piling pressure on Ms Ardern.

Her government has not always helped itself. It promised in 2017 to erect 100,000 affordable houses through a scheme called KiwiBuild. By last May it had slapped up only 1,000. The target has been abandoned.

An attempt to house rough sleepers has also backfired. The government has paid motel owners to convert their rooms into “emergency accommodation”. As a result, says Mr Tanielu, “They are shoving single mums next to gang members and drug dealers.” Matthew notes, “There are a lot of people who like the situation. If you want to buy meth, go into emergency housing. But if that is not your interest, it’s a dangerous situation.”

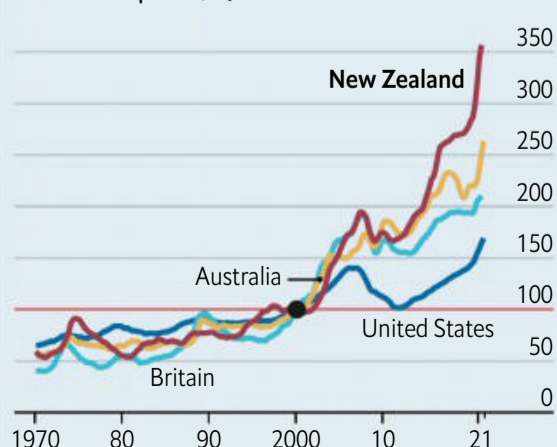
Last year he was shuffled between 29 motels and boarding houses. Nine months later, he decided it was a more miserable experience than being homeless. He left to live in a park where at least there was a beach, a shower and a barbecue, he says. He has since found a place through Life-wise, a charity.

Ms Ardern argues that the government is “pulling every lever we have available to us”. It has introduced measures to curb speculation and boost supply. It has closed tax loopholes and tightened rules on taxing investors who flip their properties within ten years, up from five. It is funding councils to build infrastructure for new developments and has constructed more than 6,500 public-housing units. In December it passed radical reforms to planning laws, which will free up land and allow owners to build easily in their backyards. No other post-war government has done so much to reform the housing market, says Mr Eaqub, “But these are things that will take years to come to fruition.”

The moves have not satisfied voters. More adults in New Zealand now rent than own their houses, says Mr Eaqub. Since the country has mostly been free of covid-19, the expense of housing is Kiwis’ biggest gripe: over half of them now list it as their top concern, according to Ipsos, a pollster. Their faith in Ms Ardern is sliding. That is the danger of promising miracles. ■

Through the roof

Real house prices, Q1 2000=100



Source: OECD

The Philippine presidential election

Blood feuds

MANILA

An absolute majority may not be enough for Ferdinand Marcos Jr to win

MISSING FROM the official start of campaigning, on February 8th, were the song-and-dance performances that usually signal the launch of Philippine elections. Missing too was any sense of suspense. Polls put Ferdinand “Bongbong” Marcos so far ahead of other candidates for president that he seems certain to win the vote on May 9th. Opinion surveys in December and January both gave him well over half the total vote. Why waste good money on razzmatazz?

Although few Filipinos really believe that suitability for political office runs in the blood, many certainly vote as if it does. Two of the three most recent presidents, Benigno Aquino and Gloria Arroyo, were the offspring of previous ones. Rodrigo Duterte, the foul-mouthed incumbent, is an exception. The popularity of Mr Marcos, the son of the late president of the same name, is a return to form. He is particularly attractive to younger voters, who seem either unconcerned about or unaware of the record of the older Marcos, a dictator who ruled for over two decades and was deposed only after a popular uprising in 1986. The younger Mr Marcos tries to maintain his appeal by avoiding the subject of his father’s regime all together.

Yet the prospect of another Marcos in Malacañang, as the presidential palace is known, enrages many other voters who seem to believe that unsuitability for political office also runs in the blood. Detectives are investigating one suspected threat to kill Mr Marcos. More lawful efforts to keep him out of the presidential palace are under way, too. Two sets of petitions to stop him contesting have been submitted to the Commission on Elections. They argue that Mr Marcos’s record as a convicted criminal—he was found guilty of failing to submit tax returns when he was a provincial governor—disqualifies him from public office.

A committee of the commission rejected one set of petitions. The petitioners have appealed to the commission as a whole. A separate committee disbanded in disarray before ruling on the other set. That committee is due to be reformed with new members. Whatever rulings are eventually handed down, either the petitioners or Mr Marcos will appeal against them in the Supreme Court.

In the meantime, the commission has started printing ballot forms, with Mr Mar-



Fans, Ferdinand

► cos's name on them. The Philippines, like America, holds elections for several levels of government on a single day. Various versions of the machine-readable form must serve the purposes of congressional and local elections as well as the presidential election. That makes them so long and complicated that they must be printed months in advance, before the matter of Mr Marcos's eligibility can be resolved. If he is disqualified before election day, voters may choose to mark their ballots in his favour anyway. And if Mr Marcos wins anything like the number of votes suggested by opinion surveys, as seems plausible, none would count.

The laws are not clear, but in such circumstances the presidency probably would not go to the candidate with the next-highest number of votes. Instead, the newly elected vice-president, who runs independently of the president, is likely to be first in line. Sara Duterte—another presidential progeny—is widely expected to win that election. Mr Marcos has said he would accept her as his substitute. Such an outcome would also be acceptable to Ms Duterte's father, who at the outset wanted her to run for the highest office. (Mr Duterte, who is limited to a single term by the constitution and has declared himself neutral in the election, appointed all the sitting members of the election commission.)

The constitution and many laws were drafted with the specific intention of preventing the emergence of another regime as widely loathed as the elder Marcos's. Paradoxically, their workings now seem geared to frustrating popular sentiment by preventing his son from following in his footsteps as a democratically elected president. If the Supreme Court does disqualify him, another of the country's periodic bouts of instability is in the offing. ■

South Korean exports

Explosive growth

SEOUL

The country wants to join the ranks of the world's biggest arms-dealers

MOON JAE-IN began his five-year tenure as South Korea's president in 2017 with a pledge to act as his country's chief peacemaker, repairing relations with North Korea and ending the decades-long state of war on the Korean peninsula. Having failed to achieve that objective, Mr Moon looks likely to end his tenure—elections are due next month—with a reputation as his country's chief arms dealer.

Last month Mr Moon returned from a trip to the Middle East with a \$3.5bn contract to sell a home-grown missile system to the United Arab Emirates (UAE), the biggest deal in the history of South Korea's defence industry. As a belated outcome of the same trip a \$1.7bn agreement to sell an artillery system to Egypt was completed earlier this month, after a decade of negotiations. Mr Moon also signed a deal worth \$700m to sell the same guns (pictured) to Australia when he visited Canberra, its capital, in December.

The flurry of dealmaking is proof of South Korea's ambition to join the ranks of the world's big arms exporters. The country has long sought to capitalise on its substantial domestic spending on arms development by finding foreign customers for its weapons. The strategy has paid dividends. South Korea's arms exports have increased more than sixfold since 2005; in 2021 they exceeded imports for the first time. The government sees the defence in-

dustry as a big source of future growth.

South Korea's potential as an arms exporter results from its enduring confrontation with its northern neighbour. The need to keep up its guard against North Korea has meant that, despite its middling size, South Korea has long been one of the world's biggest spenders on troops and armaments. In 2020 it ranked 10th in the world for military spending, according to the Stockholm International Peace Research Institute, a think-tank. That year defence accounted for 12.4% of the annual government budget and 2.8% of GDP, more than in Britain (at 2.2%) and about the same as in India (2.9%).

The growing discord between America and China and uncertainties about America's commitment to its global alliances have only confirmed the importance of greater self-sufficiency in matters of security. Under Mr Moon South Korea has boosted spending on acquiring and developing new weapons systems in an effort to modernise the armed forces, while reducing the proportion of the defence budget spent on salaries and maintenance. In December Mr Moon said South Korea should be "proud" of its military prowess and growing defence exports.

As home-grown military technology has improved, exporting it has become both more plausible and more lucrative, says Sheen Seong-ho of Seoul National ►►



Coming soon to a theatre of war near you

► University. Many domestic weapons systems are now of similar quality to those produced by America, South Korea's main ally, with which it has many technology-sharing arrangements. But they remain cheaper, attracting customers in emerging markets. More than half of exports are sold to other Asian countries, notably the Philippines and Thailand.

Exporting more also makes sense for South Korean defence companies, which have long catered only to their own armed forces. Producing larger quantities should lower production costs per unit and help

defray the expense of development.

South Korea's emerging role as an arms-export powerhouse has other benefits for the government, too. Defence deals often come with bilateral security agreements and technology co-operation, making them a useful tool of foreign policy. The deal with Egypt came with a promise of mutual military co-operation in the future.

Yet the new export industry also carries certain risks. The government is not particularly discriminating in its customers. It suspended weapons sales to Myanmar only several weeks after last year's coup,

following a public outcry. Egypt, Thailand and the UAE are no beacons of liberal democracy. But with the exception of Myanmar, public criticism of the deals has so far ranged from muted to non-existent.

Simpler worries are emerging, too. A fifth of the cost of an indigenously developed fighter jet will supposedly be paid for by Indonesia under a partnership agreement. But Indonesia is said to be behind on its payments. It remains unclear how much of the promised contribution South Korea will actually receive. Not every export deal is a good one. ■

Banyan Of the ages

Kishida Fumio's "new capitalism" is many things, but it is not new

THE PHRASE "new capitalism" may not arouse as much passion as "down with capitalism", but it would at the very least seem to promise—the clue is in the name—a fresh approach. When Kishida Fumio first used the phrase last year in his campaign to lead Japan's ruling Liberal Democratic Party (LDP), and thus the country, its meaning was still unclear. "Ask me in a few months—we're supposed to figure it out," one of the members of Mr Kishida's New Capitalism Realisation Council replied when Banyan made discreet inquiries in October.

Mr Kishida has since sought to clarify his signature initiative. He cannot be accused of a lack of ambition: "We want to lead the world's economic thinking with a 'new capitalism' originating in Japan," he told a conference in December. Yet that thinking remains a mishmash of old ideas and empty buzzwords. Mr Kishida's list of plans under the banner includes raising wages, fostering start-ups, revitalising rural regions and reducing carbon emissions. All sensible ideas, but hardly unfamiliar.

Take wages, which have been stagnant for decades. Mr Kishida is right to say that raising them could help invigorate the economy. There are many novel things he might try, starting with sharply boosting the average minimum wage, which is low by rich-country standards, at ¥930 (\$8) per hour. He could enforce Japan's equal-pay-for-equal-work laws. Or he might make it easier for workers to move between firms. Instead, Mr Kishida has offered some public-sector employees a one-off raise and hectored private firms to do the same, rewarding with subsidies those that comply. Abe Shinzo, prime minister from 2012 to 2020, employed similar tools to little avail.

Another chronic problem is Japan's



shrinking pool of labour. A new approach might involve letting in more foreign workers. Instead, the prime minister has stubbornly stuck to strict border policies that have kept out almost all new arrivals since the pandemic started, drawing comparisons to the *sakoku* ("closed country") period of 1633-1853, when Japan largely shut itself off from the world. New thinking on climate change might include taxing carbon emissions and ditching coal. Mr Kishida has resisted both steps in deference to industry.

Old ideas animate his plans for development, too. Mr Kishida's "digital garden-city nation", a collection of investments in digital infrastructure to revive rural areas, is an update of the "garden city" concept that Ohira Masayoshi, a former prime minister, advocated in the 1970s. To help realise his plans, he will rely on massive fiscal stimulus and relatively loose monetary policy—or what Mr Abe called the first two of the three arrows of his "Abenomics".

The biggest changes under Mr Kishida have been rhetorical. He intones against

"neoliberalism"—shorthand in Japan for market-friendly reforms to encourage competition—for worsening inequality and poverty. The word "reform" is virtually absent from Mr Kishida's lexicon. Whereas Mr Abe began his term by promising more shareholder-friendly corporate governance, the new prime minister talks about the importance of other stakeholders in businesses, such as workers and customers, evoking the Edo-era merchant philosophy of *sanpo-yoshi*, or "three-way good" for buyers, sellers and society.

Mr Kishida's rhetoric reveals a misdiagnosis of his country's ills. Japan is hardly a neoliberal bastion. It could be more equal: based on market incomes, its Gini coefficient, a measure of this, is slightly worse than the average of the OECD, a rich-country club. But after tax and transfers, it has barely budged since the 1990s. Growing inequality is less of a problem than a lack of dynamism.

If there is coherence in Mr Kishida's "new capitalism", it is as canny domestic politics. Preaching against the evils of neoliberalism deprives Japan's opposition of a useful talking point. Sniping at Abenomics allows Mr Kishida to differentiate himself from his still-influential predecessor. Hyper-cautious covid-19 policies, however damaging to Japan's soft power, insulate Mr Kishida from the accusations of indifference that helped fell Suga Yoshihide, who followed Mr Abe. Voters seem happy: Mr Kishida's approval ratings have stayed near 60%.

Barring a major pandemic-related setback, that puts him in a good position to sail through upper-house elections due this summer. After that, Mr Kishida will have three years before he needs to face voters again. Plenty of time, then, to come up with something new.



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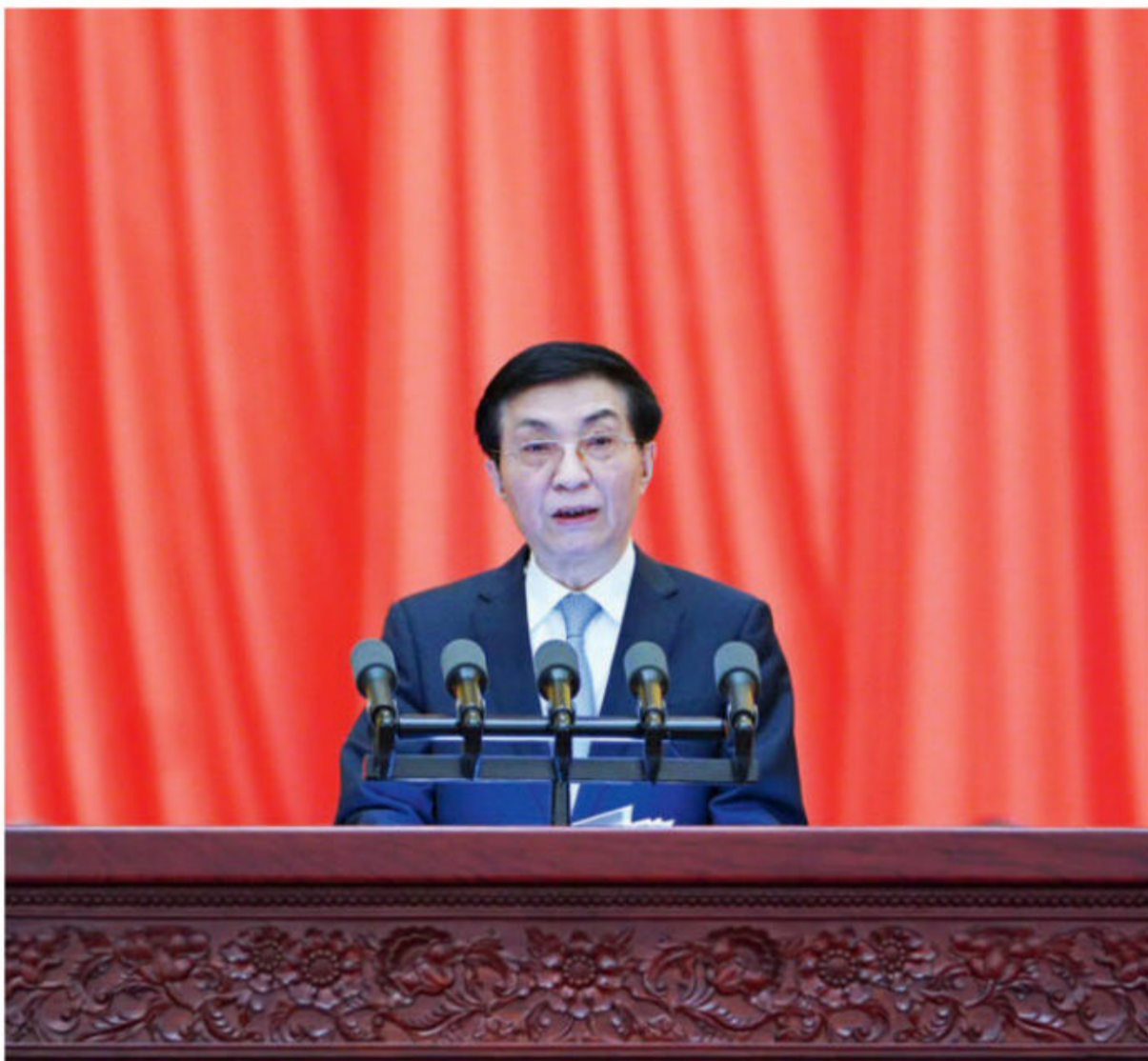
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Advising Xi Jinping

Thinker-in-chief

The career of Wang Huning reveals much about political change in China

IN THE YEAR before the Tiananmen Square protests of 1989, campuses in China buzzed with debate about how to make the country more liberal. To some intellectuals the West offered a model. In the Soviet Union Mikhail Gorbachev had shown how a start could be made. Amid this ferment, in August 1988, a bespectacled political scientist arrived in America for half a year of study, initially at the University of Iowa. He found much to criticise but also plenty to admire in America: its universities, its innovation and the smooth transfer of power from one president to another. Capitalism, wrote the 32-year-old party member, “cannot be underestimated”.

That academic, Wang Huning, is now one of seven members of the Politburo Standing Committee, the Communist Party’s supreme ruling body. As its chief of ideology and propaganda, he is in charge of crafting a very different message: that China practises true democracy, that America’s is a sham and that American power is fading. For a party locked in an escalating

ideological war with America, this line is unsurprising. Mr Wang’s role in the struggle is more so. His early writing did not suggest narrow-minded nationalism. He saw weaknesses in America’s system, but did not exaggerate them. He saw problems, too, in China’s. Even more remarkably, he has been crafting the party’s message under three successive leaders. China’s current ruler, Xi Jinping, has trusted him in this vital role even though he is not an old associate. A state-linked newspaper called him the party’s “number one adviser”.

It is a shadowy post. His occasional speeches give little hint of what he does behind the scenes. Before Mr Xi stopped travelling abroad two years ago, at the outset of the pandemic, Mr Wang often accompanied him on foreign trips, suggesting he is also involved in diplomacy. Party-linked media in Hong Kong have given more away. They have credited Mr Wang with shaping the defining policies of each leader for more than two decades, from the “three represents” of Jiang Zemin (which

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removed taboos surrounding the admission of private entrepreneurs into the party) to Hu Jintao’s “scientific outlook on development” (aiming for a more eco-friendly and equitable approach) and Mr Xi’s “Chinese dream” of a rich, militarily strong and globally powerful China.

This may have required some tricky political footwork. As a member of Mr Xi’s inner circle, Mr Wang would have needed to distance himself from both Mr Hu and Mr Jiang, whose allies have been among the targets of Mr Xi’s purges. It was Mr Jiang who had brought Mr Wang from Fudan University in Shanghai, where he taught, to the party’s headquarters in Beijing in 1995. Being an academic, not a politician, may have helped Mr Wang to rise above the party’s internal battles. All factions have valued his skills as a theoretician, and his willingness to use them flexibly.

It is impossible to know what Mr Wang truly thinks of the policies he espouses. How did he react when, in 2018, the year after Mr Wang’s elevation to the Politburo Standing Committee, Mr Xi changed the rules to make it easier for China’s leader to remain in power indefinitely? In his book about his American sojourn, “America Against America”, which was published in 1991, Mr Wang noted that if a political system failed to devise a way of transferring power, it would be hard for that country “to enjoy enduring and stable political order”. The book is often described as a gloomy ▶▶

▶ survey of America's prospects (with "collectivist" Japan challenging its supremacy). Yet its stability clearly impressed him.

But assuming that Mr Wang believes the propaganda he is now promoting, his intellectual journey is not so different from that taken by many others of his generation. In the 1980s he typified those who believed in "neo-authoritarianism", ie, that strong leadership was necessary in order to manage gradual and orderly change, over a lengthy period, towards a more liberal form of politics (few openly suggested an eventual end to one-party rule).

Much changed at the end of that decade and beyond. First, the pro-democracy unrest of 1989 all but ended the party's talk of political reform. Then came the collapse of communist regimes elsewhere. Little of what emerged appealed to China's liberals. The country's economic boom in the 1990s bolstered the attraction of a strong party that could keep the country stable. "Continue writing articles about political reform," Mr Wang wrote in his diary in 1994 while still an academic (it was published the following year). "Suggest some feasible methods for dealing with the present situation...but if you want change quickly, you won't accomplish it."

The diary, titled "A Political Life", covers just one year, but offers fascinating details of Mr Wang's non-academic interests at the time. He liked watching foreign films, often late at night (many entries begin "In the small hours..."). "Alien", a science-fiction horror movie, was one. Such films were popular in the West, he noted. "I don't know whether that's something to do with their mentality or some social reason."

Like many people in the 1990s, Mr Wang also appeared intrigued by the claims of mystics to have supernatural powers. He described meeting one who showed his skills, appearing to twist together a fork and spoon with just a touch, and extract pills from a bottle without opening it. "It really was a miracle," Mr Wang wrote. "One couldn't but believe." In 1999 the government launched a fierce campaign against Falun Gong, a mystical group led by a self-styled miracle-worker. These days no official would even hint at belief in magic.

Mr Wang would probably have little time for such diversions now, anyway. Late this year the party will hold a five-yearly congress, at which it is likely to clarify that Mr Xi will indeed remain the party's leader, despite having served for the once-expected maximum of ten years. Mr Wang should be busy already preparing the report that Mr Xi will deliver.

He has long experience of such work. When an academic, he was invited in 1987 to submit suggestions for the report delivered at that year's congress, according to Ming Xia, a former colleague who now teaches at the City University of New York.

With regard to politics, that document in 1987 was the most pro-reform of the Communist era, calling for the separation of party and government. But Mr Wang avoided entanglement with the party's reformist faction in Beijing, and kept mum during the upheaval in 1989, says Mr Xia (who was less guarded). He did, however, facilitate Mr Xia's departure for America after the bloody suppression of the protests.

It is far from clear what will happen to Mr Wang after the congress. He is young enough, at 66, to remain in the Politburo Standing Committee for another five years. But new ideologues are emerging, says

Cheng Li of the Brookings Institution. One is Jiang Jinqun, who took over from Mr Wang in 2020 as head of the party's policy research centre, a powerful think-tank. Mr Jiang may get a seat in the Politburo after the congress, Mr Li believes.

Perhaps Mr Wang is ready for a move. "When a person has been at his work for a long time...his thinking will gradually become fixed and he will lack open-mindedness," he wrote in his diary of 1994. The relentless, obsessive calls for devotion to Mr Xi by Mr Wang's propaganda machinery suggest that fixed thinking is a problem that pervades the system. ■

Covid-19 and the elderly

Injecting urgency

HONG KONG

As infections rise, Hong Kong's pensioners remain worryingly unvaccinated

YIM SUET MUI, an 83-year-old Hong Konger, waited almost a year before getting a vaccination against covid-19. "If I die, I die," was her attitude. "I am old." Such fatalism came easily in the territory until recently because it had done well at keeping the virus out. Controlled borders, ubiquitous mask-wearing and strict quarantining meant months have sometimes passed without a locally transmitted infection. But one side-effect was the elderly not wanting (or not bothering) to be jabbed. Only 30% of over-80s and 60% of over-70s have chosen to have a first dose, compared with 86% of residents aged 12-69. (The same is true in some provinces of mainland China, where less than 30% of over-80s and less than 50% of over-70s are jabbed.)

Now the bug has breached the territory's defences. Since two infected Cathay Pacific crew members broke quarantine rules over Christmas, an Omicron wave

has grown. On February 9th Hong Kong logged more than 1,000 new covid-19 cases, easily its highest tally since the pandemic began. The fear is that the old and unvaccinated will now pay a heavy price for their reticence.

This week Hong Kong's government unveiled its toughest social-distancing restrictions to date. Gatherings are limited to two people and there are plans to allow only the vaccinated into shopping malls. Carrie Lam, the chief executive, said the measures were needed to buy time for the elderly to get their jabs.

Since the Sinovac and Pfizer vaccines have been freely available for a year, such talk frustrates parents and businesses alike—all the more so because officials have often seemed over-cautious on vaccination, feeding old people's hesitation. Residents of care homes had to request a jab, unlike for flu shots, which are given to all unless they opt out.

Omicron's high transmissibility means the new outbreak will not be easily quelled, particularly because fully locking down the densely populated city, mainland-style, is probably unfeasible. Even so, Mrs Lam says that Hong Kong must continue to implement a "dynamic zero" policy of trying to eliminate transmission of the virus.

Pensioners are at last mobilising. Some 35,000 Hong Kongers are now receiving vaccinations each day; around 40% of them are over-60s getting a first dose. Among those queuing up outside vaccination centres, most say they were finally persuaded by the announcement in January that the unjabbed would be barred from *yum cha* restaurants, where many elderly Hong Kongers spend their mornings. Nothing is going to get between them and their breakfast buns.



In it for the buns

Chaguan | China's complicated Olympic mood

At the Beijing winter games, a mix of happy pride and angry defiance



THE TERM “raucous” could not be applied to the crowd at the opening ceremony of the Beijing Winter Olympics—perhaps because many of them were officials, attending as a reward for good conduct. So on the few occasions that spectators at the Bird’s Nest stadium did show emotion on the cold, clear evening of February 4th, their reactions were worth studying. Chaguan was among dozens of Beijing-based foreign reporters invited to the ceremony. He sat in a section of the stadium separated by fences and guards from the “closed-loop”, a secure quarantine zone created for Olympic athletes, coaches and dignitaries newly arrived from an outside world that, in contrast with China, has resigned itself to living with covid-19. Most of the stadium’s seats were kept empty, as a pandemic precaution. Olympic tickets are not on sale to the public, and China’s borders are closed to foreign fans.

Some moments would have made any Chinese crowd cheer. These included the arrival of President Xi Jinping and the raising of the national flag to the strains of “Me and My Motherland”, a patriotic hymn. Other reactions were more revealing: notably, the applause that welcomed a few athletic delegations marching into the stadium, when most were greeted with silence. China’s arrival, naturally, prompted roars of pride. There were cheers, too, for Hong Kong and for athletes from Taiwan, the democratic island that China claims as its own. The Taiwanese looked a bit glum, perhaps because—bowing to demands from China—the International Olympic Committee makes them compete under the made-up name of “Chinese Taipei”. Two other countries earned loud cheers: Pakistan and Russia. That is telling. After all, many things that the Chinese public dislikes are endemic in Pakistan, from rampant corruption to Islamic extremism to terrorist groups that target Chinese interests. As for Russia, its team is competing in Beijing as “the Russian Olympic Committee” rather than under its own flag, as punishment for systematic state-sponsored doping.

The pattern held at a women’s ice hockey game the following night, between America and Russia. As Team USA cruised to a 5-0 win, the crowd of fewer than 600 locals, rattling around the 18,000-seat Wukesong arena, did not hide a pro-Russian tilt, yelling “Good, good!” and waving small flags depicting Bing Dwen Dwen, a wide-eyed panda mascot, whenever Russia controlled the

puck. Chaguan’s neighbours, officials from the Beijing State-Owned Assets Management Company, who had been offered free tickets a week earlier, said they backed Russia as an “old friend”.

In many ways, the games find China in confident and upbeat mood. Take the many student volunteers in Olympic snowsuits and furry hats. A hand-picked bunch, some revealed that they belong to the Communist Youth League, a recruiting ground for future party members. Others said that organisers chose good students with “a volunteer spirit”. Either way, their good cheer is unfeigned, even after hours outdoors in the cold. As for this year’s opening ceremony, it was less bombastic than the show that kicked off the Beijing summer games in 2008, though both were directed by Zhang Yimou, a film-maker. In place of massed drummers and other shows of might 14 years ago, this time dancers paid tribute to pensioners who twirl each night in parks and public squares. Later, children scampered about with illuminated doves.

This China wants to be seen as modern but lovable. That explains dancing robots at Wukesong’s security checkpoint, singing the Beijing 2022 theme song, “Together for a Shared Future”. Even some Olympic venues reflect growing cultural confidence, such as a freestyle-ski ramp built among the disused cooling towers and blast furnaces of Shougang, a former steelworks in western Beijing. Unfairly mocked by foreign commentators, Shougang is actually magnificent: a slice of carefully preserved industrial heritage resembling a steam-punk film set.

A conditional welcome

But China’s confidence has a darker side. Guided in part by grievance-stoking propaganda outlets, the public mood increasingly resents foreign criticism. In this polarising age, many in China divide the world into friends—countries and organisations that praise China as a model—and the rest. Russia’s president, Vladimir Putin, issued a joint statement with Mr Xi just before the opening ceremony that unveiled a united front against America and its Western allies. The pair condemned powers that use “advocacy of democracy and human rights” to lean on other countries, and endorsed what sound a lot like Russian and Chinese spheres of influence in Europe and East Asia. Both hailed a moment of “redistribution of power in the world”. Pakistan is liked in China because it is a noisily loyal ally. Its prime minister, Imran Khan, in Beijing for the games, praised China’s Communist Party for its discipline and focus on ending poverty, hailing its achievements as “unique in the history of mankind”.

Rising confidence and impatience with critics are two sides of the same national mood. The Olympic slogan “Together for a Shared Future” is in fact an ideological challenge, even when sung by cute robots. It refers to a Xi-era foreign-policy mantra, “A Community of Shared Future for Mankind”. That is code for replacing universal values with moral relativism, and putting economic development above individual rights. The aim is to help China, in its diplomats’ words, move nearer the “centre of the world stage”.

Amid warm welcomes for athletes, flashes of cold defiance lurk, as when China chose a little-known Uyghur skier to light the Olympic cauldron with a Han Chinese colleague: a statement that China feels no shame at repression of Uyghurs and other Muslims in Xinjiang. Any hint of bad news about the games is blamed by Chinese officials on “paranoid Western media”. A meme flying around Chinese social media shows Bing Dwen Dwen in a bobsleigh, warning those who block his way: “I’ll run you over.” Though not an official slogan, it captures China’s mood well. ■



America and Iran

The endgame

VIENNA

As nuclear talks with Iran continue, time is running out to avert a new crisis

IN A WORLD of increasing geopolitical rivalry—over Ukraine, Taiwan and more—the big powers have at least managed to cooperate in the diplomatic effort to contain Iran's nuclear programme. Might negotiators in Vienna succeed in reviving the nuclear deal agreed on by Barack Obama in 2015 and abandoned by Donald Trump three years later?

The latest round, which began on February 8th, looks decisive. Negotiators have never been closer to a breakthrough, yet have also never been closer to a breakdown, says a source. Upbeat American officials say a deal is “in sight”. In an apparent gesture of goodwill, America last week said Chinese, Russian and European firms could again receive waivers from sanctions for some civilian nuclear activities in Iran. American hawks have also grown louder in their opposition. More than 30 Republican senators have warned President Joe Biden that he must submit any deal to the Senate or face “the full range of options and leverage” they can muster.

The dangers of a breakdown are readily apparent. Iran's allies in Yemen, the Houthis, have intensified missile and drone attacks against the United Arab Emirates (UAE). That has prompted, in turn, the deployment of an American warship and advanced fighter jets, not just to help protect the UAE but to send an implicit warning to Iran. Israel, which worries about a “damaging” deal, has been rehearsing military strikes on Iran's nuclear facilities. Its security co-operation with Gulf states is increasing, too.

The Joint Comprehensive Plan of Action (JCPOA), as the nuclear deal is known, strictly limited Iran's nuclear programme and strengthened inspections in return for

a lifting of many international sanctions. But it was denounced by Israel and even some Democrats. It allowed Iran to resume large-scale uranium enrichment after 15 years. It did not oblige Iran to end its ballistic-missile programme or its involvement in regional conflicts. Mr Trump, calling the JCPOA “the worst deal ever”, imposed a multitude of sanctions on Iran under a policy of “maximum pressure”.

In response, Iran progressively accelerated its enrichment of uranium, the fissile material required both for nuclear reactors and for bombs. It has spun some uranium to 60% enrichment, a hair's breadth away from weapons-grade. It has also converted enriched uranium hexafluoride gas into uranium metal—for which the most likely use is in bombs—and hampered inspections by the UN's International Atomic Energy Agency (IAEA). Rafael Grossi, the agency's director-general, notes that Iran is the only country without nuclear weapons to enrich uranium to such a high degree. “What you have here is an Iran that has grown in width, in depth, in height, in all, in all dimensions, in its nuclear programme,” he says.

Iran's “breakout time”—the period it would need to make a bomb's-worth of fissile material—has shrunk to less than a month, much shorter than the year or more when the JCPOA was still in force. (Putting a nuclear warhead on a missile would take perhaps another year or two.) ▶▶

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Hence America's insistence that the talks are entering the "endgame". It believes that a deal will have little value unless concluded soon. The longer the negotiations drag on, the sooner the restrictions on Iran's programme will expire under the JCPOA's "sunset clauses". Given Iran's increased capabilities, even a quick return to the deal would no longer restore the full year's breakout time, admits Rob Malley, America's chief negotiator.

For the Iranians, too, the JCPOA is losing value. Any lifting of American sanctions is liable to be temporary, given that Mr Biden may well be out of office in 2025. Mr Trump might be back in the White House. Any Republican president would face immense pressure to abandon the deal. American negotiators have rejected Iranian demands for a "guarantee" that sanctions will not be reimposed. Mr Biden cannot bind his successor, they say; the best he can offer is a promise to abide by the JCPOA if Iran remains in compliance.

Will such limited reassurance be enough? Optimists see a better-than-even chance of a deal, noting the shift in America's positions. It would give the Iranian economy a boost at the start of Ebrahim Raisi's presidency. Pessimists see a high likelihood of failure, reckoning that Iran wants to press its advantage, convinced that America will not go to war. The risk of misunderstanding is high, given that Iran refuses to talk directly to America (instead, it negotiates indirectly through European, Chinese and Russian diplomats).

Mr Biden says he will not allow Iran to get a nuclear weapon, but Israel is not reassured. It says Iran should not have the "capability" to acquire a nuke (but does not define this). Having promised a deal that would be "longer and stronger" than the JCPOA, the Biden administration will at best get one that is shorter and weaker. The blame for that lies in Mr Trump's "catastrophic" withdrawal from the JCPOA, says the administration. It hopes that, once the JCPOA restores some stability, follow-on negotiations may improve its terms.

Western officials are also preparing for a breakdown, however. They are quietly discussing the next steps to increase economic and political pressure on Iran. One option would be for a European country—probably Britain—to invoke the "snapback" provisions of the JCPOA to reimpose UN sanctions. These would have limited impact and risk a breach between the West and Russia and China, whose acquiescence would increase the impact of any effort to impose more economic pain on Iran.

Thus far Russia and China have helped nudge Iran towards a deal. In December, for instance, they pushed it to return to its limited co-operation with the IAEA to avoid bringing the matter before the UN Security Council. Their ties with Iran are complex.

Russia provides it with weapons and civil nuclear technology. China is the biggest buyer of its oil. Both seem keen on using Iran as a counterweight against American influence. But neither wants Iran to go nuclear. Nor do they seem to want a new crisis in the Middle East that will add to geopolitical instability.

The gathering storm in Ukraine may affect such calculations. Some diplomats hope the crisis there will hasten an agreement, as the big powers seek to contain their rivalry. Others fear that positions are already hardening. Russia and China last week issued a joint declaration denouncing America and its allies for fuelling "antagonism and confrontation" around the world. Iran could become another element of antagonism. If so, a new crisis in the Middle East will be added to that in Europe and the one looming in Asia. ■

Israel

The surveillance state

JERUSALEM

Did the police use home-grown spyware on citizens?

UNTIL RECENTLY many Israelis took pride in Pegasus, a fearsome bit of spyware developed by NSO Group, a local firm. The technology exploits weaknesses in a smartphone's digital defences, allowing users to eavesdrop on conversations, access data and control the camera and microphone. While marketed as a means for governments to fight organised crime and terrorism, Pegasus has reportedly been used by authoritarians to target activists, journalists and politicians. But Israelis brushed aside those concerns. The tool's popularity was proof that their country's tech firms are world class.

The mood is changing, though. Pegasus is not only a threat to foreigners, reports *Calcalist*, a local newspaper. The Israeli police have also used the software, without a court order, to spy on local activists, politicians and businessmen, the paper claims. Its allegations have not been corroborated. But they were enough to convince the government to investigate. Naftali Bennett, the prime minister, said the deputy attorney-general was looking into the matter. The public-security minister, Omer Barlev, who oversees the police, called for a commission of inquiry.

The list of people allegedly targeted by the police has ignited a firestorm of indignation among supporters of Binyamin Netanyahu, the former prime minister (pictured). It includes his aides and one of his sons. It also includes a crucial state wit-

ness in the corruption trial of Mr Netanyahu, who pounced on the allegations. He called it a "dark day for Israeli democracy" and said the alleged use of Pegasus by the police was like the army "using planes meant to be used against Iran, Hizbullah and Hamas to blow up Israeli civilians".

Much is still unclear—like who might have chosen the targets of Pegasus and why. Nevertheless, Mr Netanyahu's allies have called for his trial to be dismissed. For now, it has been suspended so that the prosecution can figure out whether Pegasus was used in the gathering of evidence. A commission of inquiry may, eventually, provide some answers. But it also carries risks for Mr Netanyahu, who leads the opposition in the Knesset (Israel's parliament). His critics were quick to note that the alleged abuses by the police are said to have occurred on his watch.

As prime minister, Mr Netanyahu served as NSO Group's chief salesman, offering Pegasus to foreign leaders as a carrot for better relations. The firm's customer list includes the populist leaders of Brazil, Hungary and India, with whom Mr Netanyahu got along, as well as the Sunni Arab regimes—Bahrain, Morocco and the United Arab Emirates—that established relations with Israel during his tenure.

Mr Netanyahu had also urged the Israeli police to do more with the tools at its disposal. In 2015 he chose Roni Alsheikh to lead the force. Mr Alsheikh was an unusual pick, having never served in the police. But he had been the deputy chief of Shin Bet, the internal security agency, which uses cyber-technology in its counter-terrorism operations. At his induction ceremony, Mr Netanyahu urged him to use it "also for policing, also for the daily protection of civilians and for law enforcement". Still, there is no public evidence that Mr Netanyahu was aware that the police were using Pegasus. Mr Alsheikh says the reports are ▶▶



He spies an opportunity

▶ “disconnected from reality”.

It will be interesting to see how Mr Bennett’s government navigates the scandal, given its ties to the cyber-industry. His interior minister, Ayelet Shaked, is a former tech executive with friends at NSO Group. The prime minister himself made millions co-founding an online-banking security company. As defence minister (under Mr Netanyahu) he proposed giving NSO Group data about Israelis as part of an effort to contain covid-19. That led to a backlash from other lawmakers.

The government may be growing weary of all the controversy surrounding NSO Group. Late last year America blacklisted the company. Weeks later Apple sued it for “weaponising powerful state-sponsored spyware” against its customers. Now Israelis are complaining, too. Perhaps it is time to rein in Pegasus. ■

Educating girls

Back with a bump

More African countries are letting pregnant girls stay at school

SARAH DID not know she was pregnant until teachers told her. In 2020 her state-run boarding school in Tanzania ordered tests for all the girls, who were returning after a three-month closure caused by covid-19. When her result arrived she was expelled and sent home. She was less than two years from graduating.

Sarah is one of thousands of girls harmed each year by a law that compelled schools to kick out pupils who were accused of “an offence against morality”. These expulsions were celebrated by John Magufuli, the previous president, who declared: “After getting pregnant, you are done.” Magufuli died last year, perhaps of covid. The government of his successor, Samia Suluhu Hassan, relented in November, saying it would let teenage mums come back into class.

Sub-Saharan Africa has roughly double the world’s rate of teenage births. Only 40% of girls in the region aged 15-17 attend school, compared with 45% of boys. This is partly because of policies like the one Tanzania has abandoned. Such rules are self-defeating, since there is a strong link between the number of years of schooling that girls complete and the number of babies they will subsequently have.

At least 30 African countries now protect the educational rights of pregnant girls and young mothers, according to Human Rights Watch (HRW), a pressure group. Half a dozen have made progress in

the past few years (see map). New rules in Uganda, where about a third of girls marry before they turn 18, allow parents to report school principals who refuse to enroll young mothers. Mozambique and Zimbabwe have made schooling easier for teenagers with children, too. The last two hold-outs still expelling the expectant are Equatorial Guinea and Togo.

The most celebrated recent reforms are in Sierra Leone. In early 2020 the government ended a ten-year ban on adolescent mothers attending normal schools. A year later it introduced a new policy—dubbed “radical inclusion”—that gives pregnant girls the right to remain in class until they give birth and allows them to return to lessons as soon as they wish. Local law considers girls who have sex before the age of 18 to be victims of a crime, says David Sengeh, the education minister. Forcing them to give up their schooling made no sense.

Many of these changes were in train before the pandemic. But some 30 weeks of school closures in Africa have made them all the more essential. The Mo Ibrahim Foundation, an NGO, reckons the hiatus deprived pupils in 23 African countries of roughly an eighth of the learning they would typically receive in their entire time in school. That is all the more worrying because they do not receive as much as pupils elsewhere to begin with.

In the early months of the pandemic World Vision, another NGO, estimated that around 1m sub-Saharan African children would drop out of school as a result of becoming pregnant during lockdowns. Reliable data on the impact remain scant. But the available evidence suggests that teenage pregnancies have indeed ticked up. Youngsters spent more time unsupervised, contraceptives were harder to come by and violence against women increased. One study of 500 rural adolescent girls in Kenya has found that after a six-month closure



they were twice as likely to become pregnant as girls who had completed their schooling before the pandemic.

Governments have more to do. Few of them maintain policies as liberal as Sierra Leone’s. Uganda’s new guidelines require pregnant girls to leave school before their second trimester, for example, even if their right to return is much clearer than it was. Countries with enlightened rules often struggle to enforce them, says Elin Martinez of HRW. Principals, parents and village chiefs have to be on board. Mr Sengeh says he still runs into activists, both male and female, who tell him the new policy on pregnancy is a big mistake.

Mshabaha Mshabaha, of the Change Tanzania Movement, a campaign group, says he won’t be satisfied until his country’s new rules are written into law. Without that, he says, future governments may return to old habits. And they are too late for many, including Sarah, whose child is now almost a year old. “We gave you a chance to finish school,” her parents tell her. “And now you’ve lost it.” ■



Economy class

The African Union

Older and less wise

ADDIS ABABA

Africa's regional club is less effective at 20 than it was at two

IT WAS A birthday commemorated in style. In the heart of Ethiopia's capital, Addis Ababa, the seat of the African Union (AU), water fountains erupted and champagne glasses clinked as heads of state and assorted dignitaries tucked into a four-course meal to the sound of sultry jazz.

The party marked 20 years since the AU's founding. It coincided with the AU's annual summit, which took place on February 5th and 6th. Abiy Ahmed, the prime minister of Ethiopia, seized the opportunity to thank his fellow African leaders. They had stood by his government through a challenging year, he said, confirming the principle of African solidarity upon which the AU was built. It was a veiled reference to his country's civil war, which continues to rage a few hundred kilometres from the city. Neither he nor the other leaders made any mention of his tactics, which include starving into submission the 5m people of Tigray, a rebellious province. That would have ruined the festive mood.

Yet it is such horrors that keep thoughtful African officials up at night. The AU, which replaced its discredited predecessor, the Organisation of African Unity (OAU), in 2002, is supposed to resolve the continent's wars, ease the flow of trade across its borders and help Africa to speak with one voice in world affairs. Thabo Mbeki, a former president of South Africa and one of the AU's architects, promised a "continent of democracy" in which "the people participate and the rule of law is upheld". Two decades on, its record is mixed.

The African Continental Free Trade Area, which took effect last year, is a genuine (if incomplete) achievement. So too are some of the AU's early efforts at peace-keeping and upholding democracy. Unlike the OAU, which refused to interfere in the affairs of its members, the AU has the power to intervene, without consent, to stop a bloodbath. In 2004 it sent African troops into Darfur to halt a genocide. Three years later it established a mission to combat a jihadist insurgency in Somalia. And for almost two decades putsches had become much rarer, thanks in part to the AU's strict no-coups policy.

In other respects, though, the AU has come to resemble the talking shop it supplanted. At each summit it approves admirable-sounding schemes. Too few go anywhere. In 2017 Paul Kagame, Rwanda's president and soon to be chairman of the

AU, spoke of a "crisis of implementation". According to Bruce Byiers of the European Centre for Development Policy Management, a think-tank, "the gap between the number of continental initiatives and their entry into force" has widened over time. Mr Kagame warned of a "dysfunctional organisation in which member states see limited value...and our citizens have no trust". According to Afrobarometer, a polling firm, more than a third of Africans either think the AU is useless or have no opinion of it at all.

The AU's ambition to end conflict on the continent (originally by 2020, now pushed back to 2030) has rarely seemed more daunting. In addition to the war in Ethiopia, jihadists still run amok across large parts of Somalia and much of the Sahel. Mozambique is struggling to quell a bloody insurgency in its impoverished north. Eastern Congo seethes with rebel militias. Coups are also making a comeback: in the past year the AU has suspended four countries (Burkina Faso, Guinea, Mali and Sudan) because of putsches. Solomon Dersso of Amani, a think-tank in Addis Ababa, frets that there has been a "puncturing" of the democratic norms that the AU had been trying to enforce.

Others lament inaction. The AU's peace and security council, a 15-member panel modelled on the UN Security Council, has "lost some of its energy and zeal", says a former AU official. It chose not to expel Chad when the son of Idriss Déby, Chad's

late dictator, seized power after his father's death last year. (The AU said the takeover was not a coup.) Pragmatism as well as diplomatic sensitivities partly explain this: Chad's army plays an important role fighting jihadists in the Sahel, and Moussa Faki, a former Chadian foreign minister, is currently chairman of the AU's commission, its executive arm. Nonetheless, "this will constitute a precedent," warns Mohamed Diatta of the Institute of Security Studies, another think-tank in Addis Ababa.

The commission's dream of becoming something like the executive branch of the European Union has faded. Unlike the European Commission, it has no meaningful powers to enforce treaties or craft regulations. "It might be called a commission, but it is becoming more like a secretariat," says a Western diplomat.

Game of phones

Paul Williams, an academic at George Washington University who has studied the AU, argues that African governments have also learnt how to game it. "At first the commission ran the show, and a lot of the member states didn't know how to push back," he says. "But as they have gained expertise and knowledge they have begun to exert themselves much more forcefully."

Ethiopia is a prime example. For more than a year it has kiboshed a strong AU response to its civil war. AU mediators dispatched at the outset of the conflict were soon rebuffed. It took almost another year for the peace and security council to meet expressly to discuss the crisis (the fact that rebels were then threatening to storm Addis Ababa no doubt focused minds). Another mediation effort was established in August. It is led by Olusegun Obasanjo, a former Nigerian president who, happily for Abiy, chaired the AU electoral observation mission that endorsed Ethiopia's questionable polls last year. Almost six months into the job, Mr Obasanjo is only now hiring staff.

Even if it were more willing to be firm, the AU has little by way of sticks or carrots to enforce its decisions. Countries, big or small, can thumb their nose at it. When the peace and security council voted to send troops to quell violence in Burundi in 2015 the Burundians "basically told them to bugger off", says Mr Williams. Few are better at this than Ethiopia. Its government can lean on AU diplomats who displease it, or expel them altogether. But Mr Faki, in a candid address on February 5th, warned that cries of sovereignty were being used by African states as an "iron wall" against any intervention, and that expressions of solidarity were no substitute for action when "neighbouring houses [are set] ablaze". It was a tacit admission that the task of building a union greater than the sum of its parts remains unfinished. ■

**Shouting coup in a crowded theatre**



Germany

Olaf Scholz wakes up

BERLIN

A beleaguered chancellor launches a diplomatic offensive

THEY WERE NOT the sort of headlines any leader would hope to read. “Germany, NATO’s weakest link,” said the *Wall Street Journal*. “The ‘invisible’ chancellor heads to Washington amid fierce criticism,” offered the *New York Times*. As Russian troops massed on Ukraine’s border and the West fumbled for a response, Olaf Scholz, Germany’s new chancellor, stood accused by allies of being missing in action. At home Germans concerned by his reluctance to enter domestic debates detected a pattern. “Our image has been seriously damaged abroad,” says Johann Wadephul, an MP from the opposition Christian Democrats.

With criticism mounting, Mr Scholz has belatedly sprung into action. On February 7th he visited Joe Biden in Washington, DC. He hosted half a dozen EU leaders in Berlin this week, and on February 14th and 15th will travel to Kyiv and then Moscow for his first meeting with Vladimir Putin. Officials do not expect this sudden burst of diplomacy to bring immediate results. But it shows a sensitivity to allies’ demands for German action.

The damage control was most urgent in America. Here concerns have centred on Germany’s reluctance to threaten to scrap Nord Stream 2, a new undersea Russia-Germany gas pipeline that America fears would allow the Kremlin to blackmail Europe. Mr Biden says he will kill the pipeline if Russia invades. German officials concur.

But like an actor nervous of uttering “Macbeth” in a theatre, Mr Scholz refuses to let the words “Nord Stream 2” pass his lips in public. This increasingly farcical stance, designed to forestall Russian allegations that Germany is wielding energy as a weapon, wins the chancellor few friends. Nor does Germany’s stubborn denial of Ukraine’s requests for weapons.

Yet on substance Germany and America are broadly aligned. The two countries have been discussing potential sanctions since last September and financial officials from the two countries now speak at least weekly. Should Russia invade, Germany would be willing to sign up to a common package. What transatlantic (and intra-EU) differences there are revolve around de-

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tails, especially on the Russian gas that accounts for over half of Germany’s imports. Mr Biden, for his part, is keen to calm the storm. “Germany is completely, totally, thoroughly reliable,” he said during Mr Scholz’s visit. A group of senators who dined with the chancellor declared themselves charmed. During a TV interview Mr Scholz defended Western values with an ardour that surprised even his supporters.

Germany is stepping up in Europe, too. The government will not change its mind on arms exports, but it has sent more troops to Lithuania, where Germany has led a NATO force since 2017. Emmanuel Macron has taken the diplomatic lead for Europe, but is co-ordinating with Mr Scholz. The chancellor’s team hope his visit to Moscow will pick up where the French president this week left off (see International section). The two leaders are united in trying to breathe life into the Normandy format, a diplomatic grouping that brings France and Germany together with Russia and Ukraine, thereby offering Europeans a seat at the negotiating table.

These ambitions are married with frustration over the criticism laid at Germany’s door. “Maybe our allies have to come to terms with the ‘Scholz way,’” says Nils Schmid, the foreign-policy spokesman for the parliamentary group of Mr Scholz’s Social Democrats (SPD). He defines this as “short, clear statements and a refusal to be pressured into saying particular things”. During last year’s election campaign Mr ▶▶

► Scholz presented himself as accomplished and unflappable, and so a natural heir to Angela Merkel. But Mrs Merkel had been in office for nine years when she marshalled the EU's response to Russia's annexation of Crimea in 2014. Mr Scholz has a long cv but little foreign-policy experience.

Indeed, barely two months after replacing Mrs Merkel, Mr Scholz is in a tricky spot. He took office at the head of an unprecedented three-party coalition fizzing with ideas, notably on greening Germany's industrial economy. Those plans have started to unfold, but have been overshadowed by a diplomatic crisis almost precision-engineered to test the young government's resolve. The parties have different instincts on Russia; the SPD even has competing wings. During coalition negotiations in November no foreign-policy issue proved trickier than Russia and Nord Stream 2. "This debate has wrong-footed the government," says a German official.

Voters have noticed. Two-thirds say they are unhappy with their government's response to the Ukraine crisis. After a narrow election win last September, the SPD has slid behind its conservative rival in polls. (The Greens and the pro-business Free Democrats, the junior coalition partners, are holding steady.) Before Mr Scholz took office half of Germans said they expected him to govern well. Now barely a fifth say he has made a good fist of things.

This is despite a foreign-policy stance broadly in line with public preferences. Three-quarters of Germans do not wish to send arms to Ukraine. They support Nord Stream 2, or at least would prefer to sequester it from diplomatic rows. Few think Germany should be confrontational towards Russia. The coalition has so far defied expectations that it would prove endlessly quarrelsome. Instead, voters have grown frustrated with a leader whose reticence has been acute even by the modest standards of German chancellors. "If you order leadership from me, you will get it," Mr Scholz once said. Germans are no doubt relieved to see him finally try. ■

Honeymoon over

Germany, Olaf Scholz's approval rating, %



Source: Morning Consult

Bosnia

Shaky state

SARAJEVO

The multi-ethnic country is on the brink of falling apart again

A PLAQUE ON Sarajevo's magnificent old town hall, built under the Austro-Hungarian empire, commemorates its destruction by "Serbian criminals" in 1992. The hall has been reconstructed, but Bosnia-Herzegovina is crumbling. The country is facing its worst crisis since the end of the war in 1995.

The Dayton Accords that ended the fighting in Bosnia created a country composed of two main entities: the Serbian-dominated Republika Srpska (RS) and the so-called Federation, where Bosniaks (Bosnian Muslims) share power with Bosnian Croats. Above them was a largely toothless national government, which has gradually acquired a few more powers and a small army. A foreign "High Representative" was appointed to oversee the deal. The system helps keep the peace among Bosnia's once-warring ethnic groups, but also provides vast opportunities for corruption.

Now this structure is under threat. Milorad Dodik (pictured), the Serbian member of the country's three-man presidency, wants to rescind powers granted by the RS to the Bosnian state. That is secession in all but name. The most explosive proposal is to recreate the RS's army, which murdered 8,000 Bosniaks at Srebrenica in 1995. Mr Dodik's power play started in July, after the High Representative imposed a law making it illegal to deny that the massacre at Srebrenica was genocide. Damir Arnaut, an MP, says Mr Dodik's real aim is to "deflect debate about corruption".

Meanwhile HDZ, the main Bosnian Croat party, is threatening to scupper this year's planned elections. For years it has objected to the fact that Bosniaks and Croats vote jointly for the Federation's Bosnian and Croatian representatives in the presidency. Hence Zeljko Komsic, the Croat representative, is elected mainly with Bosniak votes. Mr Komsic objects to changing the electoral rules to divide the Federation's voters by ethnicity, saying the HDZ and Mr Dodik are trying to achieve what separatist leaders failed to during the war. Those threatening Bosnia's constitution should be arrested, he insists—seated under a portrait of Marshal Tito, the former leader of united Yugoslavia.

Arguments over ethnic divisions leave Bosnia's politicians unable to govern. The country has Europe's second-highest death toll from covid-19 relative to population. The prime minister of the Federation is on

trial for corruption relating to the procurement of sub-standard ventilators. In the RS cheap industrial oxygen was used for covid patients instead of the medical sort.

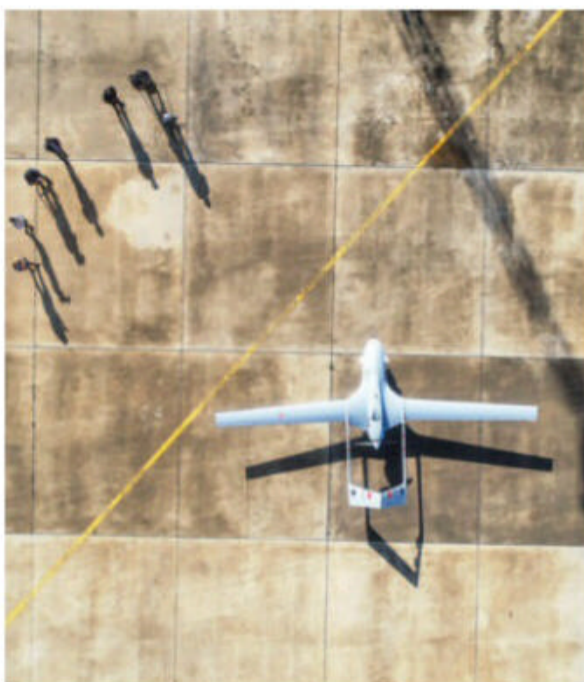
On January 9th the RS's paramilitary police marched in a parade for the republic's 30th anniversary, though the constitutional court had ruled the holiday illegal. Looking on with Mr Dodik was the Russian ambassador. On January 5th America imposed sanctions on Mr Dodik for "attempting to dismantle" Dayton and for corruption. Individual European countries will follow suit, but not the EU as a whole, as Hungary, which supports Mr Dodik, will not allow it.

The atmosphere is febrile. Some are talking of war again, although Ljubisa Cosic, the mayor of East Sarajevo, which is in the RS, says there is "no chance" of that. The border divides neighbourhoods, he says, and every day people from the RS go to work in Sarajevo while people from the capital come to ski in his constituency. Deals can be made to halt the RS's withdrawal from national institutions, he says.

Zlatko Miletic, an MP and former police chief, says the number of men under arms in Bosnia is small and that "a real war" could happen only if Serbia and Croatia get involved. Diplomats are watching Ukraine. If war breaks out there Mr Dodik, encouraged by Moscow, might ramp up his separatist drive. Bosnia has repeatedly survived crises since 1995, and will probably survive this one. But the population has shrunk from 4m in 1991 to about 3m today. Bosnians are voting with their feet. ■



The shadow of history



Turkey's arms exports

Drones of their own

ISTANBUL

A homegrown industry achieves global success

IT HAS LEFT a trail of smouldering Russian-made tanks, trucks and artillery in wars in Nagorno-Karabakh, Syria and Libya. Soon Turkey's TB2 drone may have a chance to do so again in Ukraine, which has bought dozens of them over the past couple of years and is now bracing for a Russian invasion (see International section). On February 3rd Ukraine's president, Volodymyr Zelensky, and Turkey's, Recep Tayyip Erdogan, inked a deal to build more of them together. Some of the drones have already seen action. A TB2 destroyed a howitzer used by pro-Russian separatists in Ukraine's Donbas region in October. American officials say Russia may have been planning to fake a TB2 strike against civilians as a pretext for war.

Mr Erdogan sees Turkey's drones as the harbinger of a military revolution. He wants to eliminate Turkey's reliance on foreign suppliers and turn the country into a big arms exporter. Some of his plans are fanciful, but he has already made considerable headway. Next year Turkey expects to deliver two corvettes to Ukraine, of a model used by its own navy.

Turkey's arms industry is bigger and more self-sufficient than ever. Turnover rose from \$1bn in 2002 to \$11bn in 2020. Its army, the second-biggest in NATO, once relied on foreign suppliers for 70% of its needs. That is now down to 30%. Last year Turkish arms and aerospace exports reached \$3.2bn, a new record.

Plans to develop a homegrown defence industry first picked up steam after 1974, when America responded to Turkey's inva-

sion of Cyprus with an arms embargo. But they have kicked into overdrive under Mr Erdogan. Foreign pressure is again a big motivator. After Mr Erdogan purchased a missile-defence system from Russia in 2017, America banished Turkey from its F-35 stealth-fighter programme and imposed sanctions on the country's procurement agency. Other NATO allies banned some weapons sales after Turkey attacked American-backed Kurdish rebels in Syria and supported Azerbaijan in its recent war with Armenia. Mr Erdogan now seems determined to go it alone. "We will continue," he said last year, "until we completely free our country from foreign dependence."

Turkey's drone programme has been the industry's calling card. (It has also become a family affair. The head of the programme, Selcuk Bayraktar, married one of Mr Erdogan's daughters in 2016.) At only a few million dollars a pop, the TB2s have been flying off the assembly line. Last year Poland became the first NATO member to buy them. Turkey has sold them to at least 12 other countries, including Qatar, Morocco and Ethiopia, which has used them against rebels from Tigray, its northernmost region. Evidence suggests the TB2 was responsible for an air strike that killed at least 58 civilians in Tigray in January. In Turkey's own forever war against the guerrillas of the Kurdistan Workers' Party (PKK) in northern Iraq and Syria, the TB2 has become a routine tool. Mr Erdogan believes total victory is within reach, and rules out new peace talks.

But Turkey's ambitions go well beyond drones. The country plans to roll out its first light aircraft carrier, the 25,000-tonne *TCG Anadolu*, later this year. The warship was designed with the F-35 in mind but is being refitted to carry the Akinci drone, the TB2's more advanced cousin. The new drone, equipped with a Ukrainian engine, can strike targets in the air and on the ground. Deliveries of Turkey's first indigenous battle tank, the Altay, are scheduled to begin in 2023, though the project has been plagued by delays. Qatar, which owns 49.9% of the company that produces the tanks, has promised to purchase 100 of them. Turkey also plans to build its own submarines, unmanned attack helicopters and fighter jets.

The industry has a bright future, but Mr Erdogan's dream of self-sufficiency is unrealistic. Designing and building components like aircraft and naval engines, advanced sensors and microchips is prohibitively expensive, says Arda Mevlutoglu, a defence analyst. Foreign sanctions, which have inspired the industry's growth, are also holding it back, disrupting procurement and exports. The most notable example is Turkey's planned sale of 30 attack helicopters to Pakistan. The deal, worth \$1.5bn, is nearing collapse because America has re-

fused to grant Turkey an export licence for the chopper's American-made engine.

The biggest hole is the one left behind by the 100 F-35s Turkey ordered, but will not receive. Aboard the *TCG Anadolu* or elsewhere, Turkey's drones are no substitute for the advanced American fighter jets. Unfortunately for Ukraine, they are also no match for Russia's army. The TB2s could land a few blows in the war's early stages, says Michael Kofman of CNA, an American think-tank, but would easily be knocked out of the sky or destroyed on the ground by Russian air defences and warplanes. Conflicts with Russian proxies allowed Turkey to show off its new weapons. A Russian war with Ukraine would be a vastly tougher test. ■

Election in Castile and León

The few, the proud

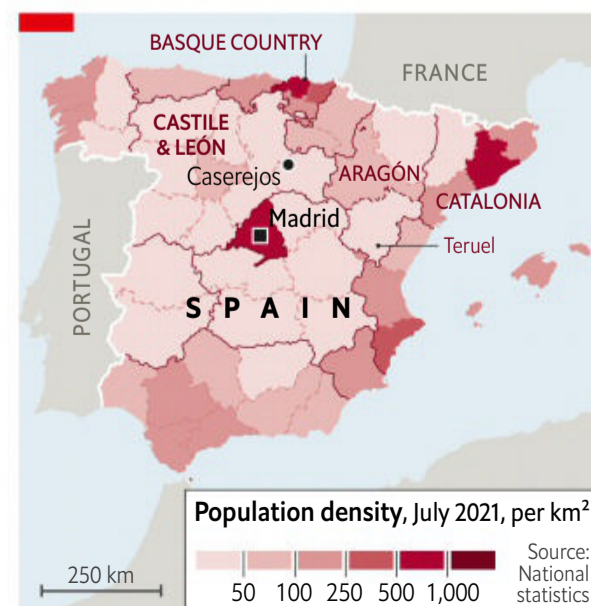
CASAREJOS

Spain's local parties fight depopulation

"I HAVE FOUR children," says Blanca over a midday glass of wine with olives. "None of them lives here." There are 156 residents registered in Casarejos, down almost half from 25 years ago. Locals differ on how many children live in the village, but all use just one hand to count them.

Blanca is complaining to Laura Gil, a candidate for Soria Ya ("Soria Now") in the regional elections in Castile and León, scheduled for February 13th. Soria Ya is a new party that will compete only in Soria, one of the region's nine provinces. Allied groups will run in other provinces, too, unified loosely under the banner of España Vacuada, or "Emptied Spain".

This slogan is a twist on "Empty Spain", a book published by Sergio del Molino, a journalist, in 2016. The parties say the countryside is not simply empty, but is be- ▶▶



ing emptied by neglect that gives young people no choice but to leave in search of work and public services. The grouping was inspired by Teruel Existe (“Teruel Exists”), a party opposing depopulation in Teruel province in Aragón, next door to Castile and León. It surprised observers by coming first in Teruel in national elections in 2019, giving it an MP. That proved important: Spain’s minority government needed small parties to help install Pedro Sánchez as prime minister. Teruel Existe parlayed that into more attention for depopulation. The environment ministry is now the Ministry for Ecological Transition and the Demographic Challenge.

Soria Ya wants to imitate that success in Castile and León, where the regional president, Alfonso Fernández Mañueco of the conservative People’s Party (PP), has called early elections. Many think he did so to pre-empt the growth of España Vacía, and to repeat the PP’s trouncing of the left last year in Madrid. If so, he may have miscalculated. Mr Mañueco is not particularly popular, and polls show Mr Sánchez’s Socialists running a close second, even though Castile and León is normally a PP fief. The new parties are also doing rather well, with Soria Ya expected to win in its province. Even if, as is likely, the PP wins the most seats in the region overall, it has little chance of securing an outright majority. That means it will have to team up with one or several other parties to form a regional government, perhaps including España Vacía.

Soria Ya says it will work with any party that promises to carry out its agenda. Its programme is almost heartbreakingly specific: add a new radiography clinic to the local hospital, upgrade a local road to a motorway and so forth. Mr Mañueco, apparently daunted by the strength of the new provincial parties, has compared them disparagingly to separatists in the Basque Country and Catalonia, who trade their occasional support of Mr Sánchez in Madrid for favours.

Mr Mañueco has also tried to sound like a friend to farmers, attacking a minister in the national government for criticising “megafarms” as bad for the environment and animal welfare. But farmers are less than a quarter of the rural population, according to Vicente Pinilla of the University of Zaragoza. Country-dwellers want jobs, not hymns to tillers of the fields.

In fact, Mr Pinilla argues, despite España Vacía’s sudden prominence, depopulation is nothing new. Spain’s countryside emptied later and faster than in other countries in Europe. But young people leave farms in every fast-growing and urbanising country. In Spain the most rapid exodus was in the 1950s and 1960s, not recently. In fact, Spain’s rural population has nearly stabilised. But that masks geograph-



More steeples than people

ical disparities: in provinces with a thriving capital city, people stay in the surrounding countryside. In those with a capital that can offer them little, they flee. Teruel Existe did best in atrophying Teruel city, Mr Pinilla points out, rather than the surrounding countryside.

Ángel Ceña, Soria Ya’s leader, argues that the party is already a success, however it performs. When the Socialists and PP announced their platforms in Castile and León, they promised to grapple with depopulation, a subject he says they paid less attention to during the last election in 2019. In Casarejos, Blanca is not sure whether she will bother to vote. But she gives Ms Gil and Soria Ya credit for one thing: “You’re the only ones who come here.” ■

France’s youth vote

From Le Pen to Mélenchon

REIMS

The unlikely preferences of young French voters

“SHE’S THE best!” declares Adrien, a 20-year-old student, cradling a French tricolore flag. He is waiting in the winter sunshine outside a trade hall on the outskirts of the cathedral town of Reims, where a rally for Marine Le Pen is about to start. “Before making decisions,” explains Adrien, “she asks people what they think, how they live, to find the best solution to their problem.” Alexandre, a fellow student, agrees. The nationalist-populist candidate at April’s French presidential election, he adds, is focused not only on “braking mass immigration” but also on the cost of living. As for Emmanuel Macron, the president, “We detest him.”

Young French voters, like those in ma-

ny countries, seem set to vote differently from their elders. Yet in France the split is not simply that youth are more liberal and retirees more conservative. One surprise is the enduring popularity of Ms Le Pen among the young. Only 8% of over-70s say they will back her, according to Ipsos, a polling group. Her share of the vote among under-25s is double that.

Some pensioners share the fears of immigration that Ms Le Pen stirs up. Indeed over-70s are keen on Eric Zemmour, a hard-right candidate, former television commentator and polemicist, who vows to “save France” from an immigrant invasion. But they recall too that in 2017 Ms Le Pen vowed to take France out of the euro—a pledge the candidate has since given up, but which made retirees edgy about their pensions. Younger voters seem as drawn to Ms Le Pen’s promise to help with the cost of living as to her flag-waving. She promises to abolish income tax for the under-30s, as well as to cut VAT on petrol and energy bills and lower motorway tolls.

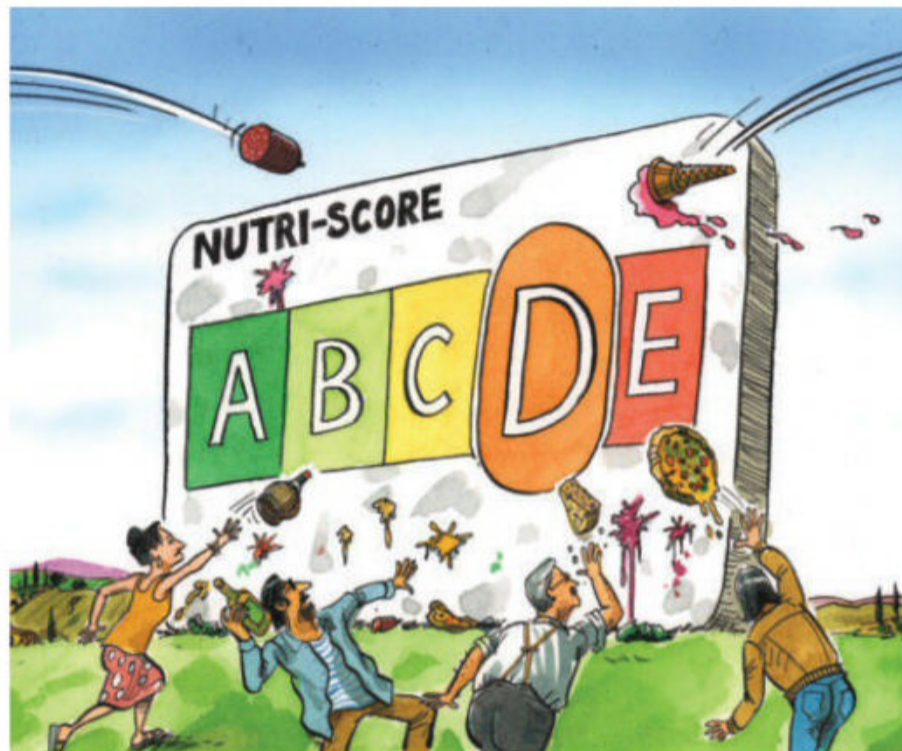
The Greens’ Yannick Jadot gets some youth support. So, more improbably, does the hard left’s Jean-Luc Mélenchon. An early convert to social media, he held rallies in 2017 which featured himself in one town and his holographic image in another. This year the 70-year-old plans to repeat the same trick. Last month in the western city of Nantes Mr Mélenchon held an “immersive and olfactory” meeting, complete with the sounds and smells of the sea. Like Bernie Sanders in America, he has a grandfatherly appeal and a cult following.

Among the leading candidates to make the run-off stage of the two-round election, the one the young favour least is Valérie Pécresse. Fully 28% of over-70s plan to vote for the centre-right Republicans’ nominee, a fiscally prudent cultural conservative. Her plans to raise the retirement age to 65 no longer concern this age group; her family values are reassuring. Only 8% of under-25s, however, say she will get their vote. The more socially liberal among them recall that Mrs Pécresse voted against gay marriage in parliament in 2013.

As for Mr Macron, he does less well among the young than in other age groups. But past policies are beginning to bring rewards. Thanks to a big expansion of apprenticeships, youth unemployment has fallen to its lowest level for almost 15 years. The president, who has a distant relationship with youth culture, has tried to engage with it a bit more. Last year, to the consternation of traditionalists, he invited Mcfly and Carlito, two popular YouTubers, to the Elysée palace, where he took part in a game of “true or false”. The young may not be his biggest fans, but neither does anyone else eclipse him in their eyes. Among those who have decided on their vote, Mr Macron does better than any other candidate. ■

Charlemagne | Bunfight!

A European battle over food labelling



THE TREATY of Versailles, signed in 1919, is usually remembered for the humiliating punishments it heaped on Germany. But flip through the pages of the accord that ended the first world war and a lesser-known aim of the Allied powers appears: the protection of champagne. Article 275 ensured that never again would French palates have to suffer the infamy of tasting German-grown grapes passed off as Gallic fizz. Among diplomats and historians the treaty is not considered one of Europe's finest hours, given its role in sparking the next world war. Pampered farmers are perhaps the only ones who remember it more fondly.

A century later, food remains the stuff of high politics in Europe. This year marks the 60th anniversary of the EU's Common Agricultural Policy, which still manages to hijack a third of the bloc's budget. Trade deals wanted by some member states are routinely scuppered to protect farmers in another (usually France). Now a new bunfight is gripping the continent. The European Commission in Brussels will this year propose rules that would require the nutritional qualities of all foods to be displayed on the front of their packaging. The idea is to tip off shoppers about what makes them fat. But the measure, backed by nutritionists, is being attacked by its opponents as nothing less than an assault on the European way of life.

Nearly all grub sold in Europe has had to divulge its nutritional qualities (or lack thereof) since 2016. But the nagging only goes so far. The information is found on the back of the pack, written in a font size usually reserved for the finer points of insurance contracts. In 2017 French food scientists developed a system that distilled that hard-to-read data into a simple "Nutri-Score". A standard label placed where consumers can see it would provide colour-coded grades from an acceptable A to an execrable E. Public-health officials and consumer groups laud Nutri-Score's simplicity and have pushed for its wider use. Backed by authorities in France, Germany and Spain among others, the system has been voluntarily adopted by many retailers. The commission thinks something like it should be mandatory across the EU.

The sensible push to steer consumers away from unhealthy food has run into a problem inherent in any regulation designed for 27 countries: what is backed by most ends up raising the hack-

les of a few. In this case the problem is Italy. Nutri-Score is unkind to many staples of Italian cuisine. A meal of prosciutto, gorgonzola and tiramisu turns out to be entirely at the wrong end of the spectrum. Even olive oil, the elixir at the heart of the country's famed Mediterranean diet, gets only an amber light from the grading system. For Italians, ever alert to the possibility that condescending northerners are holding them to an unreasonable standard, this is provocation enough. How can their food be bad when Italy has among the lowest adult obesity rates in the rich world?

Politics have helped turn the issue into a matter of national pride in Rome. Populists rail against what they call a senseless system cooked up by bloodless, tasteless technocrats. Matteo Salvini of the far-right Lega party dismisses Nutri-Score as fit only for joyless acolytes of alcohol-free wine, fake meat and edible insects. Others discern a menace to Italian agriculture, designed to benefit multinationals. Mario Draghi, Italy's prime minister and formerly chief of Europe's central bank, is a technocrat himself. Yet to hold his fractious coalition together, he has had to make disparaging comments about Nutri-Score, too.

A crude lobbying operation complete with dodgy websites mimicking public-health agencies has popped up in opposition to Nutri-Score. It contrasts the terrible grade given to parmesan (E) with the passing mark of Coke Zero (B). How can two-thirds of the products served by KFC—a chicken outfit that owes its very existence to crispy-fried crust—be classified as no worse than mozzarella? The food-grading endeavour is painted as a ploy to undermine ancestral farming products: it is far easier to change the recipe for Coco Pops (whose formula was recently tweaked to achieve a B) than salami (a flat E).

Nutri-Scorers point out that makers of processed foods, too, have lobbied against stricter labelling (though a few now endorse it, including Kellogg's, which makes Coco Pops). Serge Hercberg, an academic who helped devise the scheme, describes it as an obvious health measure. Finding skewed comparisons is easy, but foods should be compared to alternatives in the same category: one cannot replace a can of Coke with a cup of olive oil (which, he notes, scores better than butter). Italy has a child obesity problem, and the Mediterranean diet it defends originally included rather more fruit and vegetables than makers of cured ham would like to admit. "Even if foods are ancestral, it does not mean they are good for you," Mr Hercberg says. As for KFC, the parts of its menu that score well are wholesome: a side of cherry tomatoes, for example.

Food for thought

The Italian griping has caught on. Farmers in France and beyond worry bad scores for their products will crimp sales. Agriculture ministries are being coaxed to pare back Nutri-Score even where it has already been adopted. A proposal to create a special category for alcohol (a black F, sadly) is being used to galvanise more opponents. Italy has developed an alternative labelling scheme so confusing that it seems aimed at making a food's healthiness utterly unknowable. And national governments will have plenty of opportunity to hollow out the commission's proposals, as they did when the issue of food labelling last came up a decade ago.

They should not, however. For all the raucous disagreement, Nutri-Score's fans and detractors are not so far apart. Italians are slim despite all that pecorino and gelato because they know these treats should be enjoyed in moderation. Professor Hercberg and others say much the same thing: everything is fine, if you adjust the quantities. Even a glass of Italian wine, perhaps. *Salute!* ■



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Law and order

What's going on here, then?

London's main police force is failing on several fronts. But it seems impervious to pressure

BRITAIN'S LARGEST police force is staggering from crisis to crisis. Over the past few months much awful behaviour by Metropolitan Police officers has been uncovered, with more almost certain to come out. The force has enraged MPs by wading clumsily into politics. Its attempts to clean house seem desperate. In early February Dame Cressida Dick, the Metropolitan Police commissioner, wrote to every officer, telling racists, homophobes and sexists to "leave now".

The Met is failing on three fronts. It has been unable to root out prejudice and misbehaviour; it has lost the confidence of many Londoners; and it has offended politicians. Each failing compounds the others and makes them harder to fix. The Met's size and complex role as a city police force with national responsibilities make reform both urgent and almost impossible.

The cultural crisis at the Met centres on what criminologists call a "signal crime"—an enormity that suggests something has gone badly wrong. In March 2021 an officer

abducted, raped and murdered Sarah Everard, a woman he had never met. It transpired that he had previously been accused of indecent exposure and that colleagues had nicknamed him "the rapist". Two inquiries have been launched, into how the Met hired him and how deep misogyny runs in the force.

Other examples of bad behaviour have piled up. Last December two former officers were imprisoned for sharing pictures that they had taken of murdered sisters (as they put it, "two birds"). A police watchdog said it might reopen an investigation into why officers failed to realise that four gay men found dead in 2014 and 2015 had all been killed by the same man, and whether homophobia clouded their judgment. In January the Met apologised to a female academic who had been abused by officers during a strip-search nine years earlier.

The most alarming episode, for what it suggests about the extent and resilience of a dire culture in the Metropolitan Police, was revealed on February 1st. After a long

investigation, the Independent Office for Police Conduct reported that officers in Westminster had joked for years about raping women and turning Africans into dog food. Others had complained, only to be ignored or humiliated. Women officers were treated as the "weary female" and told to "play the game or stay quiet".

"All organisations have cultures, but none are so strong as policing cultures," says Sarah Charman, who studies coppers at the University of Portsmouth. Officers are pushed to band together and conform because their safety on the street depends on knowing that other officers have their backs. If a police force or station has a racist, misogynistic culture, officers are under huge pressure to take part or shut up.

The Met has hired more women and ethnic minorities over the years. That may have diluted the old canteen culture, but clearly not enough. Nor do cultural training or high-minded missives from senior officers seem to have achieved much. Managers sometimes go through the motions of investigating misconduct while making clear that they do not believe in the process, says a former Met officer: "Police officers and schoolchildren are two groups who know whether people are being serious or not."

Londoners' faith that the police treat everyone fairly has diminished in the past two years, possibly due to the murders of George Floyd in America and of Sarah Eve- ▶▶

ward (see chart). But that is only one aspect of a growing confidence problem. Over the past five years Londoners have become less convinced that the police do a good job locally. The share of crime victims who are satisfied with their treatment has slid, too.

A combination of austerity and changing strategy is probably to blame, says Andy Higgins of the Police Foundation, a think-tank. Police in London (and elsewhere) have focused more on investigating domestic violence, child abuse and cyber-crime, and less on solving neighbourhood problems. They are less visible. The number of Police Community Support Officers, who walk the streets but cannot use force, has fallen by half since 2012. To save money, in 2018 the Met reorganised itself, going from 32 borough command units to just 12 “basic command units”. That seems to have distanced officers from the public: the larger BCUS cover more civilians than some county police forces. The recent scandals are all the more damaging because Londoners have fewer good experiences of policing to set them against.

The Met’s political adventures have rubbished its reputation further. After weeks of refusing to investigate reports of parties in and around Downing Street during covid-19 lockdowns, in January it suddenly announced reversed course. It also insisted that a full report into the parties by Sue Gray, a civil servant, not be published until its inquiries were over. MPs complained of a “stitch-up” and said the Met was “usurping [Parliament’s] position”. But its inquiry has also shielded the force itself. The government cannot meddle with the coppers who are investigating it.

It is not certain who can push the Met around. Dame Cressida answers to both the mayor of London and the home secretary. “It’s not clear who the dominant boss is,” says Tim Newburn, a police-watcher at the London School of Economics. Both politicians—one Labour, the other Conservative—have let it be known that they despair of the force. Neither seems able, or willing, to do much to fix it. ■

Time for reinforcements

Britain, share of Londoners agreeing, %



Source: MPS Public Attitude Survey



Northern Irish politics

Dashed promises

BELFAST

Can devolution in the province survive the latest collapse?

NORTHERN IRELAND’S most famous exports include Rory McIlroy, George Best, Van Morrison—and peace. Since the Good Friday Agreement of 1998, it has been marketed around the world as a template for ending seemingly intractable political violence. And if peace is defined as the absence of violence, it has been remarkably successful. An average of 124 deaths from political violence every year during the three decades of “the troubles” fell to just eight a year in the two decades since. But sectarian divisions remain bitter and the centrepiece of the deal, a power-sharing government involving almost every shade of political opinion, has failed.

Since the devolved administration was set up in 1999, it has been absent for 37% of the time. Now it is absent again. On February 3rd Sir Jeffrey Donaldson (pictured) pulled his party’s first minister out of government, collapsing the administration. Sir Jeffrey, leader of the Democratic Unionist Party (DUP), the main party supporting Northern Ireland’s status within the United Kingdom, said the move was in protest at the Northern Ireland protocol, the part of the Brexit deal that prevents an Irish land border by creating a customs border between the province and Great Britain.

The DUP had initially, albeit reluctantly, accepted the protocol. Its voters, however, are less keen. An election to the devolved government looms in May, and a recent poll put support among unionists for the protocol in its current form at just 2%. The day before the DUP walked out, one of its ministers ordered civil servants to stop

some of the border checks. They refused, fearing that the order was illegal. A court injunction then suspended the order until a full hearing next month.

In the early years of the devolved administration, whenever it collapsed the British government would appoint its own ministers to run government departments. But in 2017, when a scandal relating to bungled green incentives brought the administration down, local civil servants were given the job instead. The results were messy. They kept most government services functioning day to day. But untaken strategic decisions piled up.

Eventually, public anger over a nurses’ strike together with poor election results for both Sinn Fein, the biggest of the parties that seeks a united Ireland, and the DUP forced the two parties to govern together again from January 2020. But then the pandemic exposed their ability to find rancour in the unlikeliest areas. The Sinn Fein deputy first minister went on television to denounce the unionist health minister’s plans. Senior DUP figures blocked pandemic restrictions by using a veto meant to protect Protestants or Catholics from discrimination.

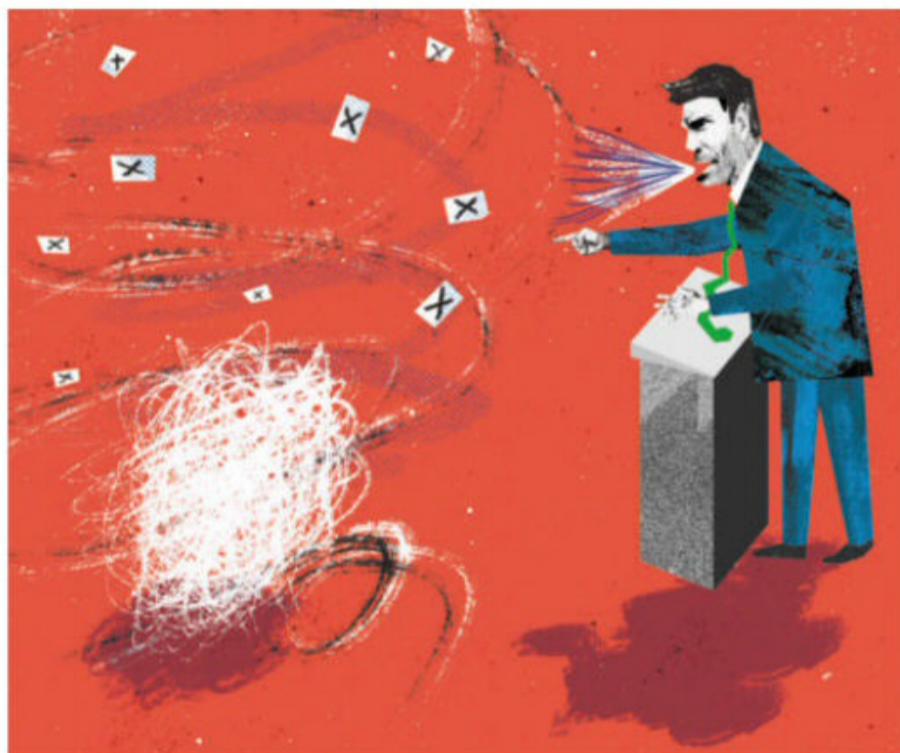
Many within Stormont, home of the devolved administration, believe that the latest collapse is terminal. That is probably exaggerated. For the DUP and Sinn Fein the alternatives—direct rule from London or no government at all—are less palatable than having some power themselves.

But there may well be another prolonged period without a devolved government. Sinn Fein is expected to emerge from the elections in May as Northern Ireland’s largest party for the first time, and many in the DUP say they will refuse to enter the executive as junior partner with Sinn Fein, which was formed as the political wing of the IRA. Moreover, the DUP has said its veto on devolution will end only if the Irish Sea border is removed. But talks with the EU will at most reduce the border’s impact, and even if the British government were to override the protocol unilaterally, as Boris Johnson again hinted on February 9th, Sinn Fein would then probably wield its veto instead.

And all the while paramilitary groups continue to act in the shadows. Indeed, their clout seems to be growing. Six days before Sir Jeffrey brought down Stormont, he met loyalist paramilitary representatives, and was reportedly told to collapse devolution. In 1983, when republican gunmen burst into a Protestant church and murdered three elders, or in 1994, when loyalist gunmen murdered six pubgoers as they watched a football match, the prospect of paramilitaries restricting themselves to political lobbying would have seemed heavenly. But in 1998, Northern Ireland was promised so much more. ■

Bagehot | The rise of unpopulism

Why Tories give the people what they do not want



BORIS JOHNSON'S attack had an alliterative snap. At the despatch box, the prime minister dismissed Sir Keir Starmer, Labour's chief and a former barrister, as "a lawyer, not a leader". The line had one flaw: beyond Westminster, lawyers are liked. No parent ever complained about a child becoming a solicitor. Indeed, voters prefer politicians to have been lawyers rather than journalists (like Mr Johnson) by three to one, according to YouGov. People who dislike lawyers include government ministers, who find their best ideas squished due to illegality, and divorced middle-aged men. Westminster has lots of both. And they presume that everyone else feels the same way.

A misjudged attack line reveals a peculiar transformation in the Conservative Party. At the start of Mr Johnson's tenure, it thrived with a populist message, pledging to implement the will of the people against the wishes of an out-of-touch elite. Now its MPs project their own neuroses, fetishes and obsessions onto an imagined people. They invoke the will of the people to pursue policies that are, in fact, unpopular. MPs slate footballers, fight culture wars and attempt to thwart green policies in the name of voters who prefer the opposite. Call it unpopulism.

The first signs of unpopulism emerged during Britain's departure from the European Union. Politicians of all stripes argued over minutiae such as data-protection rules and phytosanitary standards. Beyond broad principles, few ordinary people cared. Yet in that debate, proverbial voters with a striking tendency to repeat MPs' own views on, say, membership of the customs union, kept cropping up. The general election in 2019 was won by the party that pledged to make the topic go away.

Confusion between correlation and causation embedded unpopulism in the Conservative Party. Mr Johnson remains in office because Tory MPs think he has a unique ability to win over places that never voted Conservative before 2019. In fact, Mr Johnson's personal ratings in these "red wall" seats were lower than Mrs May's in 2017. Dislike of Jeremy Corbyn, Sir Keir's far-left predecessor, rather than love of Mr Johnson handed the Conservatives victory. Mr Johnson stays in power despite wretched ratings thanks to the endurance of that myth. He owes his job to the will of Westminster, not the will of the people.

What preoccupies Tory MPs does not always preoccupy voters. The culture war is one example. In Parliament Jacob Rees-Mogg, the new minister for "Brexit opportunities", lamented the "charge of the woke brigade". Any voters who chanced to be listening might well have been confused. According to a poll by YouGov, 59% have no idea what "woke" means. Lee Anderson, an MP in Ashfield, a former mining constituency, boycotted the Euro 2020 championships in protest at England's footballers taking the knee to protest against racism. It was a lonely boycott. Polls showed that about two-thirds of England fans supported the players.

In general, MPs still view Britons as liberty-lovers. There is a cross-party consensus against mandatory ID cards. Britain is not a "papers, please" society, runs a common refrain. In fact, Britain is a "Papers? Please!" society: polls show overwhelming support for ID cards. In the minds of Tory MPs, liberty extends to the Englishman's inalienable right to drive where he pleases. When local councils started to create low-traffic neighbourhoods during lockdown, those MPs led the attack. But according to Opinium, a pollster, voters support low-traffic neighbourhoods by two to one.

In other areas, unpopulism is just beginning. On environmental policy, increasing numbers of Conservative MPs, such as Steve Baker, an influential backbencher, worry that attempts to reach "net zero" will go down badly with the red wall. A growing crowd of right-wing MPs, columnists and think-tanks, such as Net Zero Watch, are pressing for a referendum on the topic. Yet support for green policies is roughly the same across the country. How to pay for them is a matter of debate, but there is near-universal agreement among voters about carbon neutrality as a target.

Part of the cause of unpopulism is anthropological. After an electoral realignment, politicians do not necessarily understand their new voters. Tory ministers speak to their new voters like nervous British holidaymakers in a Spanish restaurant, loudly and slowly ("We...Would...Like...To...Level...You...Up"). The existence of a large, prosperous middle class outside the south-east is little understood in SW1. Instead, caricatures of the red wall are given credence: a land populated entirely by old, working-class men. It is much easier for politicians to project their own views onto voters than to learn what voters actually think.

Unpopulism is to be expected when old methods of gauging public opinion have failed. Tabloids have become a poor guide. In the 1990s British newspapers sold almost 15m copies each day. Now they muster barely 3m between them. Their remaining readers are much older than the average Briton, with a worldview to match. That tabloids still hold any influence at all is due not to their connection with voters, but to their hold over the elite. Mr Johnson and his team pore over them daily. A front page may not be read by many, but will be covered by the BBC.

Vox unpopuli

Unpopulism can play out one of two ways. Either its exponents continue to obsess over their own interests, rather than voters'—that is, until they are removed from office. Or it can lead to surprising, spectacular electoral success. What is unpopular today can be popular tomorrow. Brexit was once an eccentric hobby of a few Europhobic Tories, who campaigned for decades in the name of the common man. Eventually, the common man caught up. The rewards were enormous—for Brexit's proponents, if not for the country. So the unpopulists will keep going in the hope that another such wild card comes up trumps, whether an end to net zero or the waging of a culture war. Unpopulism is here to stay. ■



Geopolitics

How Russia revived NATO

BERLIN, BRUSSELS, KYIV, MOSCOW AND PARIS

But might Ukraine pay the price of European diplomacy?

Vladimir Putin's giant oval table in the Kremlin is as extreme as it is kitsch. Sitting far from foreign visitors may be his way of social distancing. But it also betokens the gulf that separated Russia's leader from his guest, Emmanuel Macron of France. It may also illustrate what diplomats say is Mr Putin's worrying isolation from the world. None can claim to read his mind as he masses some 130,000 troops on the borders around Ukraine. Is he about to launch the biggest war in Europe since the fall of the Berlin Wall? Or is it all a big bluff?

On February 7th Mr Macron was the first heavyweight Western leader this year to visit Moscow to divine Mr Putin's intentions. Before arriving the French president said he did not believe in "spontaneous miracles". After five hours of talks, there was no clear outcome. Visiting Kyiv the next day, Mr Macron said Mr Putin had pledged that Russia "would not be the cause of an escalation" on the border. The Kremlin denied this, and brushed off the notion that Mr Macron could negotiate anything. "France is a NATO member, but

Paris is not the leader there. A very different country runs this bloc," said Dmitry Peskov, Mr Putin's spokesman. "So what deals can we talk about?" In sum, the only interlocutor that matters is America.

Mr Putin, for his part, launched into yet another blistering attack on NATO. And Ukraine, he said, must abide by the so-called Minsk protocols of 2014-15—or, rather, Russia's interpretation of them. "Whether you like it or don't like it, bear with it, my beauty," the Russian leader said crudely, perhaps quoting the lyrics of an obscene song about rape and necrophilia. Mr Macron has long wanted warmer relations with Mr Putin. The danger, if his high-stakes diplomacy goes wrong, is that he will be seen as a dupe or, worse, as an accessory to Russia's violation of Ukraine.

Yet there is little alternative to talking to Mr Putin. Russia has assembled the densest concentration of military firepower that Europe has seen in decades. Ukraine is surrounded on three sides. Russian amphibious assault-ships are gathering in the Black Sea. On February 5th Amer-

ica said Russia had deployed 70% of the force it would need to invade Ukraine: an attack could start "any day". NATO worries that large military exercises in Belarus, starting this week, may provide cover for an assault, perhaps alongside a nuclear exercise. Nuclear-capable Russian bombers have flown patrols close to Poland.

NATO will not fight for Ukraine. Instead America and Europe have mustered a three-pronged response: deterrence, by arming Ukraine and threatening unprecedented economic sanctions if Russia attacks; reassurance of allies by deploying extra forces to central and eastern Europe; and diplomacy to stay Mr Putin's hand.

Olaf Scholz, Germany's new chancellor, will visit Kyiv and Moscow next week on the heels of Mr Macron (see Europe section). There has already been a meeting of the "Weimar triangle" (the leaders of France, Germany and Poland). The "Normandy" format (officials from France, Germany, Russia and Ukraine) was set to confer on February 10th. If successful, this may be followed by a Normandy summit. As long as Russia keeps talking, the Europeans all hope, it will not start shooting.

Mr Macron has greater ambitions. With the departure of Angela Merkel, Germany's veteran chancellor, he can claim to be Europe's senior statesman. Beyond averting war, he wants to settle the status of Ukraine, shove Europe back onto the diplomatic stage and ultimately establish greater "European sovereignty" and a new ▶▶

▶ security order on the continent.

On the military stand-off, Mr Macron warned of the risk of “incandescence”. But French and German diplomats have been warier of declaring that Russia’s build-up signalled an “imminent” invasion, as America and Britain have tended to argue.

European officials now espy a narrow path to avoid conflict. It passes through the Normandy format, the one forum where Russia and Ukraine can negotiate directly. For all of Mr Putin’s demands about halting NATO’s eastbound expansion and even rolling back its current military deployments, what most seems to vex him is Ukraine. The country has shifted towards the Western camp since 2014, when a revolt ousted its autocratic Moscow-backed president, Viktor Yanukovich. This prompted Mr Putin to annex Crimea and foment a separatist revolt in the eastern Donbas region.

At the barrel of a gun Petro Poroshenko, Ukraine’s next elected president, accepted the Minsk accords. These were deliberately vague. On the security side they mandated a ceasefire, a withdrawal of heavy weapons from the front lines, an exchange of prisoners and the removal of “foreign troops”, meaning Russians. On the political side Ukraine agreed to make constitutional changes to decentralise power, hold local elections and give Donbas a special status. Ukraine would then be allowed to regain control over its border.

How “special” that status would be was left undefined, as was the precise sequence of steps and the question of whether the 1.5m people of Donbas displaced by the conflict should have a say in its future. In effect, Ukrainian law would not apply there. Donbas would have its own local militias. In the eyes of Russia the purpose of Minsk was to create a Trojan horse to give it control of Ukraine.

Mr Poroshenko’s attempt in 2015 to push a mild version of the constitutional changes through the Rada (parliament) prompted fierce protests from nationalists, resulting in the death of several national guards. But defying expectations of its collapse, Ukraine muddled through, ducked and dodged, survived and consolidated. It stabilised its economy and built up and modernised its army. As the first line of its national anthem goes, “Ukraine is not yet dead.” Though he could not implement the Minsk accords, Mr Poroshenko could not ditch them either. As the Ukraine crisis flares again, European leaders are urging his successor, Volodymyr Zelensky, to re-engage with Minsk.

But implementing the accords has become a lot harder. Russia has tightened its grip over the separatist territories. It has built up a force estimated at 40,000 men, eliminated some of the unrulier commanders and installed its own leaders. It has distributed hundreds of thousands of

passports to residents of Donbas, many of whom voted last year in Russia’s parliamentary elections.

Bringing Donbas back into Ukraine on Russia’s terms could spell the end of Ukraine as a sovereign state, or so many Ukrainians fear. One worry is that constitutional change leading to “federalisation” would give Donbas—and thus Russia—a veto on Ukraine’s West-leaning policy, notably its ability to join NATO. Another is that it will corrode the country from within, by giving Russia more ways to meddle in its affairs. As *Zerkalo Nedeli*, an online Ukrainian weekly, points out, forcing Ukraine to enact Minsk is “a slow and painful execution—not by shooting, but by injecting it with lethal poison”. With his own popularity rating dropping below 25%, an energy crisis looming and the cost of living rising, Mr Zelensky would face mass protests if Ukrainians see it as a sell-out.

Avoid the Finnish line

Yet some veteran Ukrainian politicians, including Arsen Avakov, a former interior minister, and Mr Poroshenko, believe that Ukraine is stronger than it may appear. They think Mr Putin would struggle to force Ukraine to surrender its sovereignty. After nearly eight years of war Ukraine’s army, one of the largest in Europe, is hardened. This, along with firmer backing from abroad, may explain why Ukraine’s elite is relatively calm. “My message is: don’t trust Putin and don’t be afraid of Putin,” says Mr Poroshenko. “Strength and resolve is the only language that works.”

Ukraine may be able to cope with a version of Minsk that falls short of Mr Putin’s demands. It could, for example, agree to negotiate with the newly appointed heads of Donbas, provided that Russia removed its proxy forces. Or it could agree to hold elections and dress up decentralisation, which has already taken place in the rest of

Ukraine, as the “special status” for Donbas, as long as Ukrainian laws apply. In the meantime Mr Putin may calculate that waiting for Mr Zelensky to falter and for the economic crunch to take effect may be less dangerous than fighting. Russia would need at least 700,000 men to capture and occupy Ukraine, some analysts reckon.

A peculiarity of the crisis is that, even though no one in NATO thinks Ukraine is fit to join the alliance soon, if ever, the body cannot be seen to close its “open-door” policy in the face of Russian threats. Some European diplomats think the circle could be squared if Ukraine itself were to declare its neutrality, as Austria and Finland did after the second world war. Asked about “Finlandisation”, Mr Macron let slip that it was “one model on the table”, but insisted that creative negotiators would have to “invent something new”. Russian diplomats have said they might entertain the idea.

The trouble is, Ukraine has written into its constitution the ambition to join NATO. Moreover, Finland and Sweden are as close to NATO—and as interoperable with it—as it is possible to be without actually being members. Indeed, Russia’s brutish behaviour is kindling a debate within both countries about joining. What is more, Finland, Sweden and Austria are all members of the EU, which Mr Putin dislikes, too.

The Normandy process gives France and Germany a chance to claim a place at the talks with Russia, which have hitherto been dominated by America and NATO, if only because Russia submitted new treaties to those two entities. The French, although they are members of NATO, have unsurprisingly bristled at being merely “debriefed” by the Americans.

Two years ago Mr Macron had announced the “brain death” of NATO due to a double malady: under Donald Trump America was no longer willing to guarantee Europe’s security; and some members, ▶▶



▶ such as Turkey, were acting unilaterally in Europe's "neighbourhood" without consulting their allies.

Since then, however, NATO has revived admirably. Under President Joe Biden America sounded the alarm about Russia's build-up and co-ordinated the Western response. "Putin has single-handedly given NATO a vitamin injection," says Wolfgang Ischinger, chairman of the Munich Security Conference, an annual transatlantic talkfest that begins on February 18th. NATO's three decades of angst about its role after the end of the cold war has been dispelled. Having performed "out of area" operations in the Balkans and counter-insurgency in Afghanistan, it is going back to basics: the territorial defence of allies. The theological rivalry between institutions in Brussels over whether the EU should have an autonomous defence capability has for the moment been stilled.

In this crisis the EU has been sidelined, perhaps inevitably. Ever since France blocked the idea of a European Defence Community with a pan-European army in 1954, European integration has been pursued mainly by economic means. Yet France now pushes hard for the EU to build its own military capacity.

The brain comes alive again

Atlanticists have long worried that the EU would at best duplicate already scarce military capabilities and at worst split America from the EU. The ensuing compromises have created an alphabet soup of European structures and initiatives but little extra military muscle. For instance, since 2007 the EU has had two battlegroups of about 1,500 soldiers each, supposedly ready to deploy at short notice. It has never used them, although it has mounted other ad hoc missions. In fending off Russia it is NATO members, individually and collectively, including France, that have taken up the cudgels to send troops to reinforce their eastern European allies.

"The European Union cannot defend Europe," says Jens Stoltenberg, NATO's secretary-general, noting that "80% of NATO's defence expenditure comes from non-EU members". NATO's military heft derives mainly from American muscle. But it is more than that, Mr Stoltenberg says. Britain, Iceland and Norway, which are not in the EU, are vital to securing Europe's northern flank, along with Canada. Similarly, despite tensions with its NATO allies, Turkey supports Ukraine and anchors the alliance in the south-east. In return, NATO helps give America an unrivalled network of friends and allies. Europe and North America, Mr Stoltenberg says, must stand in "strategic solidarity".

But for all of NATO's primacy, it cannot solve the problem of Russia. To begin with, the alliance does not include Finland and

Sweden. Though they are not covered by NATO's Article 5, which states that an attack on one ally is an attack on all, they are nominally protected by the mutual-defence provision in article 42 (7) of the EU treaty. Moreover, it is the EU that co-ordinates and imposes economic sanctions. The EU is also vital in building a more resilient energy system, including an internal market that lets countries trade electricity and natural gas. In Ukraine the EU has provided billions of euros in aid to help reform the corruption-riddled economy.

Within both NATO and the EU there have been fewer disagreements than expected. No one questions the principle of "massive" sanctions against Russia if it invades Ukraine. After some reluctance, Mr Scholz accepts that Nord Stream 2, a gas pipeline from Russia to Germany, would be mothballed. All understand the danger of a belligerent Russia that seeks to redraw the international borders of Europe by force.

What if Russia embarks on a smaller action—something short of an invasion? And how to react to non-military "grey zone" actions, such as a cyber-attack and subversion? Mr Biden carelessly said that a "small incursion" might elicit a lesser response. But there has been little detailed discussion of such eventualities. Many allies fear that would expose divisions; a full-scale attack would probably not.

Mr Macron sees the Ukraine crisis as a chance once again to promote the idea of "European sovereignty". Some people in Paris speak of a "refounding moment". In a recent speech to the European Parliament he hailed the EU's growing sovereignty, defining it broadly, from the collective European purchase of vaccines to the eurozone's monetary policy. But he also spoke of building "a new order of security and stability" in Europe—agreed on by Europeans, non-EU NATO allies and America—and then proposed to Russia.

What he means is hazy. Some suggest



We won't be snowed over

he is referring to such things as the need for a new arms-control regime in Europe after Mr Trump's withdrawal in 2019 from the Intermediate-Range Nuclear Force Treaty and to the erosion of confidence-building measures, including advance notification of large military exercises. None of this is EU business. These points have anyway been included in America's and NATO's recent responses to Russia. What is more, the French government does not want to be drawn directly into nuclear arms-control talks with Russia, lest its own *force de frappe* is called into question.

America is back. For how long?

More than most of his predecessors, Mr Macron understands the suspicion and resentment that all this can cause. He has become more willing to consult other EU members than in the past. Jacques Chirac, who resented the EU's enlargement to eastern and central Europe, once said that governments in that region would do better to "shut up". Mr Macron, in contrast, says the "traumas" of countries that lived under Soviet rule should be understood.

Strikingly, the French are not alone in talking about European sovereignty. The idea pops up, for instance, in the coalition agreement of Mr Scholz's government. Estonians have joined the French-led European Intervention Initiative, a forum for strategic thinking and planning. So has Britain. The idea that Europeans have to do more for themselves is strengthened not only by Russian brutishness, but also by doubts about America's commitment.

Mr Trump may return to power in 2025. In any case, all recent American presidents have wanted to edge away from Europe and the Middle East to concentrate on the contest with China in Asia. Indeed, some see America's new effort in Europe as a signal not only to Russia but also to China, to deter it from attacking Taiwan.

"Do we have a Plan B for what the EU will do if NATO were to lose its main partner?" asks Mr Ischinger. "I hope it will never happen but it's a matter of serious responsibility to consider it." Without the American hegemon, though, it is still hard to envisage the Europeans mustering a coherent response. Foreign- and security-policy decisions in the EU require unanimity. Different countries' priorities diverge. Southerners want to focus on the Mediterranean and migration; easterners put Russia first.

Moreover, political and strategic instincts differ, too. France favours wielding military power but is wary of a NATO dominated by America; Germany embraces the alliance but for historical reasons is shy of using force. And Britain has left the EU entirely. "It is the European dilemma," says a German diplomat. "European sovereignty is impossible. But it has never been more necessary." ■



Television

To the victors, the scraps?

Never mind who is winning the streaming wars. Investors are terrified that the prize may not be worth it

A TEENAGED GIRL who periodically transforms into a giant panda is the improbable star of “Turning Red”, a coming-of-age movie from Disney due out next month. The world’s biggest media company, which will celebrate its 100th birthday next year, is no adolescent. But Disney is going through some awkward changes of its own as it reorganises its business—worth \$260bn—around the barely two-year-old venture of video-streaming.

So far the experiment has been a success. Its streaming operation, Disney+, initially aimed for at least 60m subscribers in its first five years, ending in 2024. It got there in less than 12 months, and now hopes for as many as 260m subscribers by that date. Bob Chapek, who took over as boss just before the pandemic, is convinced that Disney’s future lies in streaming directly to consumers, his “north star”. On February 9th the company reported that

Disney+ had added a healthy 11.8m subscribers in the latest quarter, shoring up its position as one of the most likely survivors of the ruthless contest that has become known as the streaming wars.

But doubts are surfacing across the industry about how much of a prize awaits the victors. Every year Disney and its rivals promise to spend more on content. And yet even as costs rise, the growth in subscrib-

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ers is showing signs of slowing. A realisation is setting in that old media companies are pivoting from a highly profitable cable-television business to a distinctly less rewarding alternative.

Markets took fright last month when Netflix, the leading streamer, forecast that in the first quarter of 2022 it would add just 2.5m new members. That would be the weakest first quarter since 2010, when most Netflix subscribers still got DVDs by mail. Its share price fell by more than a quarter on the news. Disney shares rallied this week following its earnings report, which soundly beat expectations. Yet in the previous quarter Disney+ had added only 2.1m members, the least in its short existence. With some exceptions, streamers’ breakneck growth seems to be slowing.

The firms blame temporary headwinds: a covid hangover, content delays and, in the case of Apple TV+, the phasing out of free trials. But some analysts are concluding that the ceiling for subscriptions is lower than they had thought. Morgan Stanley reckons Netflix will end 2024 with 260m global members, down from the investment bank’s earlier estimate of 300m. And though streamers see the potential to raise prices in rich-world markets, that will be harder in the faster-growing poor ones. In India, Netflix recently cut the price of its ▶

▶ basic plan from \$6.60 to \$2.60 a month. Morgan Stanley now expects Netflix's total revenue to grow by about 10% a year in the medium term, not the 15% or more it had previously predicted.

As revenue growth slows, costs swell. Media firms will spend more than \$230bn on video content this year, nearly double the figure a decade ago, forecasts Ampere Analysis, a research firm. Netflix's weak results came despite what it billed as its "strongest content slate ever", including "Squid Game", its most popular series, and "Don't Look Up", whose shortlisting for Best Picture on February 8th contributed to Netflix's haul of 27 Oscar nominations, the most of any studio. Disney+ is doing far better than its parent ever dreamed—but it is costing more, too. Three years ago Disney said it would spend about \$2bn on streaming content in 2024. Mr Chapek recently said the figure would surpass \$9bn.

Spending is going up partly because costs of filming have risen. The final season of WarnerMedia's "Game of Thrones", in 2019, cost around \$15m an episode, which then seemed steep. Amazon's serialised "Lord of the Rings", due in September, reportedly cost four times as much. Audiences have become more demanding. Most people used to cancel their cable-TV subscription only when they moved house, says Doug Shapiro, a former strategy chief at Turner Broadcasting System, a TV company. Now, he says, they are "becoming accustomed to churning on or off over the quality of content", signing up to devour the latest hit then cancelling their membership. Apple TV+, which has the most serious retention problem, loses a tenth of its customers every month, according to Antenna, a data firm, meaning that every year it churns through the equivalent of more than 100% of its members (see chart).

The combination of rising costs and slowing revenue growth "calls into question the end-state economics of these businesses", argues MoffettNathanson, a firm

of analysts. Netflix, the most successful of the bunch, expects its operating margin to shrink in 2022, for the first time in at least six years, to 19%; the firm has attributed this to higher spending on programming. MoffettNathanson adds that these figures flatter the company's performance. Like other streamers, Netflix amortises the cost of content over several years, when in reality most of its shows are binged in a matter of weeks. (The firm insists its amortisation schedule is based on viewing patterns.)

Streaming's pinched economics are especially galling for old media companies such as Disney, which are used to the far more profitable cable-TV business. Last year Disney reported an operating margin of 30% for its linear TV networks, a typical figure for the industry. The average American cable bill is nearly \$100 a month—and viewers are usually subjected to advertising to boot. Media firms are accelerating the decline of this profitable business by shifting their best content from cable to their streaming services. They are also forgoing box-office revenue by sending movies straight to streaming (though covid-related cinema closures have often forced their hand). Animators at Disney's Pixar studio are said to be miffed that "Turning Red" is not getting an outing at the cinema in most countries.

There is little choice but to stick with the strategy. Cable is not coming back; streaming is expected to account for half of TV viewing in America by 2024. The focus is turning to how to make the new business more profitable. Streamers increasingly drip-feed new episodes rather than dropping entire series. Bundling is becoming more common: Disney sells Disney+ along with ESPN+, its sports streamer, and Hulu, a general entertainment service that it jointly owns with Comcast, a cable giant. Apple and Amazon both package TV with other services. WarnerMedia and Discovery plan to merge; regulators have waved the deal through, the companies said on

February 9th. There may be more to come. "If Netflix is decelerating more rapidly than expected, the great streaming rebundling may need to begin sooner rather than later," writes Benjamin Swinburne of Morgan Stanley.

The hope at the big media firms is that the streaming wars will eventually claim some casualties, leaving the survivors free to raise prices and dial down spending on content. Peacock, Comcast's streamer, is trailing. ViacomCBS, which owns Paramount+, is the subject of endless takeover rumours. But even their exit would leave some determined rivals. Warner-Discovery is betting its future on streaming. Apple and Amazon are getting better at making hits, and have enough money to run at a loss for as long as they like. Disney and Netflix aren't going anywhere. It looks like being a long war, short on spoils. ■

Industrial technology

Automation Inc

HONG KONG

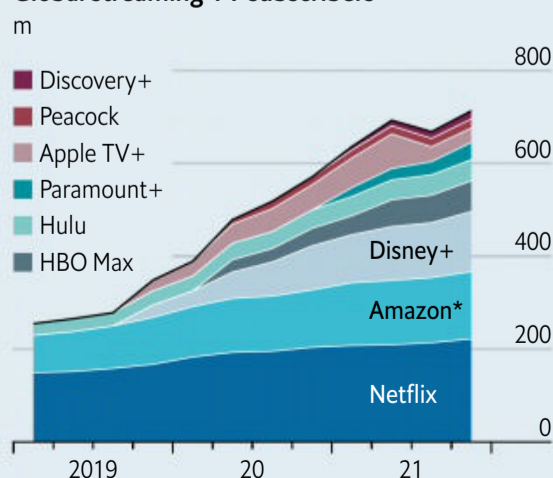
A little-known pinch-point in global supply chains

SHORTAGES AND bottlenecks have been a source of constant frustration for manufacturers around the world for two pandemic-afflicted years. For a handful of companies in the business of keeping factories running and supply chains intact, these frustrations have been a source of cheer—and profits. Japanese makers of industrial equipment, in particular, have seen orders surge as companies turned to automation, first amid the disruption wrought on human workforces by covid-19, then as a result of tight labour markets and rising wage costs.

The world's stock of industrial robots has tripled in the past decade. According to the International Federation of Robotics, a trade group, Japan furnishes 45% of new ones each year. It also produces lots of other automation equipment, from laser sensors to inspection kit. Even after the recent sell-off in tech stocks, Japan's four standout gear producers—Keyence, Fanuc, SMC, and Lasertec—are collectively worth two and a half times what they were five years ago (see chart on next page). Last year the founder of Keyence, Takizaki Takemitsu, briefly became Japan's richest man. His \$29bn fortune is half as large again as that of Son Masayoshi, a flamboyant tech investor who is corporate Japan's most globally recognisable face (see Schumpeter). Mr Takizaki's firm and its fellow equipment-makers are hardly household names. But the hardware they produce is becoming as ▶▶

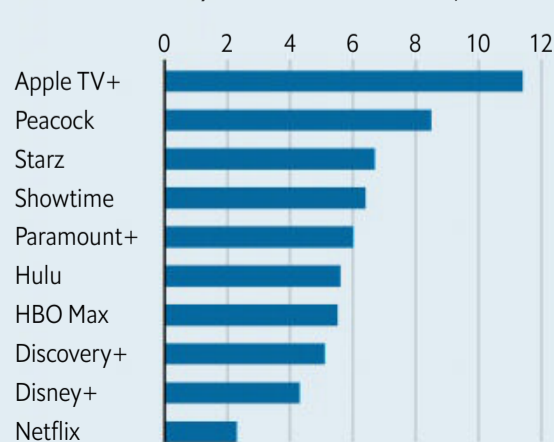
Tuning in...and out

Global streaming-TV subscribers†



Sources: Ampere Analysis; Antenna

United States, streaming-TV monthly subscriber churn, December 2021 estimate, %



†Includes estimates *Active viewers only

► mission-critical to many industrial supply chains as semiconductors are.

It is no surprise that Japan, a famously robot-loving place, has spawned a strong Automation Inc. Just-in-time manufacturing, pioneered by efficiency-obsessed Japanese companies such as Toyota in car-making or Panasonic in consumer electronics, has involved replacing humans with machines for decades. This source of competitive advantage became an existential necessity for domestic manufacturers after Japan's working-age population began to shrink in the 1990s. Today it is becoming one for other rich countries as they enter demographic dotage. Keyence and SMC now derive more than half their revenues from abroad. Fanuc and Lasertec are even more international, with more than 80% of sales coming from overseas.

Some of the new foreign demand is the result of the world's insatiable hunger for computer chips. SMC, which sells pneumatic control devices to chipmakers, has seen its business boom, especially as places including America and Europe (see next article) strive to bring more semiconductor production home, says Masahiro Ota, who sits on SMC's board. Lasertec enjoys a near-monopoly on inspection tools for the most advanced semiconductor photomasks—plates through which circuit patterns are etched onto silicon wafers. Its share price has ballooned four-fold since the start of 2020, making it one of the best-performing blue-chip stocks in Asia. Keyence's precision sensors are likewise crucial for the detection of flaws in semiconductor surfaces.

The companies' devices are, of course, also handy in other sectors. Fanuc, which makes large factory-floor robotic arms, has long been a fixture of car assembly lines. Mike Cicco, who runs Fanuc's American operations, notes that the development of electric cars requires a range of new capabilities on the part of carmakers—and that in turn necessitates new types of robot. Fanuc expects to supply Ford's factory in Cologne, in Germany, with 500 robots this year as the plant becomes the Ford Cologne Electrification Centre.

Being indispensable has proved to be lucrative. All four stars of Japan's automation-industrial complex boast operating-profit margins of over 20%. That of Keyence, the most profitable of the lot, exceeds 50%. The firm has reported record net profits in each of the past three quarters. Like chip firms such as Nvidia, Keyence does not manufacture products but rather designs them and assists customers in deploying them in their factories. Lasertec, too, does little of its own manufacturing. This capital-light approach helps sustain profits. Keyence spends just 3% of its net sales on research and development (R&D). Similarly, SMC



Armed and ready

spends around 4%. Fanuc does make almost all its products independently and invests more in production capacity and R&D. But it uses that capital efficiently, not least, as befits a robot-maker, by deploying plenty of its own robots to build robots for customers. Its biggest "lights out" factory can run for more than a month with no pricey human operators around.

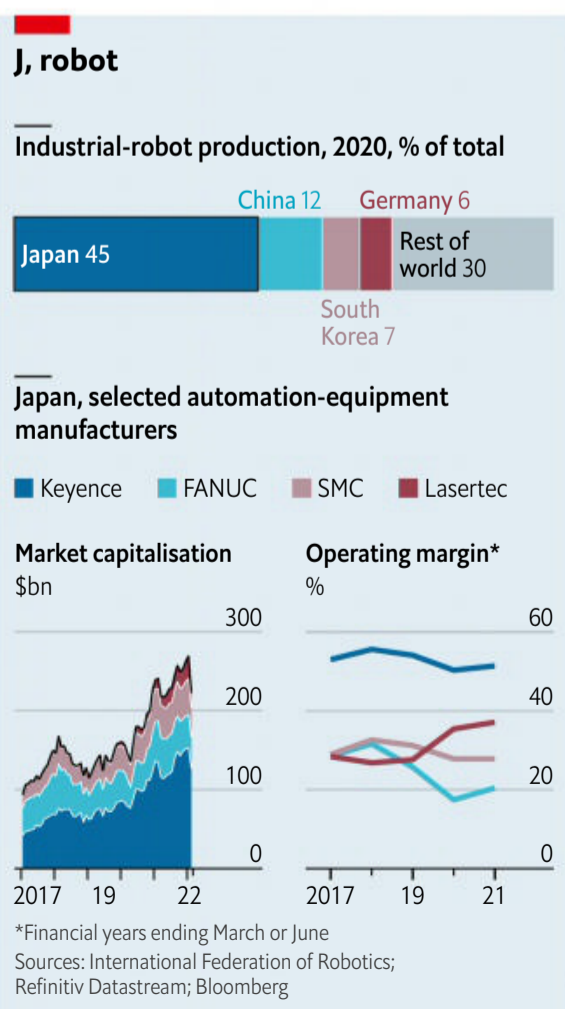
Japan's automation firms also owe some of their success to corporate culture. SMC maintains a network of 6,000 salespeople who double as systems engineers with in-depth knowledge of customers' equipment. Keyence uses no middlemen to sell its products, relying entirely on its own sales force. As with SMC, many are engineers, who spend a lot of time on customers' factory floors identifying niggles

and tweaks that might otherwise go unnoticed. They are rewarded handsomely for their efforts. Nikkei, a Japanese publisher, reports that average salaries at Keyence exceeded \$150,000 in the last fiscal year.

The automation stars, like Japan Inc as a whole, tend to be less generous with shareholders. Most sit on piles of cash; Keyence held over \$10bn in current assets in the last financial year. The reserved character of the companies and their tight-fistedness is so well-established that some investors say any sudden shifts in that attitude may be a sign of big and possibly unwelcome changes at the firms.

Investors have to rely on such rune-reading because it is not always clear what is going on inside the companies, at least by contemporary Western standards of open shareholder relations. SMC's "traditional Japanese approach to corporate governance", as Baillie Gifford, a tech-focused British asset manager, delicately put it in 2020, offers only limited engagement with shareholders. One asset manager with a stake in Keyence reports never speaking directly with its management.

As the companies become ever more international, they will face pressure to be more candid—and less frugal, both with payouts to shareholders and with investments. Fanuc increased its dividend sharply in 2015 under pressure from Third Point, an American activist hedge fund. As Japan becomes less averse to gadfly investors, Automation Inc should expect more such calls. To maintain their innovative edge, meanwhile, the firms may need to spend considerably more on R&D. Amid tech-inflected geopolitical tensions with the West, China wants to reduce its reliance on foreign suppliers of all manner of advanced technology, including robotics. If successful, the Chinese strategy would at once deprive the Japanese firms of a big market and create new global rivals. Becoming indispensable is one thing. Staying so is quite another. ■



Chipmaking

Fabs with benefits

BERLIN

In the global semiconductor arms race, Europe makes its move

IN 2013 THE EU launched an ambitious project. The aim was to double the share of microchips made in Europe to 20% of the global total by 2020. Nearly a decade later it remains stubbornly stuck at 10%. If that were not bad enough, Europe no longer makes any of the most advanced chips of the sort that go into data centres or smartphones (see chart). So, prompted by shortages of semiconductors and their growing importance for all sorts of industries, the bloc is having another go.

Judged by numbers alone, the EU's new Chips Act, unveiled on February 8th, could move the needle. It is meant to generate public and private investment of more than €43bn (\$49bn), about as much as a similar package working its way through America's Congress. More than two-thirds of this money is supposed to take the form of state subsidies for new leading-edge chip-fabrication plants, or "mega fabs"—thanks to a more generous interpretation of EU restrictions on state aid. The rest will go to other chipmaking infrastructure.

Reality is likely to prove trickier. To understand why, it helps to see the semiconductor industry not just as a collection of huge fabs, of which the most sophisticated can cost more than \$20bn a pop, but as a global ecosystem of thousands of companies. Even more than in other high-tech industries, research and development (R&D) usually takes years and costs billions. New chips are designed by specialised firms using complex software made by other companies still. And after chips leave a fab, contract manufacturers assemble, test and package them (ATP, in the lingo).

Seen through this ecosystemic lens, the EU's position is both stronger and weaker than its small share of global chip output might suggest. Start with the strengths. The continent maintains a leading position in semiconductor R&D. One of the industry's main brain trusts, the Inter-university Microelectronics Centre (better known as IMEC), is based in Belgium.

Europe's firms also produce many of the machines that make fabs tick. ASML, a Dutch firm with a market value of €230bn, is the sole global supplier of the lithographic equipment without which fabs cannot etch the most advanced processors. Only Nvidia, an American chip-designer, and Taiwan Semiconductor Manufacturing Company (TSMC), the world's biggest contract manufacturer of chips, are worth

more. An array of smaller European outfits enjoy dominant positions in the complex chipmaking supply chain. Carl Zeiss SMT makes lenses for ASML's lithography machines (and is co-owned by it). Siltronic manufactures silicon wafers onto which chips are etched. Aixtron manufactures specialised gear to deposit layers of chemicals onto those wafers to make circuits.

Once you widen the aperture to the whole ecosystem, Europe's biggest chipmakers, Infineon, NXP and STMicroelectronics, also appear less benighted. Yes, half of the continent's capacity is for chips with structures ("nodes") measuring 180 nanometres (billionths of a metre) or more, generations behind the technological cutting edge, dominated by TSMC and Samsung of South Korea, whose transistors come in at a few nanometres. But those nano-electronics are most useful for consumer devices, the bulk of which are assembled in Asia. By contrast, the larger European nodes are sufficient for the continent's many industrial firms that require specialised silicon for things such as cars, machine tools and sensors. "European chipmakers focus on their customer base," explains Jan-Peter Kleinhans of SNV, a German think-tank.

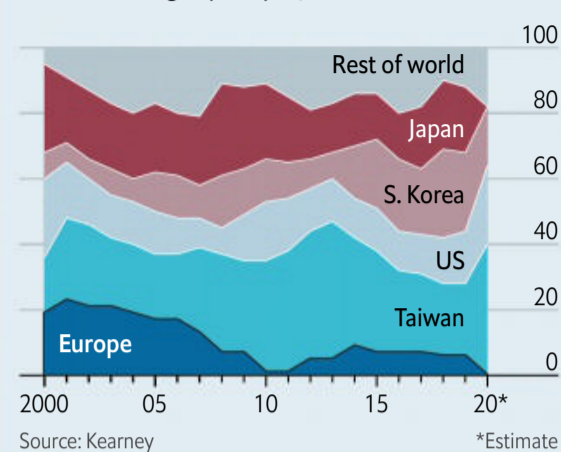
If the Chips Act is a guide, European policymakers worry that these genuine strengths are not enough to offset the EU's weaknesses. Besides lacking cutting-edge fabs, Europe is short of companies with the know-how to design the smallest chips,



Hoping for a rosy outlook

More chips, please, we're European

Leading-edge semiconductor manufacturing capacity, by location, %



such as Nvidia. It is similarly behind in ATP, where most capacity is in China and Taiwan. Once approved by member states and the European Parliament, the EU law is meant to help Europe catch up. Besides the €30bn or so for mega-fabs, it has pencilled in €11bn for things like a virtual chip-design platform open to all comers and other infrastructure, including pilot production lines for leading-edge chips. But half of that is to come from member states and the private sector. The EU's contribution of less than €6bn will, as with the bloc's other programmes, come with many bureaucratic strings attached.

A bigger problem is the act's focus on luring giant chipmakers to build mega-fabs. TSMC and Intel, its American rival, have signalled they would consider Europe only if governments shoulder a big part of the costs (40% in Intel's case). To enable such deals, the first of which is expected in weeks, the European Commission wants to relax state-aid rules to let member states subsidise such fabs "up to 100% of a proven funding gap" if they are "first-of-a-kind" or would "otherwise not exist in Europe".

If such criteria were meant to avert a subsidy race, they look copious and fuzzy enough for countries to try to game them. Worse, the resulting fabs may end up underused. By the time they are ready in a few years, the chip shortage may have turned into a glut. And if the EU's efforts to boost Europe's chip-design firms fail, European fabs would have to rely on foreign chip-designers for custom. Why, asks Mr Kleinhans, would American firms choose to have their chips manufactured in Europe rather than in Asia or at home?

Thierry Breton, the EU commissioner in charge of industrial policy, envisions a Europe of mega-fabs that not only serve the continent's own demand, but world markets. Europe may be better off propping up its chip ecosystem by investing in things like basic research. Mr Breton doesn't need to pick Europe's chipmaking winners. As the EU's semiconductor stars show, the market can do that just fine. ■

Consumer health care

Slumber party

As sleepless masses tuck in, investors dream of riches

THE RICH world has a sleep deficit. The average American adult snoozes almost two hours less than their great-grandparents did. More than a third of Americans get less than seven hours of kip a night. The resulting fatigue has been linked to Alzheimer's disease, hypertension and other ailments. It may cost America's economy as much as \$400bn a year, according to one study. Other wealthy countries are similarly sleepless. Consumption of alcohol and caffeine are partly to blame, as is exposure to phone and computer screens. Ironically, people are turning to some of those same devices for help.

Tiny sensors are now more easily embedded into wearable gadgets to observe users overnight. Consumer-electronics giants such as Google, Samsung and Huawei offer sleep-related technology in their gadgets. Although Apple seems to be winding down Beddit, a Finnish maker of bed



There isn't an app for that

sensors it acquired in 2017 for an undisclosed amount, it has incorporated sleep functionalities into its new smart watches.

Specialist "sleep-tech" startups offer fancier wares. Oura Health, also from Finland and valued at nearly \$1bn, sells a \$300 titanium ring that weighs a few grams and has built-in heart-rate, oxygen and activity monitors; Kim Kardashian is a fan. Kokoon, a British firm, makes a wireless

headset whose tiny earbuds play relaxing sounds while sensors infer the sleep stage from blood-oxygen levels. Eight Sleep, an American one, charges \$2,000 for its app-synched mattress that heats up and cools as the sleeper's body temperature changes through the night.

The combination of more sleeplessness and better technology has led to a boom in the sleep-assistance industry. Global Market Insights, a research firm, reckons that worldwide revenues from sales of such gizmos reached \$12.5bn in 2020 and could be more than triple that in five years. Matteo Franceschetti, boss of Eight Sleep, thinks the addressable market for his company is "literally everyone in the world". After all, everybody sleeps.

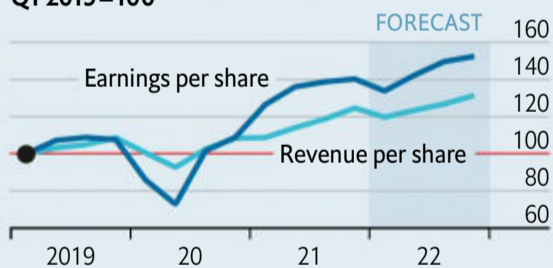
True. But not everybody sleeps poorly (or can afford to splurge \$2,000 on his firm's self-styled "Lamborghini of mattresses"). And the technology, though it is improving, remains far from perfect. Sleeping with a watch strapped to your wrist is irritating, and the battery may die overnight. Your correspondent struggled to wear the Kokoon headset over the satin scarf protecting her hair, and the "brown noise" designed to drown out snoring sounded more like the jarring static of an old television set.

There are problems with sleep-tech's business models, too. People can get bored of wearables, and frustrated when the touted improvements fail to materialise. According to a survey last year by Rock Health Advisory, a consultancy, almost 40% of sleep-wearables users abandoned their devices, mostly because they did not have the desired soporific effect. Kokoon, Oura and Eight Sleep have all recently introduced membership models to try and keep people updating their devices. Subscriptions give the companies a more stable revenue stream than one-off device sales, as well as providing data that can then be used to im-

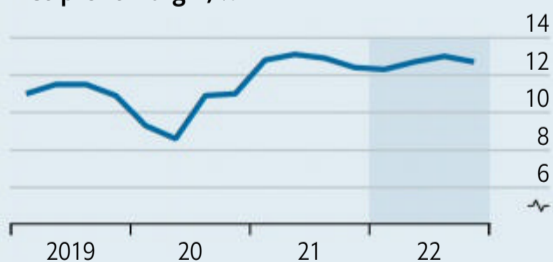
Income support

S&P 500 index

Q1 2019=100

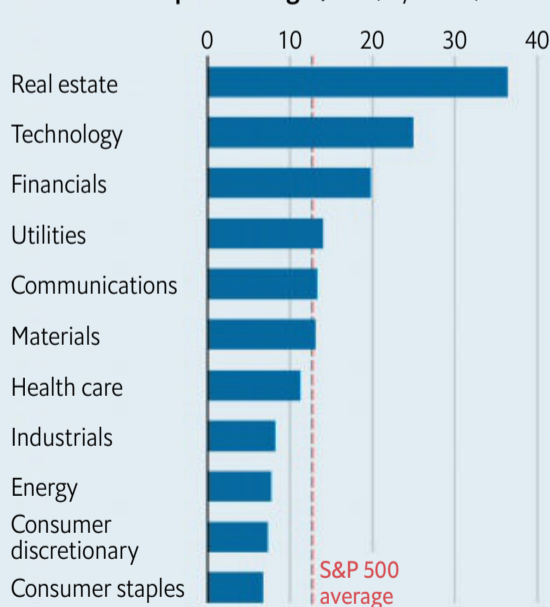


Net-profit margin, %



Source: FactSet

Estimated net-profit margin, 2021, by sector, %



Earn as you go

Throughout 2021 corporate profits in America seemed immune to infection, inflation and snarled-up global supply chains. With most of the country's biggest firms having reported their latest quarterly results, revenues and earnings in the last three months of the year seem poised to set another record. The technology industry's annual profits rose by a quarter, compared with 2020. Among property firms in the S&P 500 index they swelled by a third. Net-profit margins have edged down from their recent peak in the second quarter of 2021 and analysts forecast lower earnings and sales in the first three months of 2022. It may prove to be a brief sniffle caused by unusually strong seasonal factors. But America Inc no longer looks totally impervious.

► prove their products. But it can also be interpreted as an implicit acknowledgement that the devices are not an instant cure. (Oura says that it now offers various other insights into ring-wearers' health that are not directly related to sleep.)

Many scientists worry that, as with many emerging consumer-health technologies, sleep-tech often lacks the gold-standard randomised controlled clinical studies where it is tested on many patients and against placebos. Ingo Fietze runs a sleep centre at Charité Berlin, a big university hospital, and studies novel gadgets and

mattresses at a private lab he set up on the side. He says that when he asked Samsung, a South Korean device-maker, and Huawei, a Chinese one, to share the methods behind their watches' metrics, he did not hear back. In any case, says Mr Fietze, no existing wearables, which track sleep using various proxy measures, can match a clinical polysomnogram (PSG), which takes data directly from the brain using electrodes. Samsung did not respond to a request for comment. Huawei says its device measures sleep duration with accuracy comparable to a PSG.

Sleep-tech may, scientists concede, help mild insomniacs and sensitive sleepers decide whether they need clinical interventions. Monitoring blood-oxygen in real time, as some wearables do, can help identify disorders including sleep apnea, a condition whose sufferers stop breathing while they sleep and which afflicts perhaps 1bn people around the world. But ultimately, Mr Fietze believes, "no gadget can make your sleep better." If consumers in need of more shut-eye reach a similar conclusion, sleep-tech investors' dreams of riches may turn into a profitless nightmare. ■

Bartleby Toxic sludge

A disturbing report on Rio Tinto's corporate culture has lessons for other industries

CORPORATE CULTURE is often like mist—indubitably there but hard to pin down. Occasionally it solidifies into something ugly. Take the following figures from an external investigation commissioned by Rio Tinto, a global mining giant, into its workplace culture. Almost half of Rio's employees report having experienced bullying in the past five years. Almost a third of its female workers have endured sexual harassment; 21 women reported an actual or attempted sexual assault. Two in five Australian Aboriginals and Torres Strait islanders employed by the company have experienced racism.

The report is an admirably open attempt to face up to a toxic culture. As well as survey data, it contains testimony from interviews and focus groups. It was published on Rio's website earlier this month, along with an apology from Jakob Stausholm, the firm's boss. Such unusual transparency seems to be building trust: half of the firm's employees said they were extremely or very confident that Rio would make meaningful progress in stamping out sexual harassment and racism.

The report is a product of specific circumstances. Rio's reputation was badly tarnished in 2020, when it destroyed Juukan Gorge, a mining site in Western Australia whose ancient rock shelters were sacred to indigenous people. That cost Mr Stausholm's predecessor his job, kick-starting efforts to change the way the firm was run.

Rio's culture is traceable, at least in part, to the idiosyncrasies of the mining industry. Its workforce is 80% male, and the worst behaviour occurred on remote sites where employees fly in or drive in for stays of several days, or live full-time in company housing. Machismo and

isolation make for poor bedfellows.

But it would be a mistake to regard Rio's soul-searching as a curio from the world of alpha males and excavators. For both its findings and the fact of its existence hold wider lessons.

First, they show how a corporate culture can rot. The worst abuses may have been more prevalent in the firm's remote reaches but they were present at its heart, too. The highest rate of sexual harassment was found in the firm's iron-ore division, but next came Rio's strategy, sustainability and development group. Widespread suspicion of the company's internal reporting mechanisms and a fear of speaking out are evident. "The minute you raise an issue about a senior leader, you're done," said one employee. "I don't want to rock the boat so hard that I fall out of it," echoed another. Interviewees accused Rio of rewarding bullies, and of pushing high performers up the corporate ladder irrespective of how they behaved.

Among other things, the firm says it will set up a specialist unit designed to respond to complaints of harmful behav-

our, and to provide support to people who blow the whistle. Whatever the right answer, the report raises questions that executives in all organisations confront: what to do with talented jerks, and how to make sure people voice concerns if something is going badly wrong.

Second, they may be a harbinger of wider demand for data on corporate culture. For all that managers bang on about people being an organisation's greatest asset, precious little information is available to outsiders on how staff are treated and encouraged to behave. This may be because of the mist problem: it is hard to measure culture. It may be because investors haven't much cared.

Perhaps that is changing. Labour shortages have focused attention on how well firms retain workers. Research from Donald Sull at the Massachusetts Institute of Technology and his co-authors finds that a toxic culture is ten times more important than pay in predicting industry-adjusted staff turnover.

Movements like #MeToo and Black Lives Matter have pushed sexism and racism up the corporate agenda. Allegations of sexual misconduct have battered the reputations of Axel Springer, a media giant, and Activision Blizzard, a video-game publisher just acquired by Microsoft. Late last year Microsoft's investors adopted a shareholder proposal requiring the software titan to report on its own sexual-harassment policies. Regulators are making noises about more disclosure on human capital; Gary Gensler, chairman of America's Securities and Exchange Commission, wants proposals in this area.

Rio Tinto's problems are extreme. But they are not unique. And in opening up about its corporate culture, it is, in one way at least, ahead of its time.



Schumpeter | Does Masa have his trunks on?

As the tech tide turns, SoftBank's assets are looking a bit skimpy



FEW COMPANIES are more emblematic of the tech-obsessed, easy-money era of the early 21st century than SoftBank, the Japanese investment conglomerate founded and run by Son Masayoshi, or Masa for short. Starting life as an obscure Japanese software distributor in 1981, it has made one debt-fuelled bet after another to become an internet firm, a telecommunications giant, and then what Mr Son last year called the world's biggest venture-capital (vc) provider, comfortably ahead of Tiger Global, a New York hedge fund, and Sequoia Capital, a vc powerhouse. Parts of its balance-sheet are opaque yet it continues to borrow heavily and is one of the world's most-indebted non-financial firms. Like many of the Silicon Valley firms it invests in, it has a dominant founding shareholder who is not averse to spouting gobbledegook. Mr Son says he invests with a 300-year horizon, making SoftBank as close to immortal as financial firms get. But it is the here and now that he should be most concerned with.

That is because the tech boom, which SoftBank has both fuelled and benefited from, may be coming to an end. In the face of the highest rates of inflation in decades, central banks have started to raise interest rates. That threatens to tighten credit markets for highly leveraged entities like SoftBank. More important, higher rates make a big difference to the long-term value of the sort of high-growth tech startups it invests in, whose profits are in the distant future. As one of the highest rollers in two of the business megatrends of the past few decades, it is worth asking what would happen if tech fandom and easy money prove evanescent. As Warren Buffett once said, it's only when the tide goes out that you can see who is swimming naked. What, Schumpeter wonders, is the state of Mr Son's bathing attire?

Mr Son, like Mr Buffett, enjoys a colourful turn of phrase. On Feb 8th, reporting an 87% year-on-year slump in SoftBank's net profit in the nine months to December, he was blunt. Not only was the company in the midst of a blizzard that started last autumn, he said. The storm had got worse in America and elsewhere because of the threat of rising rates. Though SoftBank eked out a small profit in the most recent quarter, the two most important variables that Mr Son watches like a hawk deteriorated sharply. One was the net value of SoftBank's portfolio of assets, which fell by \$19bn to

\$168bn. The other was the value of its net debt relative to equity, which reached the highest level since 2018 when SoftBank floated its Japanese telecoms business.

To gauge the risks, start with the asset side of those calculations. However much of a brave face Mr Son puts on it, good news is scant. On the day of its results SoftBank confirmed that it had called off the sale of its British chip business, Arm, to Nvidia, a California-based semiconductor firm, because of regulatory pressure. At Nvidia's highest price, the implied sale value was above \$60bn, or about twice what SoftBank paid for Arm in 2016. Instead SoftBank will sell shares in Arm in an initial public offering (IPO) in the next financial year. Mr Son noted that the underlying profits of Arm's chip business are estimated to have improved recently, which may make it more attractive. Yet Kirk Boodry of Redex Research, an investment adviser, reckons an IPO has little chance of generating as much value as a sale. Moreover, potential investors need only look at the poor public-market performance of almost all the 25 companies SoftBank listed in the past ten months to know that tech IPOs are no longer a gravy train.

Also on the asset side are SoftBank's troubled investments in China and in its two Vision Funds, which invested in a whopping 239 young companies last year. Alibaba, the embattled Chinese tech giant, was once the cornerstone of SoftBank's investment strategy, accounting for 60% of net assets. Now SoftBank treats it like a get-out-of-jail-free card, selling stakes to fund riskier ventures elsewhere. Its weight in the portfolio has shrunk to 24%. On February 7th Alibaba's share price fell by 6% on fears that SoftBank would cut its stake yet more. For SoftBank, Alibaba is now vastly eclipsed in importance by its two Vision Funds, which account for almost half of the group's net assets. These inched up in value in the most recent quarter, mostly because of valuation gains in unlisted firms. If the stark sell-off of SoftBank's publicly traded firms is any guide, however, it may be only a matter of time before valuations of firms in the pre-IPO stage stagnate or even in some cases start to slide.

SoftBank's debt is worrying, too. It said its loan-to-value (LTV) ratio, or net debt as a share of the equity value of its holdings, was 22% at the end of December, up from 19% three months earlier; it considers 25% to be reasonable in normal times. However, others calculate the ratio more conservatively, including additional liabilities such as margin loans, investment commitments and share buybacks that SoftBank excludes. Sharon Chen of Bloomberg Intelligence, a financial-analysis firm, says that based on her measurements, SoftBank is getting close to the 40% LTV threshold that S&P Global, a ratings agency, has said could be a trigger for a debt downgrade (though the plan to list Arm could ease the pressure). A further sale of Alibaba shares could be used to cut debt, but might also lower the quality of the portfolio—another rating-agency red flag.

Wetsuit, speedos or nothing at all?

SoftBank has had enough debt-related troubles in the past for Mr Son to realise the dangers. It has long pledged to keep enough liquidity on hand to fund two years of debt payments. It also benefits from a pool of banks and ordinary savers in Japan who like the high yields it provides compared with other Japanese borrowers. But its longer-term financial stability rests on two variables—the value of its assets and the size of its debts—which in current circumstances would benefit more from prudence than growth. More than a pair of speedos, Mr Son needs a wetsuit. ■

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Financial markets

What goes up

NEW YORK

Is the modern high-tech, bank-light financial system better than the old one? Brace for a stress test

THE PARALLELS between rollercoasters and financial markets are plentiful. Both go up, both go down. A mountain-high climb is often followed by a stomach-churning plunge. And, on reaching the peak, some riders start to wonder whether they will make it off alive.

The recent tumult in stockmarkets has brought the fairground metaphors flooding back. Should equity investors brace for a sickening lurch downwards? And as they plummet, will the groaning girders beneath them—the infrastructure underpinning markets—hold firm? The structure of finance has changed dramatically since the financial crisis of 2007-09. Every new big-dipper has to go through rigorous testing to ensure it is safe to ride. Post-crisis global markets may be about to experience a wrenching stress test of their own—though with cars packed not with dummies but actual people.

For almost two years after markets recovered from a brief but vertiginous slide when covid-19 spread globally, investing was a scream. Much fun was had bidding up shares in Hertz, a bankrupt car-rental

firm; engineering a short-squeeze in shares of GameStop, a video-game retailer; and piling into cryptocurrencies, including dogecoin, a joke one. With markets so buoyant, picking winners was like shooting fish in a barrel. Stocks, particularly those of tech giants, were supercharged by the Federal Reserve's announcement in March 2020 that it was cutting interest rates to zero and would begin buying Treasury bonds and other assets. The S&P 500 reached all-time highs on 70 of the 261 trading days in 2021. Only in one other year, 1995, has it reached a greater number.

The laughter is not so loud now. On January 27th the S&P 500 closed in correction

territory, 10% below its high at the beginning of the year (it has since regained some lost ground). The NASDAQ composite, a tech-focused index, is down by 9.8% from its all-time high in November. Volatility is back with a vengeance: on January 24th, for instance, on the back of no obvious catalyst, the S&P 500 sold off by almost 4% before a sharp rally saw the index close up 0.3% (and then tumble again the next day).

Robert Shiller of Yale University, who won a Nobel prize for his work on financial bubbles, sees parallels with the go-go years before the crash of 1929. Back then, “there was an explosion of fun things to do with stocks. I think we’re in a similar situation now.” According to Mr Shiller’s surveys, over the past year the share of individual investors who think the market is overpriced has been higher than at any point since the turn of the millennium, before the dotcom bubble burst (see chart 1 on next page). Yet at the same time their belief that stocks will rally if there is ever a fall has never been so high. This contradictory combination of fear of overvaluation and fear of missing out mirrors the dynamic in 1929.

The proximate cause for the boom in valuations is more than a decade of all-but-free money. Central banks slashed interest rates after the financial crisis, then took monetary and fiscal support to new levels in response to the pandemic. This lit a rocket under asset prices. The average stock in the S&P 500 cost 40 times its earnings in early January, as measured by the cyclically adjusted price-to-earnings, or ▶▶

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66 Chinese lending to poor countries

67 Free exchange: A tough transition

▶ CAPE, ratio, a level so high it is only topped by the period which preceded the stock-market crash of 2000 (see chart 2).

Frothy valuations attracted a torrent of capital-raising. A record-breaking \$600bn was raised in initial public offerings in 2021. Private-equity firms saw the pots of capital they oversee overflow. Nor were stocks the only financial assets soaring. Cryptocurrencies leapt by even more. House prices in America have climbed by 29% since the start of 2020.

"All asset prices are where they are today because of liquidity and interest rates," says Greg Jensen of Bridgewater Associates, a hedge fund. As demand for goods and services has jumped in the face of supply-chain constraints, the consequences have cropped up as inflation and shortages. This has forced policymakers to change course and start removing liquidity. As recently as October investors expected just a single 0.25 percentage-point rate rise from the Fed in 2022. They now expect five, and there is talk of the Fed beginning "quantitative tightening", selling off its bond holdings, later this year. This reality is now "catching up" with valuations, says Mr Jensen.

A correction—quite possibly a big one—appears to be unfolding, then. The most important question is whether the financial system is equipped to handle the ride. "Markets need to be able to correct, and some people will lose money. That is a necessary part of the process," says Sir Jon Cunliffe, a deputy governor of the Bank of England. "What matters is does that knock on to something else or is that correction absorbed? You want a financial system that can absorb corrections."

The last big correction, in March 2020, was a weird one. Caused by an exogenous shock—the pandemic—it was easy for policymakers to justify intervention. The last crash caused by endogenous financial risks was that of the global financial crisis. Since then the financial system has undergone a period of unusually rapid technological and regulatory change which has

Cheap at half the price

S&P 500, cyclically adjusted price-earnings ratio*, %



fundamentally altered its structure. It is hard to know how a correction would rattle through this new system.

The financial landscape has been altered in three main areas: who owns financial assets; which firms intermediate markets; and how transactions are settled.

Start with the owners of assets. A smaller share of these is now held on bank balance-sheets. In 2010, just after the crisis, banks held \$115trn-worth of global financial assets. Other kinds of financial institutions, such as pension funds, insurers and alternative asset managers, held roughly the same amount. But non-banks' slice has swollen far more quickly since. By the end of 2020 they held \$227trn, 26% more than the banks did. The share of American mortgages that originated in banks (many of which they held on to) was around 80% before the financial crisis. Today around half originate outside the banking system and most of these are sold on to investors.

A post-banking world

The composition of non-banks has also changed. In the past most individual investors held their financial assets indirectly, through pension funds. In the early 1990s around a quarter of the wealth of American households came from claims on defined-benefit pensions and just 10% was in equities directly. Today, households hold 27% of their wealth directly in stocks, the highest-ever share. Just 15% comes from pension claims.

It was a lot harder for those individuals to move in and out of investments before the financial crisis than it is today. Thanks to the rise of low-cost retail brokerages, it is now trivially easy for people to buy or sell stocks or bond funds on a smartphone. The ease with which the little guy can trade has made it far easier for there to be a run on the investment industry. And the investment industry does not have the same backstop that banks enjoy through deposit insurance and central-bank support.

Next consider the intermediaries. Bank trading desks have long been outcompeted

by specialist high-frequency trading firms like Citadel Securities, with whizzy algorithms which automatically match buy and sell orders. But increasingly, over the past decade, there has also been a retreat from bank intermediation of Treasury and corporate bonds, owing to both technological and regulatory changes, including new rules that deter banks from holding trading assets.

Broker-dealers' gross inventory positions of Treasury securities fell from 10% of outstanding bonds in 2008 to just 3% in 2019. The share of corporate bonds held by dealers has fallen even further, to less than 1%, down from 8% in 2007. This hampers their ability to act as middlemen in markets in times of trouble. It can also amplify the impact of the failure of a fund. "Twenty-five years ago, if a bank had a client that could not make a margin call the bank could bid [buy] that position itself and absorb it on its balance-sheet. But now banks don't have that balance-sheet. So they just hang out a For Sale sign and everybody sees it and it just drives the market down further," says Robert Koenigsberger of Gramercy Funds Management.

At the same time as capacity to intermediate has dropped the supply of bonds has grown, in part driven by a deluge of government supply and in part because corporate borrowers rely more on debt issuance than bank loans. And the demand to trade bonds has been fuelled by the growth in exchange-traded funds (ETFs) built by the likes of BlackRock, the world's largest asset manager.

It used to be hard to buy bonds in small increments. Now, thanks to ETFs, it is much easier. Some of the fixed-income ETFs offered to individuals by BlackRock might have 8,000 or more different bonds in them. If demand for units of the fund rises or falls it begins to trade above or below the fair value of its component bonds. That incentivises market-makers to intervene, either creating units by buying up a portfolio of similar bonds or destroying them by selling a portfolio. Much of this activity is automated.

Problems can arise in times of stress. ETFs trade far more frequently than their component bonds. In March 2020, as volatility shook markets, BlackRock's biggest investment-grade corporate-bond ETF traded 90,000 times a day, while the top five holdings of the fund traded just 37 times. Some argue that this makes bond prices more accurate. But it can also reveal just how volatile prices are in times of stress and could encourage a run.

The problems can be most acute with investments like emerging-market bond funds. In times of stress, liquidity dries up. If funds need cash to meet redemptions they have to sell their most liquid assets, like Treasuries, instead of their emerging-

The jitters index

United States, share who think stockmarket valuations are "too high", %



▶ market bonds. These dynamics contributed to the pressure on liquidity in the Treasury markets in March 2020.

Finally, think about the settlement layers. In the past, banks often settled complex trades like derivative contracts or interest-rate swaps bilaterally. But during the financial crisis this meant that they could only see the trades they had with each bank, not the full picture. Each had no idea whether there were mitigating (or exacerbating) trades with others. Fearful their counterparts were insolvent, banks stopped lending to each other.

International regulators decided to try to fix these issues by forcing more derivatives trading through central clearing houses, which settle trades between a wide range of members. Positions are transparent and netted off. To join a clearing house a member must post an “initial margin” in case it defaults on its trades, and that margin can climb if markets move against it. There are now a handful of major clearing houses worldwide including LCH in London, which clears most interest-rate swaps; ICE in Atlanta, which settles credit default swaps; and the DTCC in New York, which clears and settles American shares.

In sum these changes have reduced the role of banks: they own and intermediate less than ever before, while settlement is now carried out by centralised institutions. In many ways this seems like an improvement over the old system, in which banks whose failure could rock entire economies were highly leveraged and exposed to swings in asset values. But it comes with its own potential perils.

One risk is that although leverage has fallen in banks, it has grown in some non-banks, from insurers to hedge funds. A stark illustration of this was the blow-up of Archegos Capital Management, a previously low-profile family office, in March 2021. The case also showed that banks can remain dangerously exposed even when it is non-banks taking the craziest risks. Archegos’s collapse caused banks—mostly those that had served it as prime brokers—more



Stop this correction, I want to get off

than \$10bn of losses.

How might this high-tech, bank-light financial system fare under severe stress? Some insight can be drawn from recent mishaps. In 2019, as the Fed cut its holdings of Treasury bonds, interest rates in the overnight repurchase market, where banks and investors swap Treasuries for cash, spiked as high as 10%. In March 2020 the Treasury market went into spasms when a flood of sellers, spooked by illiquidity elsewhere and desperate for cash, all tried to offload bonds at once. Market-watchers like Mohamed El-Erian, chief economic adviser at Allianz, an insurer, think the short-squeeze in GameStop wiped as much as 5% off the S&P 500 as hedge funds with open short positions were forced to de-lever their portfolios.

In the first two cases the Fed ultimately saved the day by buying assets and creating liquidity. During the GameStop saga the clearing system imposed such high capital calls on Robinhood and other brokerages that they were forced to suspend trading, halting the squeeze. Had it been allowed to continue it could conceivably have bankrupted enough funds, and caused them to fail to deliver enough GameStop shares, that the retail brokerages would have been forced to buy the required shares at any price. That could have caused them to go bust, too.

It is possible to imagine such an event causing havoc. Instead of retail traders and other investors buying the dip, as has been their habit, markets continue to slide. Moves are big and wild because market-making capacity is reduced. Margin calls go out to a slew of hedge funds, some of which fail to meet them because they are more leveraged than anyone anticipated. Bond and equity funds suffer overwhelm-

ing outflows. To meet redemptions, managers sell their most liquid assets, like Treasuries or blue-chip stocks, causing yields to jump and equities to fall further. Retail investors use their brokerage apps to bale out of their investments, too.

Even if this does not trouble the banks much, such an event could upset the wider economy. “Ownership has widened significantly,” says Mr El-Erian. “That is a good thing long-term, but in the short term it might amplify household financial insecurity. People with less income and less of a wealth buffer now have a greater proportion of wealth subject to volatility.”

In some ways this would mark a return to form. In the 1990s people would go out shopping on the back of wiggles in the Nasdaq, because they felt suddenly richer. That connection seems to have returned, especially for moves in cryptocurrencies and popular stocks.

In extremis, volatile markets could prompt bankruptcies of enough leveraged investors or funds to wipe out a member of a clearing house—perhaps a smaller, weaker bank or insurance fund—which might in turn wipe out the clearing house’s default fund. This would send margin calls around all of the banks. If they, weakened by the same defaults that felled the other member, failed to meet these, the clearing house itself could be jeopardised. Paul Tucker, a former deputy governor of the Bank of England, has written that a clearing house that could not withstand a member’s default could be a “devastating mechanism for transmitting distress across the financial system”.

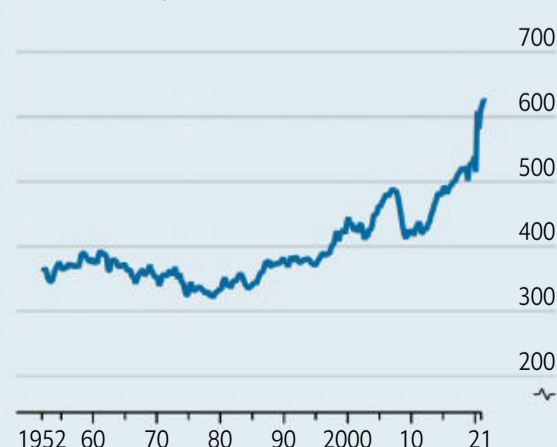
Both pedals at once

This scenario is speculative fiction. At some point central bankers would step in. The advantage of market-based finance is that intervening by buying assets is often enough to quell dysfunction. But it is harder for central bankers to intervene if their financial-stability objectives and inflation mandates are pulling them in different directions, as they would be at present with inflation well above target in many advanced economies. “You’d be sort of stepping on the brake while trying to keep one foot on the accelerator,” says Sir Jon. “It’s not impossible but it could be difficult.”

The big vulnerability of the new financial system is that chaos can be self-fulfilling: more participants are exposed to market swings, and those swings have become potentially more violent. The banks themselves are certainly much more resilient than they were before the global financial crisis. Yet it is difficult to know whether the high-tech, market-based financial system that has been created is sturdier than the more bank-based system of 15 years ago. Those still in for the ride may not have to wait long to find out. ■

Paper gains

United States, household net worth as % of GDP



Source: Federal Reserve



Financing hydrocarbons

Fossil hunters

Who buys the dirty energy assets public firms no longer want? It could be your university or pension fund

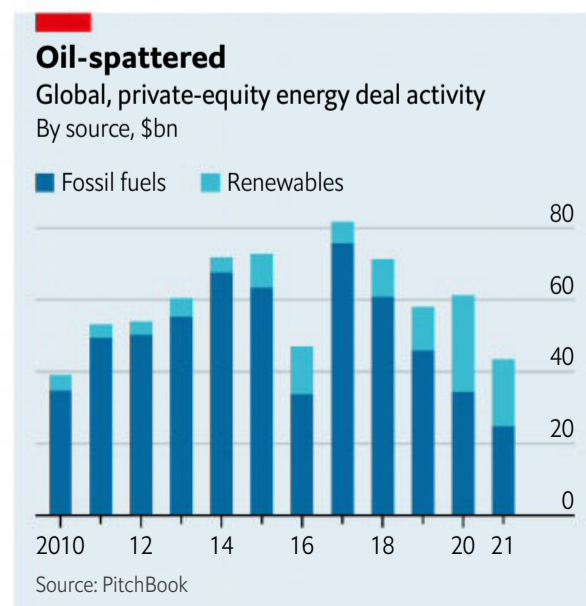
THE FIRST law of thermodynamics states that energy cannot be created or destroyed, just transferred from one place to another. The same seems to apply to the energy industry itself. Pressed by investors, activists and governments, the West's six biggest oil companies have shed \$44bn of mostly fossil-fuel assets since the start of 2018. The industry is eyeing total disposals worth \$128bn in the coming years, says Wood Mackenzie, a consultancy. Last month ExxonMobil said it would divest its Canadian shale business; Shell put its remaining Nigerian oilfields on the block. But much of the time these outmoded units are not being closed down. Instead they are moving from the floodlit world of listed markets to shadier surroundings.

Many are ending up in the hands of private-equity (PE) firms. In the past two years alone these bought \$60bn-worth of oil, gas and coal assets, through 500 transactions—a third more than they invested in renewables (see chart). Some have been multibillion-dollar deals, with giants such as Blackstone, Carlyle and KKR carving out huge oilfields, coal-fired power plants or gas grids from energy groups, miners and utilities. Many other deals, sealed by smaller rivals, get little publicity. This sits uncomfortably with the credo of many pension funds, universities and other investors in private funds, 1,485 of which, representing \$39trn in assets, have

pledged to divest fossil fuels. But few seem ready to leave juicy returns on the table.

PE's love affair with oil is not new. Between 2002 and 2015, rising global demand for the fuel pushed its price above \$100 a barrel, prompting funds focused on "upstream" assets—exploration and production, especially fracking wells—to mushroom. But then Saudi Arabia and its allies, eager to crush American shale, flooded the market, causing drilling firms to go bust and deals to sour. Buyout funds targeting fossil fuels posted ten-year internal rates of return (IRRS) of -0.7% at the end of June 2021, reckons Preqin, a data firm.

But the wind has shifted. As demand for



oil and gas persists while dwindling investment in production limits supply, prices are rising again, boosting producers' profits. BP, for instance, raked in \$12.8bn last year, the most since 2013. Shell predicts IRRS of 20% for investments in upstream projects, against 10% for renewable ones. Buyout funds, which often have a ten-year life, can hope to make their money back in half the time, most of it from the operating cash flows the acquisitions generate rather than from reselling assets. They can source capital cheaply: in contrast to the majors, which have an annual cost of equity of about 10%, they typically finance energy deals with 80% debt, at interest rates of 4-5%. And discounts imposed on "brown" assets by the stockmarket, linked to sustainability factors rather than financial ones, are causing a lot of mispricing on which private funds thrive.

PE managers have also been canny in changing their strategies. Many are no longer marketing energy funds except those with a focus on renewables. Instead, upstream assets are being lumped with others into funds labelled "growth" or "opportunistic", which cover a range of industries. Private-debt funds snap up oil and gas loans from banks. The biggest shift has been a swoop on "midstream" assets (chiefly pipelines) by private-infrastructure funds. Because their revenues are contracted and paid for by big clients—energy majors and utilities—they are deemed very safe, while also generating attractive IRRS in the high teens. Some firms do everything. In June a fund manager owned by Brookfield, which is based in Canada, acquired joint ownership of the entire portfolio of North American oil and gas loans of ABN AMRO, a Dutch bank. In July Brookfield agreed to pay \$6.8bn for Canada's fourth-largest pipeline company—a day after touting a \$7bn fundraising round for a green "transition" fund.

PE firms say they can be trusted to manage those assets well. Because they own controlling stakes and escape the constant gaze of public markets, they see themselves as being in a unique position to improve efficiency and reduce emissions. But the incentives to pocket dividends first and worry about the rest later are growing. Global private-capital "dry powder"—money raised by funds that has yet to be spent—has hit a \$3.3trn record. With so much to spend, managers want to do a lot of deals, which in turn means many don't have time to craft considered decarbonisation plans for assets.

Investors seem in no rush to tighten the taps. A recent survey by Probitas Partners, which helps private firms raise funding vehicles, shows investors have almost no appetite for oil funds today. But few have policies that exclude case-by-case transactions by broader funds. Using data from ▶▶

► PEI Media, *The Economist* has looked at eight PE firms that have closed fossil-fuel deals in the past two years. The investors in some of their latest energy-flavoured vehicles include 53 pension funds, 23 universities and 32 foundations. Many are from America, such as Teacher Retirement System of Texas, the University of San Francisco and the Pritzker Traubert Foundation, but that is partly because more institutions based there disclose PE commitments. The list also features Britain's West Yorkshire Pension Fund and China Life.

Over time, some investors may decide

to opt out of funding their portion of fossil-fuel deals. But a third, yet more opaque class stands ready to step in: state-owned firms and sovereign funds operating in the shadows. Last month Saudi Aramco, the Kingdom's national oil company, acquired a 30% stake in a refinery in Poland, and Somoil, an Angolan group, bought offshore oil assets from France's Total. In 2020 Singapore's GIC was part of the group that paid \$10bn for a stake in an Emirati pipeline.

Could banks act as a restraining force? Big lenders in Europe are soon to face "green" stress tests; many have announced

net-zero targets. Their appetite for upstream deals is "diminishing rapidly", says a Wall Street banker. Yet for big deals, bond markets remain open. Smaller deals can tap private-debt markets. And although Western banks shun loans to midstream projects, Asian ones do not. Liquidity still abounds. Last month a group of investors led by EIG, an American buyout firm, hired Citigroup and JPMorgan Chase to help it re-finance the \$1bn loan it took in June to buy Saudi pipelines. No matter how deep you dig into the capital structure, the laws of thermodynamics still seem to apply. ■

Buttonwood The reset button

Why the prices paid for unlisted technology startups will adjust only slowly to falling share prices

YOU HAVE probably noticed that there has been something of a reckoning for the shares of fledgling technology companies in the public markets. An index of stocks that have floated via an initial public offering (IPO) within the past two years, compiled by Renaissance Capital, is down by around a third in the past year. In the private markets where venture capitalists (vcs) supply funding for startups, the term you hear for more sober valuations is "reset". This is gentler than "reckoning", with its overtones of punishment. In venture circles, mistakes carry no shame. If your startup is a bust, you learn lessons, move on and back a new firm.

There are some signs that the public-market reckoning is causing a rethink in private markets. Technology IPOs are being pulled. Entrepreneurs are advised more pointedly to conserve cash. And there is tentative evidence that vcs are pulling in their horns. The Information, a tech-industry news site, reported recently that Tiger Global Management, a prominent financier of maturing tech firms, had cut back its earlier offers of financing to a handful of startups.

Is this the start of a trend? Don't be too sure. A lot of venture capital has been raised from investors. Around \$750bn was committed, waiting to be deployed, at the end of 2021. The most gilded startups might be hard pushed to notice any shift. Their big funding cheques are likely to keep coming. In the rest of the startup market, any mark-down to more sober valuations will happen with a delay. For now, at least, the wall of venture money militates against a big reset.

The world of vc has changed a lot in the past decade or two. It used to be a cottage industry based around San Francisco. But as interest rates slumped,

other kinds of investors were pushed into taking vc risk to generate sufficient returns. The lower interest rates are, the less investors care about whether they receive a dollar today or a dollar tomorrow. It is a perfect climate for funding startups, whose pay-off may be years away. The cottage industry soon faced competition from private-equity and hedge funds, especially in the funding of mature "late-stage" startups. These "macro" investors look at a portfolio of pre-IPO firms much like a portfolio of listed stocks, says Ajay Royan of Mithril, a vc firm based in Austin, Texas. Their instinct now is to write smaller cheques for startups to reflect the heightened risks to IPO pricing.

But competition from rivals makes this harder than it sounds. A vc firm that tries to align a funding round with the prices paid in public markets may find that another vc firm comes over the top with a better offer. Venture capitalists are caught between two opposing forces. On the one hand, they see that interest rates are going up and technology stocks are falling. On the other hand, there is an array of tempt-

ing startups that are also being chased by lots of rival shops.

The expectations of entrepreneurs matter in this regard. Many will look to the terms their startup peers achieved recently as a guide to their market value, says Simon Levene of Mosaic Ventures, a London-based vc firm. It is not healthy for startup founders to think that capital will always be forthcoming. But try telling them that. An excess of optimism is part and parcel of being an entrepreneur. People who are more mindful of risks get regular jobs. Memories do not reliably stretch back to the dog days of 2002 when vc funding was hard to come by. Founders grew up in a world of near-free money. It will take time for them to adjust to a different landscape.

A deeper fall in tech stocks might nudge that adjustment along. But a true reset would require something else to happen. Were vcs themselves unable to raise capital for new funds, they would surely be forced to be less generous in the prices they paid. If you can't raise money and you know your peers can't raise it either, you become more sparing with capital. Discipline becomes a watchword. Valuation matters more.

This could happen. But it would probably take a much bigger fall in the overall stockmarket to spur it. The share of portfolios allocated to vc would then have to fall in line with diminished public stockholdings. Subscriptions to new funds would dry up.

But there is not much sign of this. Big new funds are still being raised, even after the repricing of listed tech stocks. vc does not yet seem to have lost any of its sheen with pension funds, endowments and family offices. As long as the money flows in, it will be deployed. The reset may have to wait a while.



Inflation in Asia

Rice restraint

HONG KONG

Asia is not feeling the same price pressures as the West—for now

INFLATION HAS shot to multi-decade highs in much of the rich world during the past year, with the effect of supply constraints, covid restrictions and a burgeoning economic recovery all helping to drive consumer prices higher. In Asia, however, pressure on prices is much weaker. Why?

In much of the region—in China, Hong Kong, India, Indonesia, the Philippines and Vietnam—inflation is in fact below average levels over the decade before the pandemic, notes Abdul Abiad, director of macroeconomic research at the Asian Development Bank. Where it is higher than the average for 2010-2019—in Malaysia, Singapore, South Korea, Taiwan and Thailand—it is by around two percentage points or less.

The divergence between East and West is the result of several factors. Some of the disparity with the booming prices seen in North America and Europe, as well as many non-Asian emerging markets, comes down to food. Whereas prices of food globally have surged, Mr Abiad notes that the effect has been uneven. Maize and wheat prices rose by 18% and 20% respectively in the 12 months to the end of January. In contrast, the price of rice fell by around a fifth in the same period. In a country like the Philippines, rice makes up a quarter of the food share of the consumer-price index, and one-tenth of the entire index. In China in particular, average wholesale pork prices dropped by more than half in the 12 months to January, as the African swine fever epidemic that has raged through the country since 2018 began to abate.

The impact of food prices is most obvious in developing economies, but there are reasons why Asia's richer countries have recorded lower inflationary pressure too. For one, supply-chain bottlenecks are not as severe as they are in the West. The cost of shipping a 40-foot container from Shanghai to Rotterdam has risen by around 60% in the past year, to \$13,686, according to Drewry, a supply-chain consultancy. In contrast, the price for the return journey is little more than a tenth of that, at \$1,445, a figure which has dropped by 1% in the past year. Surveys of purchasing managers suggest that supplier delays are still worsening in most of Europe and America, but falling in China, India, Indonesia, Thailand and Vietnam.

The different ways in which countries have emerged from the pandemic matter

Debt relief

How to default on China

HONG KONG

Asia's superpower does not always collect its debts on time

CHINA'S LENDING boom to poor countries is turning sour, as governments struggle to repay their debts to its state-owned lenders like the Export-Import Bank of China and China Development Bank. So how will China handle countries on the brink of default? Will it show the solidarity one developing country might expect from another? Or will it insist on its pound of flesh?

Some think defaults would be good for China. It is often accused of "debt-trap diplomacy": lending heavily to poor countries with an eye to seizing their strategic assets, such as ports, when they cannot repay. The truth is more prosaic. A fresh effort to count China's debt restructurings finds that when faced with a debtor that cannot repay, China mostly just kicks the can down the road.

The new paper by Sebastian Horn and Carmen Reinhart of the World Bank and Christoph Trebesch of the Kiel Institute for the World Economy counts 261 instances of debt relief or renegotiation since 2000. Since China is far from open

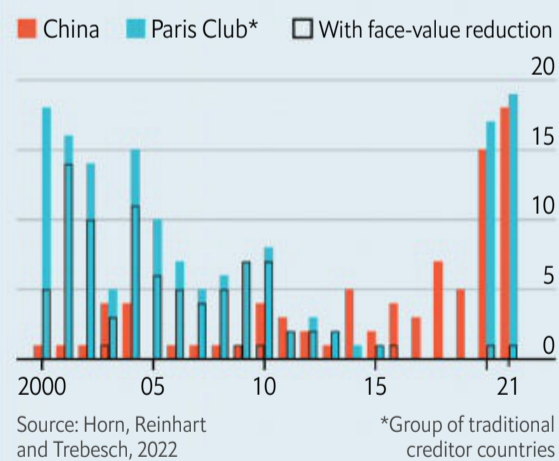
about its lending, the number is probably an underestimate. It includes 149 cancellations or reschedulings of small, interest-free loans by China's commerce ministry, mostly in the 2000s when debt relief became a cause célèbre, embraced by G7 governments and Irish rock stars. Another 28 were payment holidays granted to countries in no great debt distress as part of the G20's response to the pandemic. That leaves 84 restructurings proper (of which 30 were also part of the G20 initiative, but to countries under financial strain).

China's 84 credit mishaps compare with 158 in total by all 22 members of the Paris Club, an informal group of rich-country governments including America, Japan and Britain (see chart). China was perhaps unlucky in lending a lot at a bad time, just before the prices of oil and other commodities exported by African countries began to drop in 2014. In almost all these cases, China simply gave borrowers more time to repay. In only four did it reduce the face value of the debt (Cuba, Iraq and Serbia, twice). Its approach thus resembles that of Western lenders in the 1980s, when they seldom provided deep debt relief.

The pandemic may force China to move from forbearance to forgiveness. Otherwise the authors fear that a debt "overhang" may inhibit growth in poor countries. China has joined the G20's "common framework" for debt relief, which is meant to bring it into line with the Paris Club. In becoming a big lender to poor countries, China has followed in the footsteps of the club's leading economic powers. It has also repeated a number of their blunders. Now it must follow them in writing off some of its past mistakes. Who is China's Bono?

Stress without the relief

Number of distressed debt restructurings by lender



too. Researchers at Capital Economics, another consultancy, note that Asia's "re-opening" inflation in consumer services remains low. The rise in prices for recreation and cultural services in Indonesia, Malaysia, the Philippines, Singapore, South Korea and Taiwan is half or less of the American year-on-year rate of around 4%. The difference may be caused by more gradual loosening of restrictions, as well as a dearth of international tourists.

Not all forms of inflationary pressure can be avoided. Energy prices are more influenced by global trends than those for most other goods and services. Rising en-

ergy costs have been the biggest contributor to the inflation surge in Asia, making up as much as a third of the total increase recently, according to analysts at Goldman Sachs, a bank.

Many economies in the region may face higher interest rates despite their milder inflation. Potential interest-rate increases from the Federal Reserve this year raise the threat of a stronger dollar, which would bring imported inflation to Asia. Monetary policymakers in Indonesia, Singapore and South Korea have already announced small steps to tighten monetary policy. They are unlikely to be the last. ■

Free exchange | The curtain falls

Thirty years on, the promise of many former eastern-bloc economies is unfulfilled



WHETHER OR NOT Vladimir Putin sends Russian troops into Ukraine, increasingly icy relations between East and West may signal a coda to the era of increasing global economic integration which began with the collapse of communism. In the mid-1980s scarcely a quarter of the world's population lived in economies which could be considered open to foreign trade and capital flows, according to an estimate published in 1995 by Jeffrey Sachs, Andrew Warner, Anders Aslund and Stanley Fischer. Less than a decade later, the figure had jumped above 50%, and a three-decade burst of rapid globalisation was under way.

The era of openness has been good for much of the world. Yet the performance of the countries of the former eastern bloc has been decidedly mixed. While some, like Poland and Latvia, grew faster than the emerging world as a whole between 1992 and 2019, Russia did little better than the far richer American economy, and Ukraine did worse. Thirty years on, the question of why some succeeded while others failed remains difficult to answer.

In the critical early years, transitional governments faced huge challenges. Their economies lacked functioning labour and capital markets, and were burdened by uncompetitive manufacturing sectors and a forbidding macroeconomic picture. In the early 1990s inflation exceeded 1,000% in Estonia, Latvia and Lithuania, and 2,000% in Kazakhstan, Russia and Ukraine. Economists broadly agreed on what should be done: economies needed to be opened to trade and market forces, state enterprises sold off, and new institutions built. They differed, though, on how fast to do it. Some, including Mr Sachs, argued for a speedy transition—an approach dubbed “shock therapy”—reckoning that rapid reform would reallocate capital faster and put food on shelves sooner. Critics reckoned that a slower pace would accommodate more institutional reform, and win more political support.

In practice, most governments wasted no time opening to trade and confronting macroeconomic challenges. Strategies diverged with respect to privatisation. Some, like Estonia, moved relatively slowly, matching buyers to enterprises one at a time. Others, like Russia, favoured rapid privatisation through schemes which transferred shares to existing managers and employees (though the Russian state retained stakes in critical industries like oil and

gas). Building new institutions took longest of all. Early results were mostly disappointing. A few countries notched up healthy growth: in Poland, GDP per person, on a purchasing-power-parity basis, rose at an annual average pace of nearly 8% in 1992-98. Most did not. The core of the former Soviet Union experienced a collapse in incomes—punctuated, in Russia, by a financial crisis.

By the 2000s some economists were calling for a reconsideration of the fast-versus-slow debate. In 2006 Sergio Godoy and Joseph Stiglitz argued that faster privatisations had in fact been associated with slower economic growth, and that persistence in developing high-quality legal institutions paid dividends. Similarly, work published by Jan Svejnar in 2002 credited thorough reforms in places like Poland and Hungary for lifting growth, by securing property rights and encouraging good corporate governance.

While economists reassessed, the facts on the ground changed. From 1998 to 2013 all of the post-communist world enjoyed a boom. Per-person annual GDP growth accelerated to 7% in the Baltic states and Ukraine, 8% in Russia and 13% in Turkmenistan. Russia's resurgence enabled it to recapture some geopolitical stature. And the robust growth of emerging markets as a whole, led by China, forced economists to reassess the importance of democracy and the rule of law.

Yet in recent years a different picture has come into focus. From 2014, the long boom in commodity prices ended and the fortunes of economies which had hitched their wagons to resource exports turned. From 2013 to 2019, GDP per person in Turkmenistan shrank, while growth in Russia and Kazakhstan decelerated sharply. As economies stalled, living standards stagnated and corruption and inequality became harder to ignore. Frustrations exploded onto city streets in Kazakhstan in January.

You don't know how lucky you are

Among the economies which joined the EU, in contrast, growth remained strong. In 2016, GDP per person in Romania overtook that in Russia. While much of the former Soviet Union remained dependent on exports of grain, gas and gold, central Europe and the Baltics became deeply integrated with European labour and financial markets, and tied into European supply chains. Sailing has not been entirely smooth; over the past decade, populist governments in Poland and Hungary have weakened democratic institutions. But such systems remain miles away from the authoritarian regimes common across most of the post-Soviet world.

These divergent experiences raise difficult questions: did the quality of institutional reform determine the economic and political avenues available, for example, or did other factors—like natural-resource endowments or the prospect of closer ties with the EU—affect how robust reforms were? Certainly, the literature on transitional economies suggests that countries faced different internal constraints as they reformed. An analysis of Russia's experience in 1993 by Maxim Boycko, Andrei Schleifer and Robert Vishny reckoned that the country's privatisation scheme favoured insiders because management and employees enjoyed outsized influence within the Russian parliament, without whose support privatisation could not proceed, to take one example.

And yet external forces do influence internal politics. Western Europe's attractions surely shaped decisions taken in Warsaw and Budapest, and continue to in places such as Belgrade, Tirana—and Kyiv. The lure of close ties with the rich West can be a powerful inducement to reform, and a spur to growth and democratisation: a fact Mr Putin seems to recognise all too well. ■



Logistics (1)

The bots taking over the warehouse

Distribution centres are becoming increasingly automated with a new generation of smarter, faster robots

A DECADE AGO Amazon started to introduce robots into its “fulfilment centres”, as online retailers call their giant distribution warehouses. Instead of having people wandering up and down rows of shelves picking goods to complete orders, the machines would lift and then carry the shelves to the pickers. That saved time and money. Amazon’s sites now have more than 350,000 robots of various sorts deployed worldwide. But even that is not enough to secure its future.

Advances in warehouse robotics, coupled with increasing labour costs and difficulty in finding workers, have created a watershed moment in the logistics industry. With covid-19 lockdowns causing supply-chain disruptions and a boom in home deliveries that is likely to endure, fulfilment centres have been working at full tilt.

Despite the robots, many firms have to bring in temporary workers to cope with increased demand during busy periods. Competition for staff is fierce. In the run-up to the holiday shopping season in December, Amazon brought in some 150,000

extra workers in America alone, offering sign-on bonuses of up to \$3,000.

The long-term implications of such a high reliance on increasingly hard-to-find labour in distribution is clear, according to a new study by McKinsey, a consultancy: “Automation in warehousing is no longer just nice to have but an imperative for sustainable growth.”

This means more robots are needed, including newer, more efficient versions to replace those already at work and advanced machines to take over most of the remaining jobs done by humans. As a result, McKinsey forecasts the warehouse-automation market will grow at a compound annual rate of 23% to be worth more than \$50bn by 2030.

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The new robots are coming. One of them is the prototype 600 Series bot. This machine “changes everything” according to Tim Steiner, chief executive of Ocado Group, which began in 2002 as an online British grocer and has evolved over the years into one of the leading providers of warehouse robotics.

The 600 Series is a strange-looking beast, much like a box on wheels made out of skeletal parts. That is because more than half its components are 3D-printed. As 3D-printing builds things up layer by layer it allows the shapes to be optimised, thus using the least amount of material. As a result, the 600 Series is five times lighter than the company’s present generation of bots, which makes it more agile and less demanding on battery power.

March of the machines

Ocado’s bots work in what is known as the “Hive”, a giant metallic grid at the centre of its fulfilment centres. Some of these Hives are bigger than a football pitch.

Each cell on the grid contains products stored in plastic crates, stacked 21 deep. As orders arrive, a bot is dispatched to extract a crate and transport it to a picking station, where a human worker takes all the items they need, scans each one and puts them into a bag, much as happens at a supermarket checkout.

It could take an hour or so walking around a warehouse to collect each item manually for a large order. But as hundreds ▶▶

▶ of bots operate on the grid simultaneously, they are much faster. The bots are choreographed by an artificially intelligent computer system, which communicates with each machine over a wireless network. The system allows Ocado's current bot, the 500 Series, to gather all the goods required for a 50-item order in less than five minutes.

The new 600 Series will match or better its predecessor's performance and use less energy. It also "unlocks a cascade of benefits", says Mr Steiner, allowing Hives to be smaller and lighter. This means they can be installed in weeks rather than months and at a lower cost. That will make "micro" fulfilment centres viable. Most fulfilment centres are housed in large buildings on out-of-town trading estates, but smaller units could be sited in urban areas closer to customers. This would speed up deliveries, in some cases to within hours.

Amazon is also developing more-efficient robots. Its original machines were known as Kivas, after Kiva Systems, the Massachusetts-based firm that manufactured them. The Kiva is a squat device which can slip under a stack of head-height shelves in which goods are stored. The robot then lifts and carries the shelves to a picking station. In 2012 Amazon bought Kiva Systems for \$775m and later changed its name to Amazon Robotics.

Welcome to the jungle

Amazon Robotics has since developed a family of bots, including a smaller version of a Kiva called Pegasus. These will allow it to pack more goods into its fulfilment centres and also use bots in smaller inner-city distribution sites. To prepare for a more automated future, Amazon Robotics recently opened a new robot manufacturing plant in Westborough, Massachusetts, to boost its output.

In 2014, when it became clear that future Kivas would be made exclusively for Amazon, Romain Moulin and Renaud Heitz, a pair of engineers working for a medical firm, decided to set up Exotec, a French rival, to produce a different sort of robotic warehouse. The firm has developed a three-dimensional system, which uses bots called Skypods. Looking a bit like Kivas, they also roam the warehouse floor. But instead of moving shelves, Skypods climb them. Once the robot reaches the necessary level, it extracts a crate, climbs down and delivers it to a picking station.

Skypods, says Mr Moulin, maximise the space in a warehouse because they can ascend shelving stacked 12 metres high. Being modular, the system can be expanded easily. As well as returning crates to the shelves, Skypods also take them to places to be refilled.

A number of retailers have started using Skypods, including Carrefour, a giant French supermarket group, GAP, an Ameri-

can clothing firm, and Uniqlo, a Japanese one. Because such robots move quickly and could cause injury—Skypods zoom along at four metres per second (14kph)—they tend to operate in closed areas. If Amazon's staff need to enter the robot area they don a special safety vest. This contains electronics which signal to any nearby bots that a human is present. The bot will then stop or take an alternative route.

Some robots, however, are designed to work alongside people in warehouses.

They often ferry things between people taking goods off shelves and pallets to people putting them into bags and boxes for shipping. Such systems can avoid the cost of installing fixed infrastructure, which lets warehouses be reconfigured quickly—useful for logistics centres that work for multiple retailers and have to deal with constantly changing product lines.

When robots work among people, however, they have to be fitted with additional safety systems, such as cameras, radar and ▶▶

Logistics (2)

Autonomous deliveries

Sidewalk robots are already busy delivering groceries

ALTHOUGH IT IS a business not many are aware of, sidewalk robots are set to become an industry with annual sales of \$1bn within a decade, reckons ID-TechEx, a British firm of analysts. These four- or six-wheeled autonomous machines, usually the size of a suitcase, are already delivering groceries and other goods in America, China and Europe.

That puts them ahead of many driverless cars, vans and lorries being developed. Those bigger vehicles are held back not by technology but regulation, says Zehao Li of IDTechEx. This means having a "safety driver" on board ready to take over if there is a problem, which is hardly labour-saving.

For these larger contraptions regulators want to see safety systems thoroughly proved. But there are legal hurdles, too. In January Britain's Law Commission, which reviews legislation, recommended that it should not be the person in the driver's seat who faces prosecution if a vehicle in autonomous

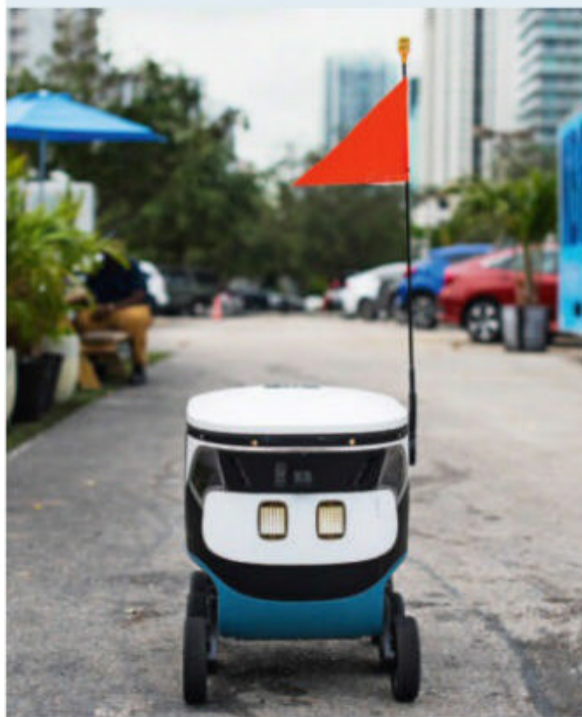
mode crashes, but the manufacturer or body that sought approval for its use.

Meanwhile, sidewalk robots are getting on with the job. Among them, Starship Technologies, based in San Francisco, reckons it has already clocked up more than 2.5m deliveries with bots in a number of cities, university campuses and business parks in Europe and America. Amazon is carrying out trials with a similar sort of machine it calls Scout. Kiwibot, a Colombian startup, is making sidewalk deliveries in California.

Typically, these robots carry a few bags of groceries using a variety of sensors, including cameras, radar and GPS to navigate and avoid obstacles and people. Their progress can be monitored on a phone app, which also unlocks them for goods to be retrieved. As they are small, move slowly (Starship's bots might reach a heady 6kph) and are "telemonitored" by people in a control room who can take over, authorities seem more willing to give them a green light.

Such robots are also becoming more autonomous. In January Serve Robotics, another San Franciscan firm whose backers include Uber, a ride-hailing giant, said it had deployed a new sidewalk bot with "level 4" autonomy, which means it can operate without telemonitoring in some predesignated areas.

Robotic versions which operate on roads but have no driver's cab are also appearing. Nuro, a Silicon Valley firm, makes one about the size of a small car that can carry 24 bags of groceries. It has chilled and heated compartments for food and drinks. Udely, also a Californian firm, is developing a larger type called Transporter to operate at highway speeds. Being much further along the road in earning their keep, these delivery bots are helping to pave the way for the time when bigger autonomous vehicles can join them.



Your friendly neighbourhood bot

▶ other sensors, to avoid bumping into staff. Hence they tend to move slowly and are cautious, which can result in bots frequently coming to a standstill and slowing operations. However, machines that are more capable and aware of their surroundings are on the way.

For instance, NEC, a Japanese electronics group, has started using “risk-sensitive stochastic control technology”, which is software similar to that used in finance to avoid high-risk investments. In this case, though, it allows a robot to weigh up risks when taking any action, such as selecting the safest and fastest route through a warehouse. In trials, NEC says it doubles the average speed of a robot without making compromises on safety.

New tricks

The toughest job to automate in a warehouse is picking and packing, hence the demand for extra pairs of hands during busy periods. This task is far from easy for robots because fulfilment centres stock tens of thousands of different items, in many shapes, sizes and weights.

Nevertheless, Amazon, Ocado, Exotec and others are beginning to automate the task by placing robotic arms at some picking stations. These arms tend to use cameras and read barcodes to identify goods, and suction pads and other mechanisms to pick them up. Machine learning, a form of AI, is employed to teach the robots how to handle specific items, for example not to put potatoes on top of eggs.

Ocado is also developing an arm which could bypass a picking station and take items directly from crates in the Hive. Fetch Robotics, a Silicon Valley producer of logistics robots that was acquired last year by Zebra Technologies, a computing firm, has developed a mobile picking arm which can travel around a fulfilment centre.

Boston Dynamics, another Massachusetts robot-maker, has come up with a heavyweight mobile version called Stretch, which can unpack lorries and put boxes on pallets. On January 26th DHL, a logistics giant, placed the first order for Stretch robots. It will deploy them in its North American warehouses over the next three years.

That timetable gives a clue that progress will not be rapid. It will take ten to 15 years before robots begin to be adept at picking and packing goods, reckons Zehao Li, the author of a new report on warehouse robotics for IDTechEx, a firm of British analysts. Some companies think their bots will be able to pick 80% or so of their stock over the coming years, although much depends on the range of goods carried by different operations.

Objects with irregular shapes, like bananas or loose vegetables, can be hard for a robot to grasp if it has primarily been built to pick up products in neat packages. The

bot might also be restricted in what weight it can lift, so would struggle with a flat-screen television or a heavy cask of beer. Further into the future, systems could emerge to overcome many of these limitations, such as multi-arm robots.

So what jobs will remain? On the warehouse floor, at least, that mainly leaves technicians maintaining and fixing robots, says Mr Li. He thinks there are also likely to be a handful of supervisors watching over the bots and lending a hand if there remains anything that their mechanical brethren still can't handle. It is not just inside the warehouse where jobs will go, but outside, too, once driverless delivery vehicles are allowed (see box on previous page). At that point many products will travel through the supply chain and to people's homes untouched by human hand.

People will also be employed building robots. Amazon Robotics's new factory will create more than 200 new manufacturing jobs, although that dwindles into insignificance compared with the more than 1m jobs which the pioneer of e-commerce has created since the first robots arrived in its fulfilment centres. A lot of those jobs are bound to go, although many are monotonous and strenuous, which is why they are hard to fill.

However, other jobs will emerge. Technological change inevitably creates new roles for people. In the 1960s there used to be thousands of telephone switchboard operators, a job which has almost disappeared since exchanges became automated. But the number of other jobs in telecoms has soared. As logistics gets more efficient through greater automation, and online businesses grow, the overall level of employment in e-commerce should still increase. Many of these roles will be different sorts of jobs, just as there are many different sorts of robot. ■

Botany

Deafened

Plants are adversely affected by the racket of urban traffic

MANY ANIMALS depend upon sound to find food, detect predators and communicate with one another. These species understandably suffer when loud motorways cut through their habitats. Some cope by singing more loudly, some change the timing of their calls to occur when fewer people are driving, others just move to quieter locales.

All of these actions come with significant costs attached and scientists have



Stress and the city

long documented the ecological damage caused by noise pollution. It has always been assumed, however, that noise is a problem unique to animals. But a new study by Ali Akbar Ghotbi-Ravandi, a botanist at Shahid Beheshti University in Tehran, has revealed that plants suffer too.

That plants can be hampered indirectly by noise pollution has never been in doubt. Since most flowering species depend upon pollinators and most fruit-bearing species need animals to disperse their seeds, it is obvious that if these animal partners are harmed by noise then their botanical counterparts will do badly, too. What has remained unknown is whether or not plants themselves suffer directly from noise pollution.

Sounds are concussive pressure waves transmitted through gases, liquids and solids. Scientists have previously hypothesised that plants may be able to sense these waves as they are struck by them. A number of experiments have confirmed this in recent years—plants bombarded with ultrasound in the lab have shown a range of adverse responses including the expression of stress-related genes, stunted growth and reduced germination of seeds.

Yet blasting plants with ultrasound is not the same as growing them in the presence of actual traffic noise. To this end, Dr Ghotbi-Ravandi decided to set up an experiment to study precisely this question.

Working with a team of colleagues, Dr Ghotbi-Ravandi grew two species in his lab that are commonly found in urban environments—French marigolds and scarlet sage. The plants were grown from seed and allowed to mature for two months in the same space before they were divided into two groups. One group was exposed to 73 decibels of traffic noise recorded from a busy motorway in Tehran for 16 hours a day. The other group was left to grow in silence. After 15 days had passed, samples ▶▶

► were taken from the youngest fully expanded leaves on every plant in the experiment and studied.

None of the plants exposed to the traffic noise did well. Analysis of their leaves revealed that all of them were suffering. The chemical compounds hydrogen peroxide and malondialdehyde are indicators of stress in plants and both were found at much higher levels in the specimens exposed to the traffic noise. Most notably, malondialdehyde levels in the sage plants exposed to noise were double what they were in those grown in silence and hydrogen-peroxide levels were three times higher in French marigolds grown with the noise than those grown in silence.

These compounds were not alone. The team found that a range of hormones normally associated with healthy growth and development in plants were present at significantly reduced levels in the plants exposed to the noise. Two stress hormones, jasmonic acid and abscisic acid, which are normally produced to fend off insect attacks and deal with salty soil or very cold

temperatures, were elevated. Even the weight of the freshly clipped leaves differed—clippings from plants exposed to noise consistently weighed less than clippings from plants grown in silence.

Dr Ghotbi-Ravandi's results were published in the journal *Basic and Applied Ecology*. His findings make it clear that, though plants lack ears, the vibrations generated by the noise of traffic still bothers them enough to trigger potent stress responses that are not much different to those that would be found in plants exposed to drought, high salinity or heavy metals in their soil.

The next question is whether all noise pollution affects all species in the same way. The natural world is by no means silent. Alpine meadows are exposed to no shortage of cacophonous gales. Ferns grow along the edges of turbulent pools fed by thunderous waterfalls. Whether some plant species have evolved coping mechanisms, which might one day be collected and transferred into urban-dwelling species, is a mystery worth exploring. ■

would normally be blocked by his damaged spinal tissue and be incapable of activating the nerves in his lower back. But with the stimulation device in place, Mr Roccati was able to voluntarily control those once-dormant nerves, allowing him to move his legs and walk.

Mr Roccati was one of three paralysed volunteers who took part in a small clinical trial of the device, details of which were published this week in the journal *Nature Medicine*. The device worked well enough that all three users in the trial were able to stand up and take a few steps almost immediately after they had recovered from the surgery to have it implanted.

This was a marked improvement on previous implementations of this kind of technology, in which scientists had repurposed nerve implants normally used to treat chronic pain. In the few instances where those experiments had been successful, it had taken many months of training for patients to learn to walk again.

Dr Courtine's and Dr Bloch's new device can be configured to fire its electrical impulses in many different patterns, each of which corresponds to a different activity. Patients in the trial were not only able to stand and walk, but eventually also to swim and cycle.

The new device will need approval from medical regulators before it can be used in clinics. Its inventors set up a company called NeuroRestore, which is working with Onward Medical, a Dutch company, to commercialise their new device.

The impact of the device on the lives of those in the small Swiss trial, however, has already been dramatic. Mr Roccati highlights the little things—walking up stairs, for example, or standing in the shower. At a bar, he can stand up to chat with friends. After training, he is now also able to walk around for two hours every day. “With the walker,” he says. “I am free.” ■

Neurology

Standing ovation

Spinal implants allow paralysed people to walk, swim and cycle again

FOUR YEARS ago Michel Roccati was involved in a motorcycle accident. He suffered what neurologists call a “complete” spinal-cord injury—he lost all sensation below the site of the damage to his spine and he could no longer move his legs. In December last year, however, the young Italian stood up on the streets of Lausanne, Switzerland, and took a short walk.

Mr Roccati's remarkable steps, supported by a wheeled walking frame, were the conclusion of more than a decade of work by Grégoire Courtine, a neuroscientist at the Federal Institute of Technology in Lausanne, and Jocelyne Bloch, a neurosurgeon at Lausanne University Hospital.

The scientists had fitted Mr Roccati with a device that stimulated nerves in his back that once controlled muscles in his lower body and legs, but which had lain dormant since his accident.

Even after a severe spinal injury, the nerves that control activities such as walking often remain intact below any damaged tissue. In people with paralysis, however, the damaged tissue interrupts or weakens any electrical signals coming from the brain.

Dr Courtine and Dr Bloch developed a wafer-thin device with electrodes that

could target the dormant nerves. Once implanted into Mr Roccati's back, the device sent in pulses of electricity that mimicked those normally present in the nerves of an uninjured person as they walk.

By doing this, the device acted like an amplifier for any electrical signals coming from Mr Roccati's brain. Those signals



Michel Roccati (left), walks with David Mzee (right), a fellow spinal-implant patient

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Inside Houellebecq's France

Light in the void

A bard of modern France takes a surprisingly upbeat turn

NEAR THE start of Michel Houellebecq's latest novel, "Anéantir", the protagonist, Paul Raison, finds himself in a hotel bar in Addis Ababa with the preternaturally successful French finance minister, for whom he works. A well-trained politician who is always busy drafting a long-term policy solution, Paul's boss serves as an aching reminder of his own bleak failings. The minister "had never been, and perhaps would never be, in the morose state of mind that was increasingly his own, which consisted in admitting that there is no long-term solution; that life itself contains no long-term solution."

The former *enfant terrible* of the French literary scene has these days turned into more of a national treasure. But Mr Houellebecq does not stray far from familiar *déprimiste* territory in his new book, at least initially. Paul, whose surname means "reason", is a high-level technocrat with a low-level emotional range, a dysfunctional marriage and a life marked by monochrome self-doubt. Yet Mr Houellebecq's eighth novel—due to be published in English next year—is more than a meditation

Anéantir. By Michel Houellebecq.
Flammarion; 736 pages; €26

on existential melancholy. It also holds up a mirror to contemporary France, this time in a presidential-election year and in unexpected ways.

"Anéantir" means to annihilate, or reduce to nothing, and the novel touches on grim themes that are recognisably Houellebecquian—solitude, ageing, physical degeneration, suicide, death, unsatisfactory sex, emotional disconnection, the transience of human existence. Little inconveniences prompt devastating meta-

physical doubt. When Paul's dentist retires, he is undone. "What he couldn't tolerate, he realised with concern, was impermanence itself; the idea that something, whatever it was, comes to an end; what he couldn't tolerate was nothing less than one of the essential conditions of life."

As ever, French literary critics have lamented Mr Houellebecq's flat prose. But it is well-suited to conveying the crushing mediocrity of both his characters' relationships and the physical landscape they inhabit. Far from the country loved by tourists, the novel takes place amid the unprepossessing geography of in-between France: an ibis Styles hotel, a Courtepaille or Buffalo Grill chain restaurant beside the motorway or on a roundabout. Distances are collapsed by high-speed trains, intervening pastoral scenes blurred and obscured. "Passing through an ocean of thick fog at 300km/hour", Paul has "the impression of numbness, of a motionless fall in an abstract space".

Even gastronomy, in the land that celebrates it, disappoints. Paul finds a pre-packaged "maxi soft" chicken-and-Emmental sandwich lying on a ministerial tray. His brother-in-law, Hervé, pays a visit to Paul's father, who has had a paralysing stroke; afterwards, eating dinner at a roadside chain restaurant, Hervé "mechanically turned a piece of plastery Camembert" round on his plate. The ordinary is desolate, the inauthentic absurd. Paul lives amid urban concrete in a development called "Bercy Village".

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Some of Mr Houellebecq's previous novels have been unnervingly prescient, tapping into French anxieties as they unfold. "Serotonin", published in 2019, anticipated a rural uprising on a motorway intersection just as the *gilets jaunes* (yellow jackets) streamed onto roundabouts across France, protesting against a rise in the carbon tax on motor fuel. Four years earlier Mr Houellebecq was accused of stirring up far-right Islamophobia with "Submission", which imagines France under Islamist rule; it was published on the day of the Charlie Hebdo terrorist attack.

"Anéantir" is set in 2027, at the end of the second term of a president who closely resembles Emmanuel Macron. Mr Houellebecq does not dwell on this, although in itself it constitutes a prediction, since Mr Macron is up for re-election in April this year. More intriguing, by the end of his second term France has been transformed into a competitive, industrially powerful economy. This is largely thanks to presidential instructions carried out by Bruno Juge—a thinly disguised fictional version of Bruno Le Maire, Mr Macron's current finance minister—who is Paul's drinking companion in Addis Ababa. Paul considers him "probably the greatest finance minister since Colbert". Though the president was originally elected on the "fantasies of the startup nation", it is the revival of France's *dirigiste* spirit, embodied by Louis XIV's finance chief, which has enabled this remarkable turnaround.

Au revoir tristesse

From a novelist best-known for his nihilistic outlook, this upbeat arc is striking. Past works, including "Atomised" and "Whatever", deplored degenerate post-1968 consumerist society, capitalism, narcissistic individualism and the commodification of human interaction, usually including sex, sometimes at pornographic length. Mr Houellebecq tends to put his finger on a painful spot in society's phobias and fears, and gently press. He connects instinctively to the *ennui* and discontent that are France's default state of mind.

Indeed, in 2017 the author seemed perplexed by the victory of the centrist Mr Macron. Nearly half of voters then backed a candidate from the extreme left or right (which polls suggest they may do again this April). Mr Macron's run-off opponent was the nationalist-populist Marine Le Pen, who warned of the country's imminent collapse. The final contest was, to simplify, between his can-do confidence and her doom-mongering. Mr Houellebecq commented at the time that the election of Mr Macron, who later awarded the novelist the *légion d'honneur*, was a form of "group therapy" for a morose nation, and was designed "to convert the French to optimism". In "Anéantir" he seems to be

hinting that the patient can be cured.

The last part of the novel takes an unusually tender turn. An initial plot, revolving around a series of cyber-attacks, one targeting the minister, is never fully resolved. Instead, the story develops into a personal drama prompted by Paul's own cancer diagnosis. Poignancy intrudes, as he attempts awkwardly to reconnect with his paralysed father, grows back in love with his wife, and contemplates death and departure amid the scarlet and gold leaves of autumnal Burgundy. France upbeat? Mr Houellebecq tender? Each notion is as unsettling as the other, which may be precisely the effect he set out to achieve. ■

Modern Chinese literature

Never-ending stories

The Subplot. By Megan Walsh. *Columbia Global Reports*; 133 pages; \$16 and £11.99

SOME SENSITIVE subjects, such as the Tiananmen crackdown of 1989, have always been off-limits for Chinese authors. But between the 1980s and early 2010s, Chinese novelists such as Mo Yan and Yan Lianke were able to portray the enormities of Maoism as experienced by ordinary people. That freedom has shrivelled since Xi Jinping took power in 2012: amid intensifying authoritarianism, Megan Walsh notes in "The Subplot", the number of cultural figures imprisoned for "subverting state power" or "picking quarrels" is "the highest in the world".

Nevertheless, argues Ms Walsh in her wonderful, pacy tour of contemporary Chinese literature, the Communist Party's

control over creative writing has to some extent been challenged by growing commercialisation and the advent of internet publishing. The result is a literary landscape teeming with corruption exposés, homoerotic fantasy, poignant migrant-worker poetry, time-travelling entrepreneurs and desolately radical science fiction. Together these form "a confusing and intricate tapestry that offers a beguiling impression of Chinese society itself".

The book opens with a survey of traditional print publishing in recent decades. A generation of authors born in the 1950s and 1960s reflected deeply on the bewildering transformations of post-war China. The stories of Mr Mo and Mr Yan stand out for evoking a sense of tragic dislocation between Maoist political puritanism and the cut-throat commercialism of the past 40 years. Ms Walsh moves on to the pack of urban writers who came of age in the literary market economy of the early 21st century—authors such as Han Han and Guo Jingming, who became publishing sensations with their tales of rebellious teens and vapid fashionistas.

The rise of internet literature, she shows, has now dismantled the monopoly on forging reputations and tastes that traditional publishing once held. These days there are over 461m Chinese readers of online writing, with more than 24m fiction titles to choose from. Outlandish trash is the main genre. Addiction to tales of toxic masculinity and chick-lit romances is fuelled by extravagant serialisations: one work has reached 8.33m characters and 998 chapters, and is still growing.

Chinese internet fiction hooks audiences by incentivising them to vote, comment and create their own content, such as fan fiction and illustrations; Ms Walsh describes enthusiasts as "prosumers" (both producers and consumers) rather than readers. Internet fiction is written too hastily to count as serious literature, top ▶▶



China's other dreams

▶ writers churning out as many as 30,000 words a day. All the same, it provides the fantasy worlds to which hundreds of millions of Chinese people regularly escape—mythological and imperial pasts, the underworld, the zombie apocalypse.

A gripping chapter of “The Subplot” maps out the imaginary elements of Chinese science fiction—the genre in which Chinese writers, above all Liu Cixin, have enjoyed most success overseas. Boosted by the pandemic, intrusive technology has come to seem all-pervasive in China; internet censorship and granular high-tech surveillance are now routine. Stories by writers such as Nian Yu and Han Song

explore the dystopian implications of the “monsters that rampant new technologies have thoughtlessly created”, as Ms Walsh puts it. Mr Han, for instance, depicts the transformation of human minds and bodies into “another outdated piece of hardware in need of an upgrade”.

The book makes a powerful case for Anglophone readers who want to understand China to look past the headlines and turn to literature. The country’s creative writers navigate both encroaching censorship and relentless commercial pressures. Yet in fantastical, satirical and provocative ways, their work vibrantly reimagines China’s past, present and future. ■

Contemporary art

Heart in mouth

Theme and technique make Rachel Jones an artist of the moment

WITH ITS sunlit cupola and fluted marble staircase, Ely House has long been a place of silent contemplation. In the 18th century the grand Mayfair town house was the episcopal residence of Edmund Keene, an English bishop. Since 2017 it has fostered a different kind of reverence, as one of the contemporary-art showcases run by Thaddaeus Ropac, an Austrian gallery owner. In this normally hushed environment, the sound of giggling that rang through the building on a recent afternoon was pleasantly jarring.

Two students from east London were lying on the floor to gaze at a long, unframed canvas tacked just above the skirting board. They pointed and laughed as they tried to decipher the imagery, with its scribbles and slabs of pinks and yellows, greys and reds. A third young visitor was poised on one leg, wondering whether to hop over or onto another painting that had been stuck to the floor like a doormat.

Like that of the Italian Arte Povera movement in the late 1960s, this is art that toys with traditional notions of painting—all that rectangular formality, respectful framing and careful placing of pictures at eye level on a gallery wall. Both paintings are by Rachel Jones, a 31-year-old black British artist who was brought up in Essex by a Jamaican mother and a Bajan father. The laughing young visitors might not have ventured into a Mayfair gallery were it not showing work that captures their concerns and shares their cultural references, including music, Instagram and the Black Lives Matter protests. “She paints our world,” one of them said.

Ms Jones studied at the Glasgow School



A bigger canvas

of Art and then at the Royal Academy of Arts in London. There her graduate show caught the eyes of Zoe Whitley of the Chisenhale Gallery in the capital’s East End, who is known for discovering and nurturing new talent, and Ralph Rugoff, head of the Hayward Gallery and curator of the Venice Biennale in 2019. In “Mixing It Up”, an exhibition of British painting at the Hayward last autumn, Mr Rugoff chose to place two of Ms Jones’s biggest pictures opposite some by Oscar Murillo, a dynamic Colombian painter. In their colour and intensity, her pieces were more than a

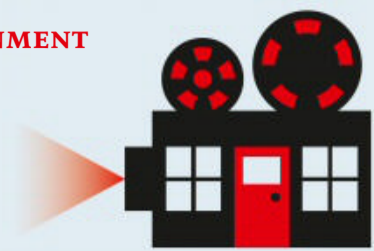
match for Mr Murillo’s muscular blues, blacks and reds.

At the Hayward, Ms Jones’s paintings were not formally hung but simply tacked to the wall—as they were in the recent show at the Ropac gallery, and will be in another that is scheduled to open at the Chisenhale on March 12th. Unstretched and raw-edged, one was over seven metres wide and both were majestic. The bigger of the two, “lick your teeth, they so clutch”, pulsates with colour and depth. Its jostling shapes cohere into a recognisable form: around the outer edge is a patchwork of blood and flesh, and teeth are strung across the middle like gravestones. It is a painting of a mouth, but viewed from an intriguing perspective. You cannot tell if you are inside it peering out or on the outside looking in.

Even to fill her biggest canvases, Ms Jones uses only oil sticks and pastels. She says she can work both faster and more precisely with these than with paints and brushes, a technique that yields a raw, electric energy. In contrast to some big-name contemporary artists, whose output is manufactured in studio-factories, she is herself part of the picture: every mark, every line, every frenzied dash shows what the artist’s hand is doing. The composition, the velocity and the riot of colours—some hot and some cool—all suggest an artist in pursuit of an emotional response. As she once put it, the experience of seeing her paintings is meant to resemble “feeling with your eyes”.

At school, Ms Jones says, she was only ever one of a small handful of black children; later, as an art student, she responded to being stared at by painting eyes. The mouth, with its contradictory allusions to nourishment and vomiting, smiling and grimacing, offered her a broader visual metaphor. For Ms Jones, it evokes an era when the health of African slaves who had been shipped across the Atlantic was calibrated by the state of their teeth. One of the teeth in the Hayward painting is ornamented with small circles outlined in red—a reference, she says, to the success of contemporary black fashion designers and musicians, who sometimes adorn their teeth with coloured gemstones.

Painting is a form of political engagement for Ms Jones, but her art is more thoughtful than didactic. As much as political slogans, the mouths she paints speak of joyful human pastimes such as singing or kissing. Her technical prowess, and her deep engagement with urgent ideas about race and justice, have attracted museums and collectors. Her most recent commercial show sold out; institutions are eager to exhibit her work. But it is the emotional impact it has on young viewers, like those lying on the floor in Mayfair, which best attests to its power. ■

HOME
ENTERTAINMENT

Gumshoes of yore

Avenger in a raincoat

“Columbo” demonstrates the benefits of asking just one more thing

IN “CRIME AND PUNISHMENT” Raskolnikov, the murderer and anti-hero, is tormented by a detective. Porfiry Petrovich seems to know Raskolnikov is guilty from the start and keeps reappearing in the hope of provoking a confession. Richard Levinson and William Link, two American screenwriters, had studied Fyodor Dostoyevsky’s great novel at university and drew on the figure of Porfiry when creating an investigator of their own.

The lasting success of the character of Columbo and the television series of that name owed much to Peter Falk (pictured), the actor who played the main part. Although others had taken brief turns in the role, Falk, with his shabby raincoat and cigar, became a TV great with his portrayal. (He won four Emmys and a Golden Globe for his efforts.) The show attracted other rising stars, too. An early episode was directed by a promising young auteur named Steven Spielberg, with a script by Steven Bochco—who later developed “Hill Street Blues”, “LA Law” and “NYPD Blue”.

“Columbo” was a hit in spite of its unusual format: in nearly all the episodes, the identity of the murderer is known from the start. The viewer sees an apparently perfect

crime being committed. Columbo appears after 15 or 20 minutes, and thereafter the mystery lies in how he will catch the killer. The detective initially seems absent-minded or bumbling—an apparent guilelessness that leads the villain to underestimate him. But before long he spots a small inconsistency, then another and another. He worries away at the crime like a terrier shaking a rat.

The series is set around Los Angeles and the murderer is often a celebrity of some kind. Columbo exploits the baddies’ fame to undermine their defences, sometimes by claiming his wife is one of their biggest fans. But the suspects quickly become exasperated by the detective’s persistence, as Columbo repeatedly turns up to inquire about “just one more thing”.

The culprit may attempt to evade Columbo’s suspicions by taking further action to cover up the original crime, such as killing a witness or trying to incriminate someone else. This second offence usually proves their downfall. The finale frequently involves Columbo playing a trick on the murderer that forces them to confess or reveal their guilt. Sometimes the viewer may wonder whether Columbo’s tactics—and some of the vital evidence—would actually stand up in court. But such concerns are quickly forgotten: this is comfort-food storytelling rather than gritty realism.

The episodes released in the 1970s are by far the best and feature a variety of guest murderers including Dick Van Dyke, Leonard Nimoy, Janet Leigh and Johnny Cash. When the series was revived in 1989, the episodes were longer, more meandering and relied heavily on Falk’s charm. Today the original show offers a welcome dose of familiarity to veteran viewers and reassurance all round, like the comedies of P.G. Wodehouse or the mysteries of Agatha Christie. No matter how ingenious or powerful the villains might be, it insists, a little scruffy guy like Columbo will always be there to catch them out. ■

Radical history

Small voices, big ideas

The Quiet Before. By Gal Beckerman.
Crown; 352 pages; \$28.99.
Bantam Press; £20

ONCE THEY spread, the quiet words of tiny groups can trigger big changes. Stepping off from that commonplace, Gal Beckerman asks two intriguing questions. “Radical change”, he notes, “doesn’t start with yelling.” How, then, do those who challenge conventional wisdom get themselves heard? And how do they find and communicate with each other? Radicals, by nature, are a minority. To start an avalanche, a rock needs neighbours to budge.

Rather than answering directly, Mr Beckerman offers short portraits of dissidents and naysayers in history. He focuses on the technical and political drawbacks they faced in attempting to stay connected and spread the word. Some succeeded. Others failed. His gallery ranges over politics, culture and science. He has talked to many of his present-day outsiders himself.

Political portraits include Feargus O’Connor, an early-19th-century Irish radical, newspaperman and leader of the Chartist push for universal male suffrage in Britain; NNamdi Azikiwe, editor in the 1930s of a west African anti-colonialist newspaper harried by the British, who became independent Nigeria’s first president; and Natalia Gorbanevskaya, a pioneer in the 1960s of *samizdat*, the underground press that helped undermine the Soviet Union. His web-era examples include Wael Ghonim, a Google employee in Egypt, whose net campaign against police brutality in 2011 led to the Tahrir Square movement for democracy.

What the radical pamphlet was for politics, aesthetic manifestos were for modern art. In the early 1900s Filippo Marinetti, an Italian Futurist, poured them out. Mr Beckerman concentrates on his fellow Futurist, Mina Loy. Fed up with the posing and bullying of male colleagues, she left them to write a manifesto for feminism. A nice echo, eight decades on, is the feminist punk scene of the 1990s that was sparked by a home-made “zine”, *Riot Grrrl*.

Although Bay Area counterculture and Silicon Valley are often treated as cultural poles, Mr Beckerman unites them in an affectionate portrait of John Coate, godfather of social media, who started a chat network on a primitive computer from a boathouse in Sausalito in 1985. Among the failures he cites is Nicolas Peiresc, a 17th-century sci-▶▶



► entist-polymath who strove to measure longitude accurately. With exemplary patience, he co-ordinated timed observations of a solar eclipse by amateur stargazers recruited from Cairo to Spain. His brave efforts foundered on slow mail. Longitude was not properly fixed for another century, with seaworthy clocks.

The problem was different for Duane Caneva, a federal health official, when covid-19 struck America at the start of 2020. Communication was instant. The snag was getting politicians and the public to listen. Mr Caneva started Red Dawn, an unofficial

network of worried experts and medical officers. From no more than a dozen, Red Dawn soon linked hundreds across the country. It was another seven weeks before the declaration of a national emergency.

Mr Beckerman ends his engaging study by noting how social media both mobilise and demobilise. His sympathies are on the left, but the observation is general. Social media give radicals of every stripe a wonder tool, but an imperfect one: they are too fast. They mobilise without time to work out aims and ideals or create a durable movement. Missing is what Mr Becker-

man—borrowing from Silicon Valley—calls the vital stage of “incubation”. Pre-digital communication, by contrast, required patience. It was slow, laborious and patchy. But what it lost in speed, and cost in effort, it gained in incubation.

Wisely, the author does not put more weight on his portraits than they will bear. “The Quiet Before” is not a treatise or big-picture history. Open-minded and curious, it suggests rather than argues, and never shouts. Those are virtues easy to overlook—like Mr Beckerman’s chosen radicals as they “incubated” in obscurity. ■

Johnson Escape from La La land

A language without a flag and a state is still a language

THE EUROVISION Song Contest is often regarded as a kind of mirror for Europe. The grudges, alliances, colour and kitsch—and most of all the peaceful spectacle watched in dozens of countries—represent both the best and sometimes the silliest of the prosperous modern continent. One of the rivalries it captures is among Europe’s languages. A recent heat in Spain, to help choose the song to be sent to the finals in May, exhibited another kind of linguistic squabble: the dominance of national languages over misunderstood regional ones.

Spanish viewers were treated to Tanxugueiras, a Galician trio, and their song “Terra”. The presenters scored their first outrage with Galician viewers when, in what seemed a scripted line, one said (by way of introduction): “Belgium has sent a song in an invented language, not once but twice.” Her colleague jokily clarified: “But our next candidates to represent us have not invented anything.” Instead, she explained, the song was written in one of the regional languages that have joint official status in their parts of the country. It was mostly in Galician, spoken in Spain’s north-west, but included a repeated line (“there are no borders”) in Basque, Catalan, Asturian, Spanish and Spanish Sign Language.

The crowd loved the tune; Tanxugueiras won the viewers’ vote. The two international judges were also taken by the trio. But not so the Spanish ones, whose votes swung the victory to another song (in Spanish). The double insult of the presenters’ banter and the judges overriding the popular choice set Galician social media alight. Their language, Galicians complained, is in no way “invented”. A descendant of Latin, it is every bit as old as Spanish. Some speculated that the Spanish judges simply couldn’t

countenance sending a song that is not in Spanish to the final.

The quip about invented languages probably derived more from ignorance than from malice. Europe is full of regional languages whose status seems hazy to those who think a country’s only “real” language is the official, national one. Local varieties are called dialect, argot, patois, jargon, slang or similar, even though linguists are adamant that some are distinct languages. The linguist’s most common test for these variants is whether close neighbours can understand them. If doing so is difficult or impossible, they are languages, not dialects.

But another criterion is entirely political: does the language have a flag, borders and a state? If not, in many minds it exists in a kind of netherworld of not-really-languages. Galician may have official status in its home region, but elsewhere in Spain it is often seen as a curiosity rather than a language as “real” as Spanish.

Galician, as it happens, presents another problem. Lots of people consider it and Portuguese to be one and the same, a

debate covered in a new book (in Portuguese) by Marco Neves of NOVA University Lisbon. Mr Neves thinks Galician can be considered the parent of Portuguese. But whether Galician is distinct is a different question from whether it is “real”. If, in fact, it is actually Portuguese—and should be called Galician-Portuguese, a name some people prefer—then it is one of the world’s biggest languages, spoken by hundreds of millions. If it is separate—and many Portuguese can struggle to understand it, despite deep similarities—then it is a unique regional language. But in either case, it no more deserves to be compared to made-up mumbo-jumbo than does Spanish itself.

Eurovision’s nominating contests are continuing. France, to its credit, has in the past sent entries in regional languages (Corsican and Breton). Ukraine won in 2016 with an entry sung partly in Crimean Tatar. But that sort of recognition is a rarity. Europe has many languages—Catalan and Cornish, Sardinian and Sorbian, Frisian and Friulian—which between them have tens of millions of speakers, and are in theory protected by both national constitutions and a European charter, but which must constantly jostle for attention. The more their advocates seek recognition, the more some speakers of national languages treat them as obsessives or cranks.

The song contest has, rather famously, not only featured songs in fully elaborated invented languages, but winners with titles such as “Boom Bang-a-Bang”, “Ding-a-Dong” and “Diggi-Loo Diggi-Ley”. Spain itself took the crown in 1968 with “La, la, la”. The air of absurdity would not be heightened by more countries sending songs in Europe’s venerable minority languages.



Recoding Diplomacy

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GLOBAL INVITATION OF REQUEST FOR QUALIFICATION AND REQUEST FOR PROPOSAL (Single Stage - Two Cover) for Selection of Operator for the project of "Upgradation, Equipping, Operation, Maintenance and Transfer of Shallow Water Berth (SWB) facility and newly constructed Coastal Berth (CB) through Public Private Partnership (PPP) in Jawaharlal Nehru Port" for a concession period of 30 years.

Jawaharlal Nehru Port Trust (JNPT) invites application from interested parties (Applicants) in accordance with the Request for Qualification (RFQ) and Request for Proposal (RFP) documents in order to selection of the operator, subject to national security clearance. RFQ document and RFP Documents will be issued between **February 4, 2022 to April 5, 2022 upto 1500 hrs.** The Detailed Notice Inviting Tender including RFQ document, RFP Document, Pre-application conference, Application due date are available on JNPT website www.jnport.gov.in.

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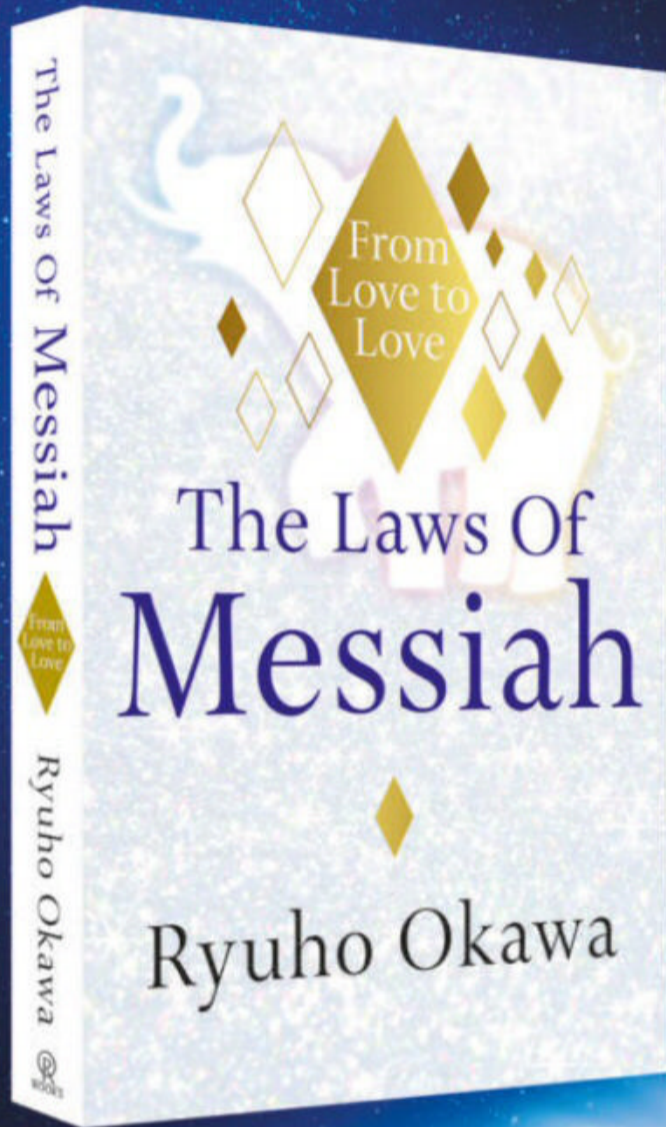
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- ◆ What are three reasons communism is dangerous from the eyes of God?
- ◆ Realize the dangers of totalitarianism and fight for freedom.
- ◆ Above the political system and law exists God or Buddha.
- ◆ A Messiah usually appears when there is a major clash of values on earth.
- ◆ This world is the place for soul training, and life is a workbook of problems to be solved.

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RYUHO OKAWA

•Release Date: January 31, 2022 •ISBN: 978-1942125907 •PRICE: US \$ 16.95



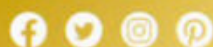
* The latest release from the author of the best-selling book, "The Laws of Secret" ranked No. 1 overall in Japan for 2021 (by TOHAN, one of major distributors in Japan).

Ryuho Okawa

Founder and CEO of Happy Science Group, best-selling author for 31 consecutive years. Okawa published over 2,950 titles (as of February 2022).



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Economic data

	Gross domestic product			Consumer prices		Unemployment rate		Current-account balance		Budget balance		Interest rates		Currency units			
	% change on year ago latest	quarter*	2022†	% change on year ago latest	2022†	%		% of GDP, 2022†	% of GDP, 2022†	10-yr gov't bonds latest,%	change on year ago, bp	per \$ Feb 9th	% change on year ago				
United States	5.5	Q4	6.9	3.4	7.0	Dec	4.9	4.0	Jan	-3.5		-7.7	1.9	76.0	-		
China	4.0	Q4	6.6	5.3	1.5	Dec	2.3	5.1	Dec‡§	2.3		-4.7	2.4	§§	-65.0	6.36	1.4
Japan	1.2	Q3	-3.6	3.2	0.8	Dec	1.3	2.7	Dec	3.1		-7.0	nil	-8.0	115	-9.4	
Britain	6.8	Q3	4.3	4.3	5.4	Dec	3.7	4.1	Oct††	-2.6		-6.5	1.5	92.0	0.74	-2.7	
Canada	4.0	Q3	5.4	3.8	4.8	Dec	3.8	6.5	Jan	nil		-7.5	1.9	85.0	1.27	nil	
Euro area	4.6	Q4	1.2	3.9	5.1	Jan	3.0	7.0	Dec	3.2		-4.0	0.2	66.0	0.88	-5.7	
Austria	5.7	Q3	14.6	4.1	5.1	Jan	2.4	4.9	Dec	1.8		-3.1	0.5	86.0	0.88	-5.7	
Belgium	5.6	Q4	2.0	3.3	7.6	Jan	2.2	5.7	Dec	0.6		-4.3	0.6	85.0	0.88	-5.7	
France	5.4	Q4	2.9	3.9	2.9	Jan	2.2	7.4	Dec	-1.3		-4.9	0.7	89.0	0.88	-5.7	
Germany	1.4	Q4	-2.9	3.3	4.9	Jan	3.5	3.2	Dec	6.5		-2.7	0.2	66.0	0.88	-5.7	
Greece	13.7	Q3	11.3	4.5	5.1	Dec	3.2	12.7	Dec	-4.0		-4.3	2.5	170	0.88	-5.7	
Italy	6.4	Q4	2.5	4.3	4.8	Jan	2.7	9.0	Dec	3.5		-5.5	1.8	127	0.88	-5.7	
Netherlands	5.2	Q3	8.7	2.8	5.7	Dec	3.8	3.8	Dec	9.0		-4.1	-0.2	36.0	0.88	-5.7	
Spain	5.2	Q4	8.3	5.5	6.0	Jan	3.2	13.0	Dec	1.3		-5.4	1.1	93.0	0.88	-5.7	
Czech Republic	3.0	Q3	3.6	4.3	6.6	Dec	4.6	2.2	Dec‡	2.1		-5.1	3.0	142	21.3	nil	
Denmark	3.7	Q3	4.3	2.7	3.1	Dec	2.0	2.5	Dec	8.6		nil	0.5	82.0	6.51	-5.5	
Norway	5.1	Q3	16.1	3.4	5.3	Dec	3.0	3.5	Nov††	8.5		0.2	1.4	76.0	8.80	-3.6	
Poland	5.5	Q3	9.5	4.9	8.6	Dec	6.2	5.6	Jan‡§	0.5		-3.1	4.0	270	3.93	-5.8	
Russia	4.3	Q3	na	2.4	8.7	Jan	5.0	4.3	Dec‡§	7.1		0.7	9.4	275	74.7	-0.8	
Sweden	5.7	Q4	5.7	3.0	3.9	Dec	2.4	7.3	Dec‡§	3.7		-0.3	0.7	53.0	9.09	-8.2	
Switzerland	4.1	Q3	6.8	3.0	1.5	Dec	1.1	2.3	Jan	5.0		0.5	0.3	67.0	0.92	-3.3	
Turkey	7.4	Q3	11.3	3.4	48.7	Jan	35.3	10.9	Nov‡§	-3.3		-3.9	21.0	841	13.6	-47.9	
Australia	3.9	Q3	-7.5	3.3	3.5	Q4	2.6	4.2	Dec	1.6		-4.6	2.1	90.0	1.39	-7.2	
Hong Kong	5.4	Q3	0.5	2.9	2.4	Dec	2.2	3.9	Dec††	1.3		-1.5	1.8	75.0	7.79	-0.5	
India	8.4	Q3	54.1	7.0	5.6	Dec	4.6	6.6	Jan	-1.6		-5.9	6.8	73.0	74.8	-2.6	
Indonesia	5.0	Q4	na	5.3	2.2	Jan	3.5	6.5	Q3‡§	-0.5		-4.9	6.5	29.0	14,358	-2.5	
Malaysia	-4.5	Q3	na	4.5	3.2	Dec	2.8	4.2	Dec‡§	3.2		-6.1	3.8	94.0	4.18	-3.1	
Pakistan	6.0	2021**	na	3.4	13.0	Jan	8.0	6.9	2019	-5.6		-6.4	10.9	†††	94.0	175	-9.1
Philippines	7.7	Q4	13.0	5.3	3.0	Jan	3.9	7.4	Q4‡§	-2.9		-7.2	5.0	194	51.4	-6.4	
Singapore	5.9	Q4	10.7	3.8	4.0	Dec	2.8	2.4	Q4	17.3		-1.8	1.9	80.0	1.34	-0.8	
South Korea	4.0	Q4	4.5	2.9	3.6	Jan	2.3	3.5	Dec‡§	4.1		-2.9	2.7	88.0	1,196	-6.7	
Taiwan	4.9	Q4	11.1	3.2	2.6	Dec	2.4	3.7	Dec	14.6		-0.7	0.7	39.0	27.8	0.6	
Thailand	-0.3	Q3	-4.2	2.9	3.2	Jan	1.9	1.5	Dec‡§	1.8		-4.7	2.0	65.0	32.7	-8.5	
Argentina	11.9	Q3	17.3	3.0	50.9	Dec	51.8	8.2	Q3‡§	0.5		-4.4	na	na	106	-16.6	
Brazil	4.0	Q3	-0.4	0.3	10.4	Jan	7.6	11.6	Nov‡§††	-0.7		-7.3	11.5	387	5.27	3.0	
Chile	17.2	Q3	21.0	3.0	7.7	Jan	6.9	7.2	Dec‡§††	-2.4		-3.5	5.8	323	816	-10.0	
Colombia	12.9	Q3	24.9	4.2	6.9	Jan	4.7	11.0	Dec‡§	-4.9		-6.8	8.9	401	3,933	-9.0	
Mexico	1.0	Q4	-0.4	1.9	7.1	Jan	5.1	4.0	Dec	-0.9		-3.3	7.7	238	20.5	-2.0	
Peru	11.4	Q3	15.0	2.3	5.7	Jan	5.5	6.4	Dec‡§	-2.4		-3.0	6.1	233	3.84	-5.2	
Egypt	9.8	Q3	na	5.4	5.9	Dec	6.3	7.5	Q3‡§	-3.9		-6.9	na	na	15.7	-0.5	
Israel	4.5	Q3	2.7	4.4	2.8	Dec	2.7	4.3	Dec	5.1		-2.7	1.7	81.0	3.21	1.2	
Saudi Arabia	3.3	2021	na	5.0	1.2	Dec	1.8	6.6	Q3	6.3		2.0	na	na	3.75	nil	
South Africa	2.9	Q3	-5.8	2.1	5.9	Dec	4.8	34.9	Q3‡§	-0.7		-6.3	9.2	65.0	15.3	-3.5	

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 Feb 9th	% change on:	
		one week	Dec 31st 2020
United States S&P 500	4,587.2	nil	22.1
United States NAScomp	14,490.4	0.5	12.4
China Shanghai Comp	3,480.0	3.5	0.2
China Shenzhen Comp	2,317.2	2.4	-0.5
Japan Nikkei 225	27,579.9	0.2	0.5
Japan Topix	1,952.2	0.8	8.2
Britain FTSE 100	7,643.4	0.8	18.3
Canada S&P TSX	21,604.2	1.1	23.9
Euro area EURO STOXX 50	4,204.1	-0.4	18.3
France CAC 40	7,130.9	0.2	28.5
Germany DAX*	15,482.0	-0.8	12.9
Italy FTSE/MIB	27,129.0	-0.9	22.0
Netherlands AEX	769.9	0.6	23.3
Spain IBEX 35	8,846.4	1.5	9.6
Poland WIG	68,491.4	-0.6	20.1
Russia RTS, \$ terms	1,534.8	4.8	10.6
Switzerland SMI	12,367.8	0.1	15.5
Turkey BIST	2,042.9	2.0	38.3
Australia All Ord.	7,572.8	2.3	10.5
Hong Kong Hang Seng	24,830.0	4.3	-8.8
India BSE	58,466.0	-1.8	22.4
Indonesia IDX	6,834.6	1.9	14.3
Malaysia KLSE	1,551.5	2.6	-4.7

	% change on:		
	index Feb 9th	one week	Dec 31st 2020
Pakistan KSE	46,339.8	0.5	5.9
Singapore STI	3,420.0	5.2	20.3
South Korea KOSPI	2,768.9	4.0	-3.6
Taiwan TWI	18,151.8	2.7	23.2
Thailand SET	1,703.2	2.1	17.5
Argentina MERV	87,393.1	-2.5	70.6
Brazil BVSP	112,461.4	0.5	-5.5
Mexico IPC	52,761.9	1.4	19.7
Egypt EGX 30	11,596.3	-0.8	6.9
Israel TA-125	2,083.9	1.3	32.9
Saudi Arabia Tadawul	12,205.5	0.1	40.5
South Africa JSE AS	76,690.9	2.0	29.1
World, dev'd MSCI	3,124.9	0.4	16.2
Emerging markets MSCI	1,239.8	2.2	-4.0

US corporate bonds, spread over Treasuries

Basis points	latest	Dec 31st 2020
Investment grade	133	136
High-yield	366	429

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

Commodities

The Economist commodity-price index 2015=100

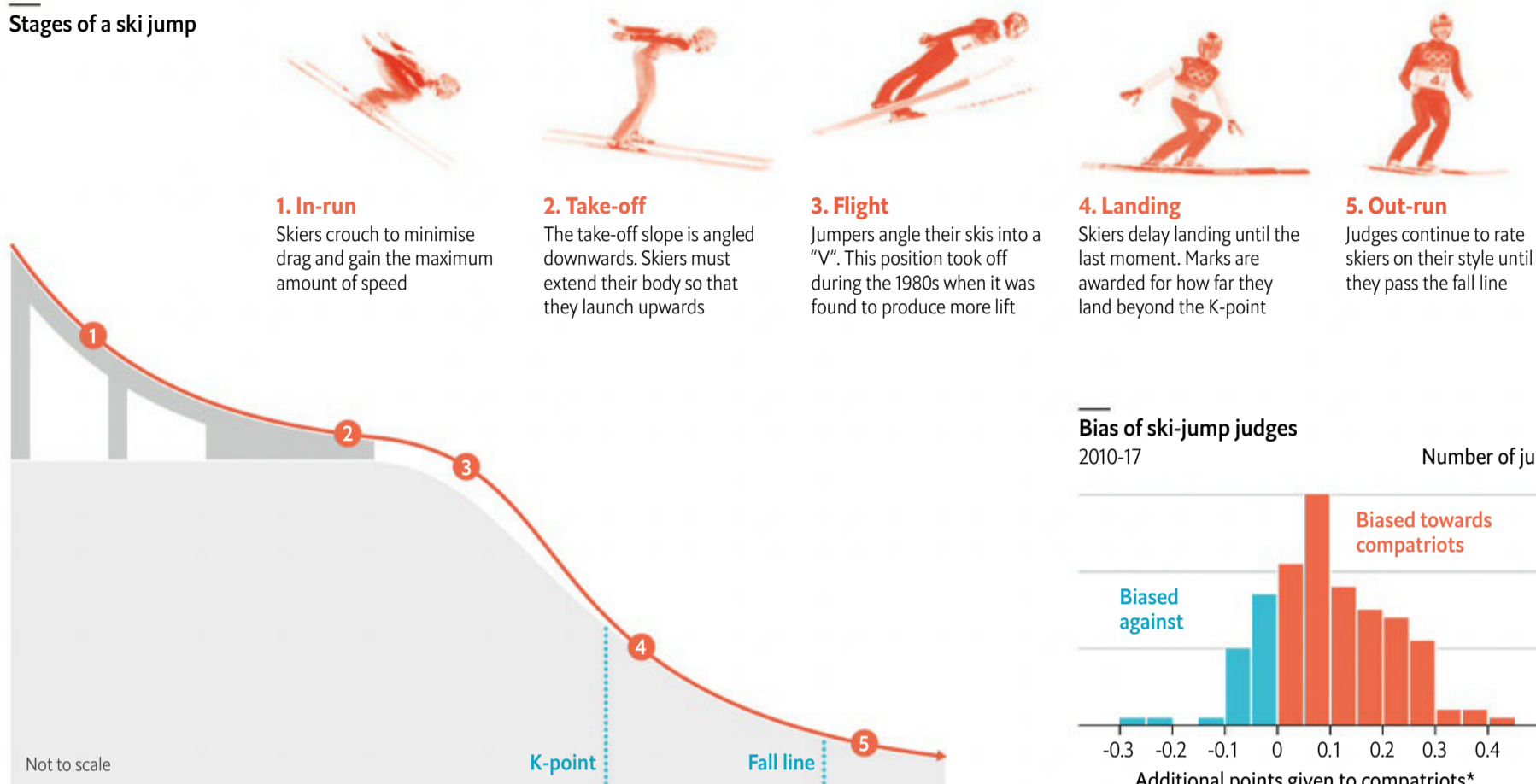
	Feb 1st	Feb 8th*	% change on	
			month	year
Dollar Index				
All items	175.8	179.9	7.8	11.7
Food	147.1	149.5	6.3	17.7
Industrials				
All	202.7	208.2	8.8	7.9
Non-food agriculturals	164.7	173.5	3.0	23.7
Metals	213.9	218.5	10.2	4.8
Sterling Index				
All items	198.7	202.5	8.2	13.7
Euro Index				
All items	173.4	174.7	7.0	18.3
Gold				
\$ per oz	1,806.4	1,826.4	0.7	-0.7
Brent				
\$ per barrel	89.2	91.0	8.6	48.7

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

For more countries and additional data, visit [Economist.com/indicators](https://www.economist.com/indicators)

→ Elite ski jumping is a harrowing sport. But athletes can get a nudge from the judge

Stages of a ski jump



*Average compared with other judges marking the same jump Source: "Nationalistic bias among international experts", by A. Krumer, F. Otto & T. Pawlowski, *Scandinavian Journal of Economics*, 2021

Who will judge the judges?

Nationalism affects the scoring of winter sports

IMAGINE HURLING yourself down a slope on skis for 100 metres—then running out of ground. You must drop into the frigid air, glide at a speed of 90kmph for five seconds, and somehow land gracefully 100 metres downhill. Winning a gold medal for ski jumping requires fearlessness, a quality very much in keeping with Olympian ideals. But some athletes may be helped by biased judging, which is not.

Ski jumping is scored not just on the distance leapt, but on style, which accounts for around two-fifths of an athlete's score. That aesthetic judgment is made by a panel of five judges of different nationalities, who assess each jump on a scale of 0 to 20. The best and worst scores are discarded, in an attempt to neutralise individual bias. Yet some still persists. Judges, shockingly, seem to favour athletes from their home countries.

That is the assessment of a recent paper by Alex Krumer of Molde University College in Norway, along with two colleagues, after examining 15,355 ski jumps in men's competitions held from 2010 to 2017. After controlling for factors such as the leniency of individual judges and the quality of ski-

jumpers, they found that nationalist bias was modest but widespread. The average bias was an additional 0.1 points. Nearly half of judges favoured compatriots in a way that was statistically significant.

At the Winter Olympics (which are currently being held in Beijing), patriotism may run especially high, and bias seems to increase. When we augmented the study by adding more Olympic results to the original data, we found that average bias nearly doubled to 0.18 points. *The Economist* asked the Fédération Internationale de Ski (FIS), the sport's governing body, for comment. FIS said it was unaware of the paper and declined further comment.

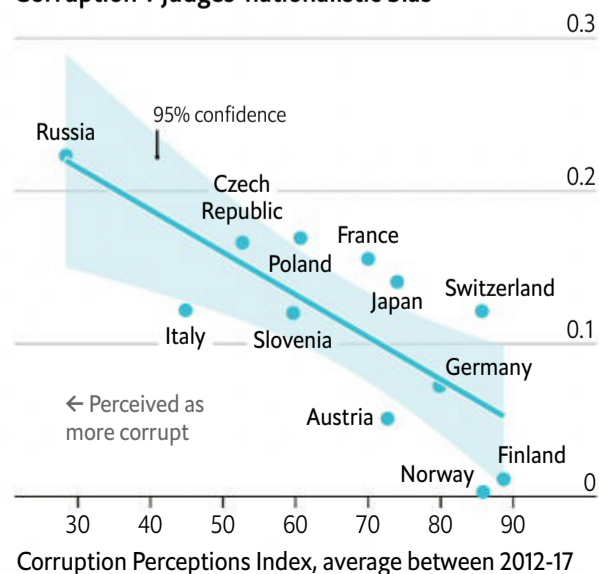
Bias differs markedly by country. The greatest favouritism, according to the authors of the study, comes from Russian

judges, who award an additional 0.2 points on average. Polish and French judges are in the middle of the pack. The typical Norwegian or Finnish judge demonstrates no detectable bias. Interestingly, the bias of a country's ski-jumping judges is correlated with that country's overall level of corruption, as measured by Transparency International's Corruption Perceptions Index.

Widespread favouritism rarely affects the results, however. There are two reasons for this. First, the bias is small in comparison with the natural variation in judges' scores that occurs by chance (roughly 0.3 points). Second, the discarding of the highest and lowest scores means that especially biased scores are often not counted. Our counterfactual analysis of the 203 competitions examined between 2010 and 2017, in which nationalist bias was eliminated, found that only 14 medals (or 2.3%) would have changed hands.

This is hardly the first finding of bias in sport—or even the most egregious. One study on figure skating, another Olympic event, found that nationalist favouritism was roughly 60% larger than it is in ski jumping. Another paper, first published in 2007, found that American referees for the National Basketball Association (NBA) called fewer fouls against players of their own race. After widespread media attention, the NBA changed its policies for reviewing contested calls. A follow-up paper six years later found that this bias had disappeared entirely. Admission is often the first step to recovery. ■

Corruption v judges' nationalistic bias





India's nightingale

The country's most celebrated playback singer died on February 6th, aged 92

THE SCENE is the garden of a palace in Allahabad where a young woman, ghostly in the twilight, is singing on a swing. Inside, in the grand ballroom, the owner of the palace sees a chandelier swaying in time to the song. The haunting beauty of this voice draws him out into the garden, but as he approaches the young woman disappears. All that is left is the empty swing and the song, "Aayega Aanevala", "He will come, he who is to come":

The world is at rest, but lovers are restless
In the stillness, footsteps are approaching,
As if someone is passing through my soul.
Or is it only my heart beating?

The young woman in "Mahal" (The Palace), made in 1949, was the great actress Madhubala, then still a teenager. But she was not the one singing. In trademark Bollywood fashion she lip-synched the words to a song recorded by a short, slightly dumpy, barefoot girl in a sweltering studio with the fans turned off, because they made too much noise. For "Aayega Aanevala" she crept towards the microphone from 20 feet away, mimicking the echoes of the song. The combination of her passionate voice with the elegant beauty of Madhubala was a peak of Bollywood's art.

Her name, mentioned only as the song drew wide acclaim, was Lata Mangeshkar. She came from Indore in central India, the daughter of a touring theatre producer. From "Mahal" on, over seven decades of playback singing, her fame grew exponentially. She performed for every Indian prime minister, sang for actresses from Madhubala to Kajol, did duets with all the famous actors and built a catalogue of more than 5,000 songs, half of them solos. Directors fought to have her in their films, and she sang in more than a thousand. Inevitably, her voice also became the soundtrack of newly independent India. Through PA systems in malls and factories, from radios in chai stalls and barbers' stands, out of the

windows of idling, hooting cars, at funerals and weddings, her songs wove India together. She seemed to be always there, describing love's joy and pain, famously as the defiant courtesan Anarkali in "Pyaar Kiya to Darna Kya" ("Why Fear to be in Love?") from the film "Mughal e Azam", "The Emperor of the Moghuls":

Why fear to be in love?
I've loved, not stolen anything.
Why hide and sigh?

She could never have imagined fame on such a scale. It meant that she could support her mother and her siblings and, later, get a second-hand Mercedes, indulge her love of Test cricket, buy diamonds and take holidays in Las Vegas, where she played the slots all night. But when, at five, she had begun to sing in her father's productions, she feigned headaches to avoid his stern teaching. And when he died and she, at 13, took up acting to support the family, she could not bear to be in front of the camera. It did not love her, with her plumpness and her eyebrows, which one director told her were "too broad". Nor could she bear to be directed what to say. By contrast to be an unseen playback singer, freely adding high emotions to the drama, felt exactly right.

Not that it was always easy. Her voice at first struck many as too high and thin, when the vogue was for a gutsier sound. With practice she made it fuller, improved the vital coloratura and developed her own honeyed way of singing, which others quickly copied. Languages other than Hindi or her native Marathi (she sang in dozens), were tricky, but she worked hard to perfect them. Practise, practise, was her mantra; and then get tough. She fought doggedly for playback singers to share in the royalties given to composers, as well as for higher fees for herself. There were frosty spells in that dispute when she refused to work with Mohammed Rafi, the playback partner with whom she sang 450 duets, and the director Raj Kapoor, whom she usually counted as a friend.

Nor did she stay behind the scenes for long. By the 1970s she was touring the world, bringing Bollywood's music to the West and to proper concert halls. In 1974 she sang at the Royal Albert Hall, the first Indian to do so. Her early training had been classical, including playing sitar and composing, but she was confident that Bollywood's music could stand beside the older kind. Her father would never have agreed, but now both she and her sister Asha Bhosle were playback superstars.

She also featured in most concerts the song she had sung in 1963 in front of Jawaharlal Nehru, then prime minister. India had just lost a border war with China, and her song, "Aye Mere Watan ke Logon" ("Ye People of my Land") was for the martyrs.

When the great Himalayas were wounded and our freedom in danger,
They fought until their last breath and fell to the ground...
Some were Sikh, Jaat or Marathi; some Gurkha or Madrasi,
But each man who died there was an Indian....

As she sang Nehru cried, and afterwards he thanked her.

Her ardent, simple patriotism made some think that she belonged in politics, and in 1999 she was appointed to the Rajya Sabha, the upper house of parliament. She did not go much and did not take any MP's perks, which included a free phone and cooking-gas connection. What did she know about politics? Her world was music, and it was wide enough to contain Mozart, Beethoven, Chopin, the Beatles and Nat King Cole. Music was her god and her husband too, for she never married.

In a way (though Pakistan embraced her, too) she was also married to her country. She was everyone's "Didi", sister, and *divya*, divine. When she died, of covid, people wept in the streets. Flags flew at half-mast, and there were two days of national mourning. At her funeral Narendra Modi himself laid flowers on her coffin. Her last song had been a tribute to him and to the Indian army.

All that was left was the empty swing. The swing, and the songs; the pain and the joy. ■

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