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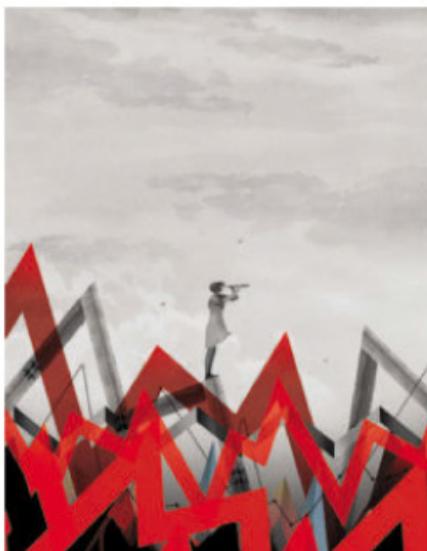
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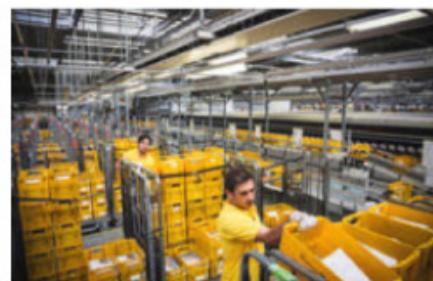


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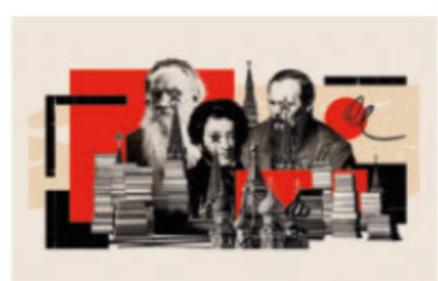
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 to take part in "a severe contest between intelligence, which presses forward, and an unworthy, timid ignorance obstructing our progress."

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In the first round of **Brazil's** presidential election Jair Bolsonaro, the populist incumbent, did better than expected. He had been trailing Luiz Inácio Lula da Silva, a leftist ex-president, by double digits in the polls for months, but on the night he was only five points behind. The two candidates now head to a run-off on October 30th. Mr Bolsonaro, a fan of Donald Trump, falsely suggests that the election is likely to be rigged, and may not accept the result if he loses.

Russia went through the motions of illegally annexing four provinces of Ukraine, following sham referendums held at gunpoint. Vladimir Putin now claims that these provinces are part of Russia, but his spokesman was unable to say exactly where the borders might be. Russia does not fully control any of the four, and holds only roughly half of two of them. Mr Putin's land-grab was widely condemned.

Ukraine ignored it and continued to push back the Russian invaders. Its forces recaptured Lyman, a rail hub, and advanced rapidly in the south, where tens of thousands of Russian troops are at risk of being trapped on the west side of the Dnieper river. The bridges they might retreat across have been blown up. Some of Mr Putin's henchmen sought to blame Russia's defence minister, Sergei Shoigu, for the shambles.

The Kremlin said it had drafted 200,000 men to fight in Ukraine. At least 300,000 have fled Russia since the **draft** was announced. Finland stopped issuing tourist visas to Russians, many of whom have

been using Helsinki airport to escape on planes that are not subject to sanctions.

Germany's €200bn (\$197bn) energy aid package fuelled fury in Europe. Some politicians said that by going it alone Germany had undermined a common approach to dealing with the energy crunch. The European Commission said it was committed to "avoiding harmful subsidy races" in the single market.

The inaugural meeting of the **European Political Community** took place in Prague. Leaders from the 27 member states of the EU and 17 other European countries, including Britain, Switzerland, Turkey, and by video link, Ukraine, gathered to discuss security and economic issues. The forum was proposed by Emmanuel Macron, the president of France, as a means of forging pan-European unity on a number of issues.

Denmark called an early election for November 1st. The country faces soaring energy bills and is nervous about Russian aggression after two gas pipelines were sabotaged in nearby waters. Also, Mette Frederiksen, the prime minister, has come under pressure for having illegally ordered a cull of mink in 2020, believing it would help stop the spread of covid-19.

After ravaging Cuba, **Hurricane Ian** swept through Florida, killing 120 people. That was the highest storm death toll in the state since 1935.

The lady is for turning

Britain's Conservative government plunged in the polls after markets punished its plan for unfunded tax cuts. A month after taking office, Liz Truss, the prime minister, is more unpopular than Boris Johnson, her predecessor, ever was. Kwasi Kwarteng, the chancellor of the exchequer, dropped plans to abolish the 45% top rate of tax. The Tories bickered over welfare cuts and other

policies. Standard & Poor's and Fitch put Britain's credit rating on a "negative" outlook.

Thailand's constitutional court ruled that Prayuth Chan-ocha, the prime minister, had not exceeded the constitution's eight-year term limit and could stay in power. Mr Prayuth had been suspended from office by the court in August while it heard an opposition-party petition arguing that his time was up.

Also in Thailand, dozens of people, mostly children, were murdered in a gun-and-knife attack at a **day-care centre** in the north-east. The suspect, said to be a former police officer, killed himself.



A stampede at a football stadium in the **Indonesian** city of Malang killed at least 131 people. It was triggered by police firing tear-gas to disperse fans who had run onto the pitch.

A grid failure in **Bangladesh** left 75% of the country without electricity. Power was restored to Dhaka, the capital, by evening, and to the rest of the country by the following day. Bangladesh, like many poor countries, is suffering from shortages of gas as Europe tops up its supplies for winter.

North Korea fired a ballistic missile that flew more than 4,000km, far enough to reach Guam. It was the farthest a North Korean missile has ever travelled. A South Korean missile test ended in failure when it crashed to the ground.

Protests against **Iran's theocracy** continued across the country. Some of the most

striking were in universities and schools, where many female students threw off their headscarves and chanted songs denouncing the bossiness and corruption of clerical rule.

The two main sides in the eight-year-long civil war in **Yemen** failed to renew a truce signed in April that had been extended several times. But all-out war has yet to resume. The United Nations special envoy, Hans Grundberg, begged the adversaries to return to negotiations.

The zero-covid approach

Xinjiang in western China suspended passenger train services leaving the region to prevent the spread of covid. A local official said Xinjiang was facing a "major public-health emergency".

Indonesia became the first country to approve the emergency use of an mRNA **covid vaccine** developed in China. The Chinese government has yet to approve any mRNA vaccines for use among its own population, except in clinical trials.

Burkina Faso suffered its second coup in less than a year. The new regime seized power after accusing the old one of not doing enough to stop jihadists who now plague large parts of the country.

Ethiopia agreed to participate in peace talks hosted by the African Union with rebel forces from Tigray that it has been battling for two years. The war has left thousands of people starving in Tigray.

The commander of **Uganda's** army, Lieutenant-General Muhoozi Kainerugaba, threatened on Twitter to invade neighbouring Kenya. It was a joke, but Kenyans did not find it funny. Uganda's president, Yoweri Museveni, stripped the general of his job but also promoted him. The general is his son, and possibly his favoured successor.

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Elon Musk changed course and offered to go ahead with his \$44bn deal to buy Twitter, but only if a forthcoming trial that could force him to complete the takeover is stopped. A recent preliminary hearing in the case did not go well for his legal team. The mercurial Mr Musk offered to take Twitter private in April, said the offer was on hold in May, and abandoned the deal in July, prompting the legal action. He has suggested that he will turn the platform into "X", an everything app, similar perhaps to the superapps that combine messaging, shopping and services in Asia.

A cruel summer



Stockmarkets rallied briefly over the first two days of trading of the fourth quarter, after a brutal sell-off at the end of the third quarter. Despite some gains in August, share indices recorded an overall loss from July 1st to September 30th. The S&P 500 was down by 5% over the quarter—September was its worst month since March 2020, the start of the pandemic. The NASDAQ Composite shed 4% and the Dow Jones Industrial Average 7%. The pain was worse in China. The CSI 300, which comprises stocks on the Shanghai and Shenzhen exchanges, finished the quarter 15% lower than at the start.

Bond markets were calmer. The yield on ten-year British gilts eased back to around 4% after the government ditched its plan to scrap the top rate of income tax (two months ago the yield was around 2%). The yield on the ten-year US Treasury fell back to 3.6% having risen above 4%. In Britain

banks started re-offering some **mortgage products** they had withdrawn amid the market uncertainty. The interest rate on an average two-year fixed-rate mortgage rose above 6% for the first time since 2008.

The share prices of **Chinese property companies** rebounded following a number of government announcements to shore up the housing market. In addition, the People's Bank of China lowered interest rates on certain loans for first-time buyers.

OPEC+ said it would cut **oil production** by 2m barrels a day, around 2% of global supply. The headline figure is the biggest reduction to output since 2020, but some OPEC members are already struggling with production targets so the overall effect will be lower. Still, it was a blow for the Biden administration and European governments, which had pressed the cartel to keep cuts to a minimum so that prices don't rise. The White House press secretary said that OPEC was now clearly "aligning with Russia".

Annual **inflation** in the Netherlands (measured by the CPI) surged to 14.5% in September. Energy prices were up

by 200%, year on year. Turkey's inflation rate rose above 83%; transport and food prices increased at an even faster clip.

Australia's central bank lifted its main interest rate by a quarter of a percentage point, to 2.6%. Markets had expected a bigger rise, but the bank defended the smaller move because the rate has "increased substantially" this year.

Executives at **Credit Suisse** had to battle rumours that the bank is in trouble. A memo sent by the chief executive, Ulrich Körner, to staff, reassuring them about the bank's "strong capital base and liquidity position", elicited the opposite effect in the markets. Its credit default swaps, which act as an insurance of a default, soared to new highs. Cooler heads dismissed the idea that Credit Suisse would become the next Lehman Brothers.

Apple will have to adapt the **charger for iPhones** in the EU, after the European Parliament approved new rules to standardise charging points for linking electronic devices to USB-C connections. The change applies to all products, so some items made by Samsung and others will also have to adapt.

The World Trade Organisation forecast that the **global trade in goods**, measured by volume, will grow by 3.5% this year, but by only 1% in 2023. Demand for imports will soften, it said, for a variety of reasons related to the squeeze on household spending.

Geely, a Chinese carmaker that owns the Volvo and Lotus brands, bought a 7.6% stake in **Aston Martin**. Geely has long wanted a piece of the British maker of sports cars (it is seen as a potential buyer of the firm), and says it looks forward to future collaborations.

Death and taxes

Dignity, the only publicly listed funeral provider in Britain, reported a half-year pre-tax loss. The firm is not immune from the more earthly problems bedevilling other businesses. Rising fuel costs have caused it to consider a surcharge on the gas burned at its crematoriums. And although lower death rates from covid-19 are a blessing for us all, it has made year-on-year comparisons about the business difficult. Still, Dignity noted "positive signs" about its market, a nod to the fact that there will always be a demand for its services.



What next?

A new era of macroeconomics is emerging, bringing promise and peril

FOR MONTHS there has been turmoil in financial markets and growing evidence of stress in the world economy. You might think that these are just the normal signs of a bear market and a coming recession. But, as our special report this week lays out, they also mark the painful emergence of a new regime in the world economy—a shift that may be as consequential as the rise of Keynesianism after the second world war, and the pivot to free markets and globalisation in the 1990s. This new era holds the promise that the rich world might escape the low-growth trap of the 2010s and tackle big problems such as ageing and climate change. But it also brings acute dangers, from financial chaos to broken central banks and out-of-control public spending.

The ructions in the markets are of a magnitude not seen for a generation. Global inflation is in double digits for the first time in nearly 40 years. Having been slow to respond, the Federal Reserve is now cranking up interest rates at the fastest pace since the 1980s, while the dollar is at its strongest for two decades, causing chaos outside America. If you have an investment portfolio or a pension, this year has been gruesome. Global shares have dropped by 25% in dollar terms, the worst year since at least the 1980s, and government bonds are on course for their worst year since 1949. Alongside some \$40trn of losses there is a queasy sense that the world order is being upended as globalisation heads into retreat and the energy system is fractured after Russia's invasion of Ukraine.

All this marks a definitive end to the age of economic placidity in the 2010s. After the global financial crisis of 2007-09 the performance of rich economies assumed a feeble pattern. Investment by private firms was subdued, even at those making monster profits, while governments did not take up the slack: the public capital stock actually shrank around the world, as a share of GDP, in the decade after Lehman Brothers collapsed. Economic growth was sluggish and inflation was low. With the private and public sectors doing little to stimulate more activity, central banks became the only game in town. They held interest rates at rock-bottom levels and bought huge volumes of bonds at any sign of trouble, extending their reach ever further into the economy. On the eve of the pandemic central banks in America, Europe and Japan owned a staggering \$15trn of financial assets.

The extraordinary challenge of the pandemic led to extraordinary actions which helped unleash today's inflation: wild government stimulus and bail-outs, temporarily skewed patterns of consumer demand and lockdown-induced supply-chain tangles. That inflationary impulse has since been turbocharged by the energy crunch as Russia, one of the largest exporters of fossil fuels along with Saudi Arabia, has isolated itself from its markets in the West. Faced with a serious inflation problem the Fed has already raised rates from a maximum of 0.25% to 3.25% and is expected to take them to 4.5% by early 2023. Globally, most monetary authorities are tightening too.

What on earth comes next? One immediate fear is of a blow-up, as a financial system that has become habituated to low rates wakes up to the soaring cost of borrowing. Although one mid-

sized lender, Credit Suisse, is under pressure, it is unlikely that banks will become a big problem: most have bigger safety buffers than in the past. Instead the dangers lie elsewhere, in a new-look financial system that relies less on banks and more on fluid markets and technology (see Finance & economics section). The good news is that your deposits are not about to go up in smoke. The bad news is that this system for financing firms and consumers is opaque and hypersensitive to losses.

You can already see this in the credit markets. As firms that buy debt shy away from risk, the interest rate on mortgages and junk bonds is soaring. The market for "leveraged loans" used to finance corporate buy-outs has seized up—if Elon Musk buys Twitter the resulting debts may become a big problem (see Business section). Meanwhile investment funds, including pension schemes, face losses on the portfolios of illiquid assets they have accumulated. Parts of the plumbing could stop working. The Treasury market has become more erratic (see Buttonwood) while European energy firms have faced crushing collateral calls on their hedges. Britain's bond market has been thrown into chaos by obscure derivatives bets made by its pension funds.

If markets stop working smoothly, impeding the flow of credit or threatening contagion, central banks may step in: already the Bank of England has done a u-turn and started buying bonds

again, cutting against its simultaneous commitment to raise rates. The related belief that central banks will not have the resolve to follow through on their tough talk is behind the other big fear: that the world will return to the 1970s, with rampant inflation. In one sense this is alarmist and over the top. Most forecasters reckon inflation in America will fall from the present 8% to 4% in 2023 as energy price-rises

ebb and higher rates bite. Yet while the odds of inflation going to 20% are tiny, there is a glaring question about whether governments and central banks will ever bring it back down to 2%.

A moving target

To understand why, look beyond the hurly-burly to the long-term fundamentals. In a big shift from the 2010s, a structural rise in government spending and investment is under way. Ageing citizens will need more health care. Europe and Japan will spend more on defence to counter threats from Russia and China. Climate change and the quest for security will boost state investment in energy, from renewable infrastructure to gas terminals. And geopolitical tensions are leading governments to spend more on industrial policy. Yet even as investment rises, demography will weigh ever more heavily on rich economies. As people get older they save more, and this excess of savings will continue to act to depress the underlying real rate of interest.

As a result the fundamental trends in the 2020s and 2030s are for bigger government but still-low real interest rates. For central banks this creates an acute dilemma. In order to get inflation down to their targets of roughly 2% they may have to tighten enough to cause a recession. This would incur a high human cost in the form of job losses and trigger a fierce political back-►



► lash. Moreover, if the economy deflates and ends up back in the low-growth, low-rate trap of the 2010s, central banks may once again lack enough stimulus tools. The temptation now is to find another way out: to ditch the 2% inflation targets of recent decades and raise them modestly to, say, 4%. That is likely to be on the menu when the Fed begins its next strategy review in 2024.

This brave new world of somewhat higher government spending and somewhat higher inflation would have advantages. In the short run it would mean a less severe recession or none at all. And in the long run it would mean that central banks have more room to cut interest rates in a downturn, reducing the need for bond-buying and bail-outs whenever anything goes wrong, which cause ever-greater distortion of the economy.

Yet it also comes with big dangers. Central banks' credibility

will be damaged: if the goalposts are moved once, why not again? Millions of contracts and investments written on the promise of 2% inflation would be disrupted, while mildly higher inflation would redistribute wealth from creditors to debtors. Meanwhile, the promise of moderately bigger government could easily spiral out of control, if populist politicians make reckless spending pledges or if state investments in energy and industrial policy are poorly executed and morph into bloated vanity projects that drag down productivity.

These opportunities and dangers are daunting. But it is time to start weighing them and their implications for citizens and businesses. The biggest mistakes in economics are failures of imagination that reflect an assumption that today's regime will last for ever. It never does. Change is coming. Get ready. ■

Brazil's election

On a knife-edge

Luiz Inácio Lula da Silva should move to the centre to beat Jair Bolsonaro

LIKE A SUDDEN encounter with an anaconda, it was tighter than expected. Several polls had shown Luiz Inácio Lula da Silva, a leftist former president, beating Jair Bolsonaro, the right-wing incumbent, by double digits. Some predicted that Lula would win over 50% in the first round of Brazil's presidential election, making a second round unnecessary. But in the actual vote on October 2nd he won only 48% to Mr Bolsonaro's 43%. (The reason the polls undercounted Mr Bolsonaro's supporters is uncertain, but it may be that many are "shy", or suspicious of pollsters and reluctant to share their views with them.) The two candidates will face a run-off on October 30th, and Brazil faces a further month of polarisation (see Americas section).

Lula remains the narrow favourite, not least because Mr Bolsonaro repels so many voters: he is crass, bragging about his virility and sneering at women he deems unattractive. He is a Trumpian populist, who lies as easily as he breathes and imagines conspiracies everywhere. He makes no effort to stop the destruction of the Amazon rainforest. His handling of covid-19 was disgraceful. His circle overlaps with organised crime. He undermines institutions, from the Supreme Court to democracy itself. He hints that the only way he can lose the election is if it is rigged, and that he will accept no result except victory. He openly incites violence. In a recent poll, nearly 70% of Brazilians said they feared physical harm because of their political views.

Yet despite Mr Bolsonaro's manifest unfitness for high office, Lula is only a few points ahead. Much of this comes down to two reasonable fears about him: that he may be too soft on corruption and too left-wing on economics.

Lula spent 18 months in prison for taking bribes and was freed in 2019 after his convictions were overturned. He maintains his innocence. But in the eyes of many voters the taint of graft still hangs over both him and his Workers' Party because of "Lava Jato" (Car Wash), a vast bribery scandal centred on the state oil giant. Lula has never apologised for Lava Jato, for which he bears some political responsibility. He should do so—and vow that if elected, he will pick a fearless attorney-general from the

list recommended by the public prosecutor's office.

On economics, Mr Bolsonaro's record has been fair. Inflation is falling, growth is picking up and the state has this year dished out extra aid to roughly 20m poorer families. Lula, when president, governed pragmatically and presided over a commodity boom, but failed to address underlying fiscal problems, such as out-of-control pensions. He chose an inept successor, Dilma Rousseff, on whose watch the economy crashed. This time, Lula would start with tougher fiscal conditions than he faced when last in power. And his platform, though vague, includes troubling streaks of old-fashioned leftism. He sees the state as the engine of growth; he wants to "Brazilianise" petrol prices.

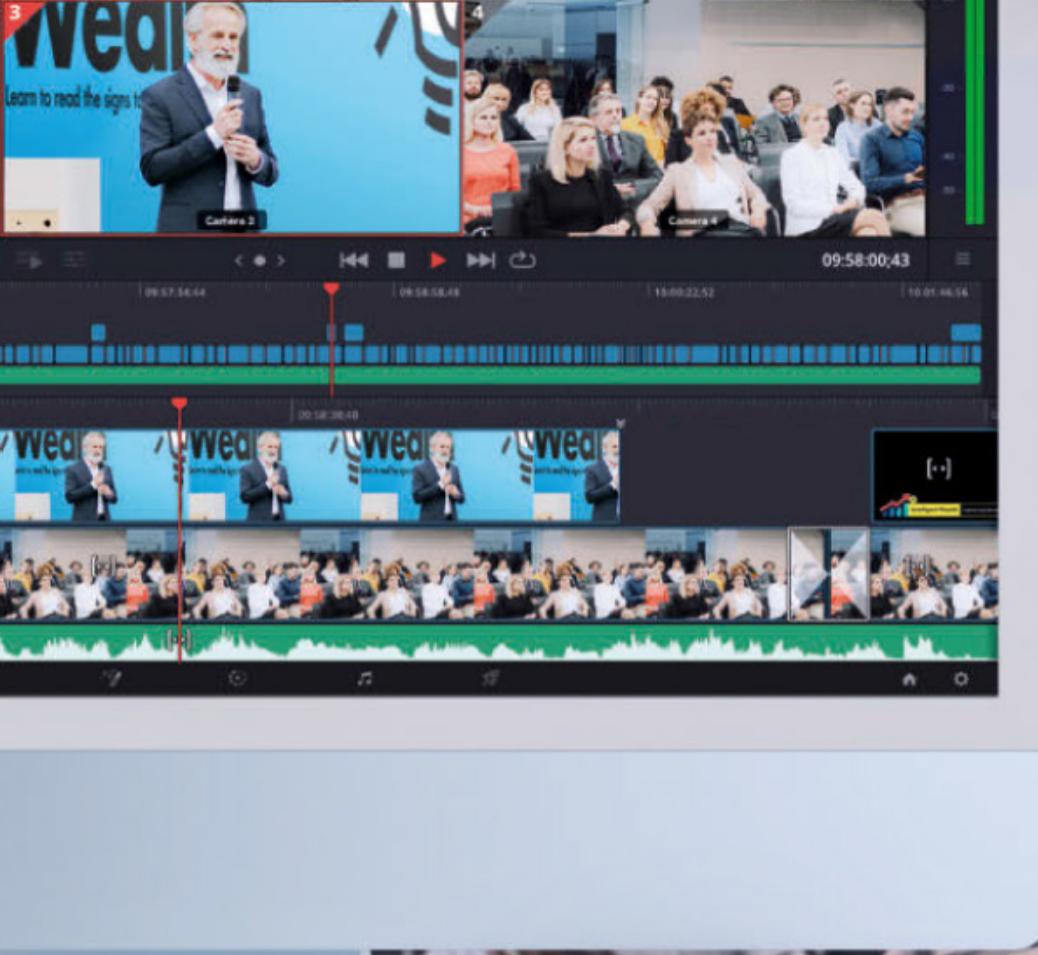
To convince swing voters that he can be trusted with their future prosperity, he should move closer to the centre. He should publicly name a moderate economist as his pick for finance minister. He should reassure farmers that he will not tolerate land invasions organised by social movements close to his party. (These are rarer than landowners claim, but widely feared.) He should promise not to nationalise any industries. He should stop toying with the idea of interfering with media freedom.

Such a shift would help him win—and govern. Many of Mr Bolsonaro's allies won office this week in Congress or as state governors. For Lula to muster a legislative majority, he will need help from the centre. Encouragingly, the two main candidates who were knocked out of the presidential race, both moderate, have endorsed him.

Jair today, gone tomorrow?

But the coming month will be tense whatever he does. Mr Bolsonaro has convinced a lot of Brazilians of terrifying falsehoods about Lula, such as that he would close down churches. The president has primed his supporters to distrust both Brazil's electronic voting system and its traditional, fact-checking media. If he loses, he may claim that he won and urge his supporters to take to the streets. A second term for such a man would be bad for Brazil—and the world. Only Lula can prevent it. Claiming the centre ground is the best way to do so. ■





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British politics

Truss deficit

The markets are a little calmer. The mess remains

IGET IT," said Liz Truss, the prime minister, in an address to the Conservative Party conference in Birmingham on October 5th, "and I have listened." She doesn't, and she hasn't. On September 23rd Britain's government spooked markets because it decided to embark on a borrowing spree to pay for big tax cuts. That caused a jump in yields on British government bonds and prompted the Bank of England to intervene in markets. At this week's conference the Tories offered a small change of policy, a masterclass in internecine warfare and little sign that they understand how much things have changed.

Start with the change in policy. By reversing his planned abolition of the top rate of income tax, Kwasi Kwarteng, the chancellor of the exchequer, headed off an immediate revolt among Tory MPs and calmed markets a little. But that reversal undoes only a small part of the damage. Giving rich people a tax break would have cost the Treasury an estimated £2bn (\$2.3bn, or 0.1% of GDP) in receipts; the tax cuts that remain will cost £43bn, and that is on top of an even bigger unfunded package to hold down energy bills. As Ms Truss said herself this week, abolishing the top rate of tax was not a core part of her plan, even if it was a totemic one. The fundamental question—how the government is going to pay for those tax cuts—remains.

The evidence suggests that the government itself does not know. Ms Truss and Mr Kwarteng have committed to producing a medium-term fiscal plan in the next few weeks, which will be scrutinised by the Office for Budget Responsibility (OBR), an independent watchdog. But the OBR is very unlikely to buy the government's line that tax cuts pay for themselves, and Ms Truss has opposed compensating tax rises as a matter of moral principle as well as economic policy. That leaves the option of spending cuts (see Bagehot) and the hope of supply-side reforms.

Slashing spending would be hard in the best of circumstances. Departmental budgets have already been squeezed by infla-

tion. Cutting back on capital spending would be a bizarre thing for a pro-growth government to do. But it has become harder still because of the ungovernability of the Conservative Party. Having forced a u-turn on the top rate of tax, rebellious Tory MPs are lining up to oppose the possibility of real-terms cuts to welfare payments. Cabinet members are breaking ranks, too; the principle of collective responsibility no longer applies.

As for promised supply-side measures to boost growth, Ms Truss is right that they are badly needed. But the risk is growing that a bodged set of tax cuts will be followed by a cartoonish mix of deregulation and posturing. A blanket commitment to repealing EU laws either means ditching good rules as well as bad, or a cosmetic exercise in relabelling European laws as British ones.

Plans for investment zones appear to be focused on left-behind places rather than the country's growth engines. Where there is local opposition to plans to build more homes and fast-track infrastructure projects, Tory MPs will be much less inclined to face it down on behalf of a prime minister who is already less popular than Boris Johnson at his nadir.

If the prime minister realises how much trouble she is in, she is not showing it. In her speech she railed against an "anti-growth coalition" of Remainers, protesters and pundits. She skated past the disastrous impact of the mini-budget and equated her critics with "enemies of enterprise". Those lines might get her applause from the same party members who elected her Tory leader, but the audiences she has to win round now have changed: Tory MPs who never much rated her; homeowners whose expected mortgage rates have jumped appreciably; and, scariest of all, bond-market investors who might once have trusted British policymakers to get on with things and now do not. The government lost credibility on September 23rd. The party conference has dented it further. That is not just bad news for Ms Truss, but for the economy she wants to invigorate. ■



Corporate consiglieri

Are management consultants useful?

Amid the snake oil and the scandals, the industry provides a valuable service

IF A LIST were made of the most reviled species in the professional world, only investment bankers would stand between management consultants and the top spot. Sceptics portray these corporate consiglieri as snake-oil salesmen, bamboozling chief executives and politicians with management gibberish and glossy charts while gorging on fat fees. Indeed, the profession was once the subject of a five-season skewering in a star-studded TV series. Its title: "House of Lies".

Recent events have provided even more reasons to hate consultants (see Business section). "When McKinsey Comes to Town", an exposé published on October 4th, drags its subject

through the mud with evidence of decades of scandalous behaviour. On September 30th prosecutors in South Africa brought criminal charges against the firm. (McKinsey says the book is a misrepresentation and denies the charges brought against it.) Its two big rivals, Bain & Company and the Boston Consulting Group (BCG), have also faced controversies. In France President Emmanuel Macron has come under attack after an inquiry this year found the government had spent \$1bn on consulting firms with "tentacular" links with the state.

Despite evidence of dubious conduct, business has never been better. The big three firms' total revenue has tripled since ►



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► 2010, to about \$30bn; the trio now employ around 70,000 people. That implies revenue per employee of over \$400,000, hinting at juicy pay packets for the people at the top. By comparison, the figure for the big four accountancy firms—Deloitte, PwC, EY and KPMG—is a comparatively meagre \$140,000.

What explains the boom? A shroud of secrecy makes it hard to calculate how much value the industry adds: few bosses or politicians would credit consultants for a successful turnaround. As a result there is a widespread view that all consultants are parasites and those who hire them are fools. In fact the firms have grown because they provide two services that bosses want—one more economically beneficial than the other.

The first is an outside opinion. When firms or governments make decisions, it can pay to buy in rigorous analysis. The danger is that this becomes a self-protection racket. When bosses want to push through controversial decisions, from firing staff to breaking up a firm, a consultant's backing can bolster their credibility. And legitimate scrutiny, whether from political opponents or board directors, can be easier to dodge using consultants' reports in pleasing fonts with scientific-looking tables.

The second service is unambiguously good, both for the people in charge and the wider economy: making available specialist knowledge that may not exist within some organisations, from deploying cloud computing to assessing climate change's impact on supply chains. By performing similar work for many clients, consultants spread productivity-enhancing practices.

One defence against an explosion of bogus advice would be better disclosure. Companies are already required to reveal how much they spend on their auditors and on investment bankers' fees on deals. The sums that individual firms spend on consultants often exceed this, running into the tens of millions of dollars a year, and should be made public too.

So far the industry has escaped the formal rules that govern lawyers and bankers. If it wishes to keep it that way, it should adopt a second measure: a code of conduct that all responsible consultancies adhere to. They should eschew providing advice that helps bigwigs at the expense of the institutions they run, or helps autocrats oppress their people. They should also police the revolving door between government jobs and consultancies. Consultants have much to offer, but also much still to prove. ■

Technology and politics

How will Elon Musk use his superpowers?

With great technological power comes great political responsibility

AS THE BOSS of Tesla, the world's most valuable carmaker, and SpaceX, the world's second-most valuable unicorn, Elon Musk is the stuff of business legend. As a gifted technologist with an enduring air of misfit adolescence he also has more than a whiff of the comic book about him. When he is talked about as an inspiration for Tony Stark in the "Iron Man" and "Avengers" movies, it is not just because he too is a fabulously rich, frequently irritating egotist with a saviour complex. It is because he has every intention of using the remarkable technological capabilities under his control to change the future course of history.

Mr Stark wanted to put a suit of artificially intelligent armour around the world. Mr Musk wants to help stabilise its climate (hence his focus on electric cars) and to establish an outpost of civilisation on Mars (hence the rockets, one of which sent four astronauts to the International Space Station on October 5th). To help fund the Mars effort, SpaceX launched Starlink, a huge constellation of satellites that provide internet access to isolated users. Meanwhile, Mr Musk said on October 3rd that he would, after all, buy Twitter, a social-media platform—a move he portrays as a civilisation-preserving defence of free speech (see Business section).

Given Mr Musk's desire to change the future, it is hardly surprising to see him using the powers he is accruing to intervene in the present, too. After the invasion of Ukraine, SpaceX sent Starlink terminals and switched on satellite coverage. Ukraine has been vocal in its gratitude for this intervention, which helped its cities restore vital services and its forces prevail on the battlefield (see Briefing). But it was less thrilled when Mr Musk took to Twitter this week to suggest a "peace plan" that would give Crimea to Russia, and possibly other occupied territories, too. Volodymyr Zelensky, Ukraine's president, asked his own

6.7m followers whether they preferred a pro-Ukraine Mr Musk or a pro-Russia one—a reminder, if one were needed, of Twitter's influence in shaping global perceptions of the war.

The fact that Mr Musk can, in a single week, get into a Twitter spat with the president of Ukraine, in an online discussion forum that he has just agreed to buy, while also sending people into orbit, demonstrates the extent to which his growing technological superpowers have granted him geopolitical clout. Should that be cause for admiration or concern?

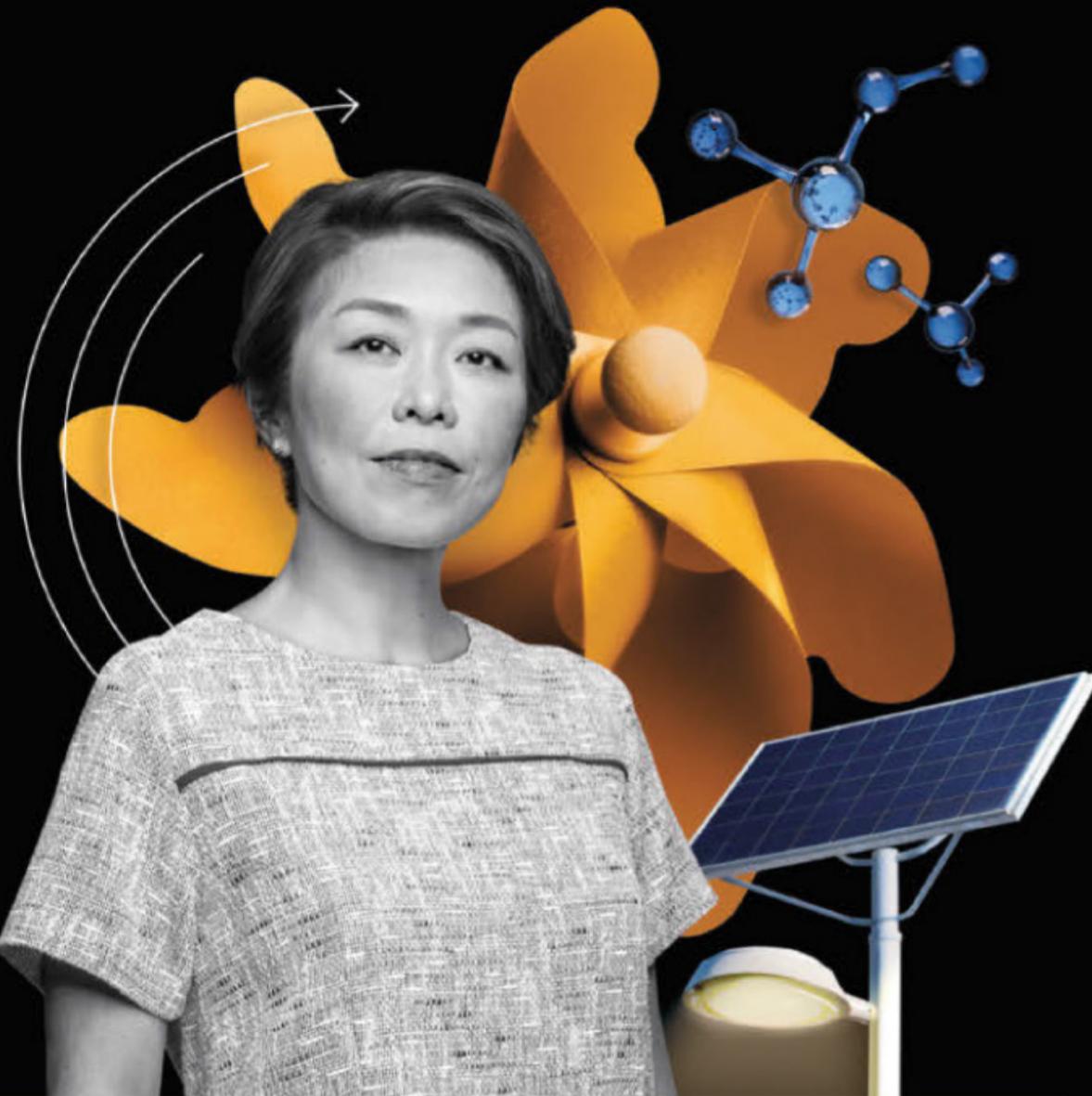
In themselves, Mr Musk's political musings on Twitter matter little. But given the platform's important role in the febrile world of politics, his decisions about Twitter itself (such as

whether to reinstate Donald Trump's access), will matter a lot more. So will decisions about Starlink. Whatever your politics, it is worrying that one man can choose whether to extend internet access to anywhere on Earth, can decide who can use it—and can turn it off at will.

There is no commercial case against Mr Musk's accumulation of power. Starlink is not a monopoly; nor is SpaceX's satellite-launch business (though it is currently the West's only option for launching astronauts into orbit); nor is Twitter. But all three have global importance, and will do for some time to come.

Mr Stark's attempt to put armour round the Earth led to its near destruction; the chastened billionaire subsequently accepted UN oversight. Mr Musk seems unlikely to follow suit. Comic-book fans must hope instead that he takes to heart the wisdom imparted to Peter Parker, aka Spider-Man: "With great power comes great responsibility." As Robert Caro observed in response to Lord Acton's famous dictum, power may not always corrupt, but it always reveals. What Mr Musk's power reveals will bear close inspection. ■





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Guns and crime

The American public's loss of faith in the police, which varies between communities, is a contributing factor to the rise in violence in recent years (Special report on violent crime in America, September 17th). But so are irresponsible efforts by the gun lobby, politicians eager for donations, and Supreme Court justices who reject reasonable gun regulations. Gun manufacturers encourage a vicious cycle by arguing that the more people have guns, the more unarmed people need to buy a weapon for protection.

The understandable default assumption among the police who engage directly with an individual or a group for whatever reason, legitimate or not, is that they are in a situation where guns are present and easily accessible. Like any human, their natural precaution is to be ready to respond as rapidly and promptly as possible to any movement that may be a reach for a weapon.

Imagine how much worse the situation may become if Republicans succeed in passing a federal law to require all states to honour gun-carry permits issued by another state, including in locations where alcohol is served and spirits, both literal and metaphorical, flow freely.

MARTYN ROETTER
Boston

Clearly, the police are not as sensitive as they ought to be in America. More focus should be paid to the "warrior" police culture, which is inculcated in police academies. The relatively brief, localised police-academy training emphasises the zealous enforcement of community service and a gung-ho spirit. Police trainers should realise that their graduates, who will come into daily contact with cultures of criminality and the like, can become hardened to the more delicate sensibilities needed to deal with racial diversity, human rights, and so on.

Indeed, the police must belong more genuinely to the

society they serve. A good model is the military academies, which ingrain value systems in cadets before they graduate and are assigned to duty, putting a firm emphasis on the public-service aspects of their role.

DOUGLAS SIKORSKI
Laguna Beach, California

Seeking unity in the EU

The use of qualified-majority voting (QMV) and the veto in the European Union is complicated (Charlemagne, September 24th). For one thing the Luxembourg Compromise of 1966 was a misnomer from the outset. It was not a compromise but an agreement to disagree. France held that a single member state's assertion of its vital national interest could override a qualified majority; the other five member states said that it could not. So the Luxembourg Compromise could not, cannot and will not be turned into a legally binding text.

Moreover, there are fundamental differences in negotiating culture that derive from a treaty providing for QMV and one requiring unanimity. In the case of QMV the risks perceived by individual member states to their interests have to be avoided by a process of negotiation and compromise (often successfully, which is why so few EU decisions actually require a formal vote). Unanimity, on the other hand, encourages intransigence and a refusal to negotiate.

Perhaps the most notable example of circumventing the unanimity requirement was when Nicolas Sarkozy and Angela Merkel persuaded their colleagues to find a way round an attempted veto of a fiscal treaty by David Cameron's government (to extract concessions over single-market financial-services legislation). But using this tactic is fraught with many difficulties and limitations, particularly in cases involving new accessions, foreign policy and security and tax.

That is why we can expect the EU to continue to struggle

over the scope of QMV. Most of the focus is on the use of what is called the *passerelle* clause in the existing treaty, which allows some limited extension of QMV without the need for treaty ratification by member states.

DAVID HANNAY
House of Lords
London

Dissociative literature

If Agatha Christie did indeed experience a dissociative fugue for 11 days in 1926 ("The lady vanishes", September 10th), she may have preferred to keep secret the sort of traumatic background that tends to accompany dissociative disorders—usually severe childhood emotional or physical neglect or abuse. I have treated dissociative patients for nearly 40 years, and I am repeatedly struck by their secretiveness. Often, they don't tell their spouse (or their therapist) many details of their dissociation, or of their childhood trauma.

Some of our greatest writers show evidence of highly creative, adaptive forms of dissociation. There are many such stories about pseudonymous authors in recent books that have been written by Carmela Ciuraru, John Mullan, Marcy North and Julie Phillips. Fernando Pessoa famously claimed it was his "heteronyms" that did his writing, and that he was merely the "empty stage" they lived their lives on.

RICHARD WAUGAMAN
Clinical professor of psychiatry
Georgetown University
Washington, DC

Political roots

The Brothers of Italy (FdI) has its roots in neo-fascism, you say ("Should Europe worry?", September 24th). True, there is an undisputable link between them. However, Italy's main opposition, the leftist Democratic Party, a sort of fusion between the Italian Communist Party and the left-leaning part of the

Christian Democratic party, has very deep non-democratic communist and Stalinist roots. Benito Mussolini has been dead for almost 80 years, whereas the Soviet Union, with its illiberal principles and gulags, was active until 1991. Should we also consider these political roots as a threat to Europe? I don't think so. The same, I dare say, with the FdI.

FRANCESCO FRANSONI
Retired Italian ambassador
Rome

Myanmar and Ukraine

Banyan said that "only two Asian governments, the dictatorships of North Korea and Myanmar" cheered Vladimir Putin's aggression when Russia invaded Ukraine in February (September 24th). To give credit where credit is due, not only did Myanmar not cheer on Mr Putin's aggression, its ambassador at the United Nations also joined 140 other member states and voted for the resolution deplored Russia's actions, from which India and China abstained.

STEVEN HONG
North Vancouver, Canada

Fulsome praise

Johnson's column on Janus words, which have two opposite meanings, was deliciously intriguing (September 10th). In French we have quite a few of them. *Plus*, for instance, can mean "more" or "no more" depending on how it is used. *Hôte* can mean "host" or "guest". *Louer*, means "to rent" or "to rent out" with no way to differentiate.

FLORENT COURAU
Paris

I thought Johnson's piece on words with opposite meanings was sick.

AARON SCHAD
San Antonio, Texas

Economist/Senior Economist

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Putin at bay

KYIV

Ukraine's military success is reshaping not just the war, but also Russia

RUSSIA, RUSSIA, RUSSIA,” chanted Vladimir Putin on September 30th, as he announced the annexation of four Ukrainian provinces: Donetsk, Luhansk, Zaporizhzhia and Kherson. But within hours his newly expanded country began shrinking. The Ukrainian army smashed through Russia’s left and right flanks, at the two extremes of a vast front stretching from the Black Sea in the south to the Donbas region in the east (see map on next page). “Not since the initial part of Operation Barbarossa in the second world war has the Russian army had such a terrible series of reverses on the battlefield,” says Mick Ryan, a retired Australian general.

The war is by no means over. Russia still occupies some 15% of Ukrainian territory. Its army will soon swell as the forced mobilisation of some 300,000 reservists announced last month gathers pace. But for the first time in seven months of war, time and momentum are on Ukraine’s side.

On October 1st Ukrainian tanks rolled into Lyman, a strategic hub in Donetsk. Later that evening six Ukrainian battalions

pierced enemy lines 200 miles (320km) away, in the northern part of Kherson. By the time Russian soldiers were making appeals for emergency air support via social media, the Ukrainians had advanced at least 12 miles. “The enemy has superiority in everything,” wrote Igor Girkin, who led Russia’s first invasion of Donbas, in 2014, “even using aviation.” By October 6th Russian forces had fallen even farther back towards the city of Kherson.

In Donbas (which comprises the provinces of Donetsk and Luhansk), Ukraine is tantalisingly close to routing its enemy. It is bearing down on weak Russian defensive lines near the towns of Kreminna and Svatove in northern Luhansk. A member of Ukraine’s military intelligence predicts that Russia will soon be forced to retreat from Kreminna to save artillery and other equipment. Svatove is an equally impor-

tant target, as the site of large ammunition stores and a gateway to the rest of Luhansk. Pushing the Russians back to the lines that existed before the start of the current fighting in February would not be difficult after taking the town, the source said.

The battle for Kherson is even more significant. The province forms one end of a “land bridge” linking the Crimean peninsula, which Russia seized from Ukraine in 2014, to Russia. It is also the source of much of Crimea’s water. The city of Kherson is one of Ukraine’s main ports on the Black Sea, and the gateway to the others; the loss of it puts all Ukraine’s maritime trade in jeopardy.

Mr Putin has reportedly insisted that his generals hold Kherson city at all costs. Ukraine has been exploiting this stubbornness by destroying bridges and so pinning Russian troops down in what appear to be indefensible positions with their backs against the Dnieper river. The Russian forces there are now in danger of encirclement with no obvious way to retreat. Surrender may be their only option.

After a long stalemate over the summer, the war has acquired a sudden fluidity. “Ukraine is dictating the operational tempo at the moment,” says a Western official. Ukrainian generals believe they can achieve more victories in the three-to-four weeks before Russia’s newly mobilised soldiers begin to appear in force. “We can get a lot done in that time—and by that I mean liberating Kherson or northern Luhansk,” ➤

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▶ says the military source. “When the mobilised guys join the battle, we will be so prepared it will be like pouring water on red-hot metal. They will simply evaporate.”

But Ukraine’s onslaught may soon slow down. Its army has been on the offensive for over a month, devouring ammunition and exhausting troops. Winter is coming. As the ground grows wetter and muddier, heavy armoured vehicles will be confined to roads. That tends to disadvantage attackers, as Russia found in the bogs north of Kyiv in March. It also impedes armies like Ukraine’s, with many wheeled, rather than tracked, vehicles. Bad weather makes it harder to use drones to spot targets for artillery, too. Combat operations will therefore “freeze” around the beginning of November, says Pekka Toveri, a former chief of Finnish military intelligence.

Yet, even if ground offensives stop, Ukraine will use its American-supplied HIMARS missiles to hammer Russian barracks and depots. Recent videos on social media, the Western official notes, show shivering Russian recruits lighting fires in fields at night in sub-zero temperatures: “That is not going to be a situation where you have high morale over the winter.” Another video shows reservists from the Omsk region asking when they will be paid; local officials reply that they do not have the funds.

Ukrainian troops, in contrast, have been given ample cold-weather gear by NATO countries and domestic donors. They also have more night-vision goggles, allowing them to take advantage of shorter days. The result may be that Russian forces are run ragged by spring.

Mr Putin might nevertheless hope to grind out a victory through sheer mass, exploiting Russia’s three-to-one advantage over Ukraine in fighting-age men. Newly mobilised recruits will be used to relieve forces that have not had a rest for seven months. They could also bring depleted battalions up to strength and, eventually, create new units to go back on the offensive. Christopher Dougherty, a former Pentagon planner now at CNAS, a think-tank, says the war is testing whether a relatively small army using “information-age tech” can defeat a much bigger force with tactics from the “industrial era”.

Some European officials worry that Russia will manage to create lots of basic infantry units that could, at the very least, man defensive positions. But most doubt that Russia can train, equip and supply hundreds of thousands of fresh troops. It has large reserves of Soviet-era equipment, says General Toveri, “but luckily most of it is crap.” Two-thirds of those stocks have been stored in the open, he adds, and the rest cannibalised for parts. The new recruits may prove little more than “human speed bumps”, says General Ryan.

Even if Mr Putin’s reservists cannot turn the tide, can they stave off defeat, thereby turning the war into a contest of political and economic attrition? After losing Kharkiv province in September, Russia attacked Ukrainian dams and power stations. That Russia has fired very few precision missiles in recent months suggests that its stockpiles are “either depleted or at minimal levels”, says Konrad Muzyka, a military analyst. But it could make life even more miserable for ordinary Ukrainians. And the longer the war, the greater the damage to Ukraine’s economy, which is expected to contract by 35% this year.

Wedging strategy

In addition to attempting to batter Ukraine into submission, Russia might also still hope to peel off some of its Western backers. European officials suspect that the attacks on the two Nord Stream pipelines in the Baltic Sea on September 26th were carried out by Russia as a warning that it could strike at other pipelines, compounding Europe’s energy crisis. Mr Putin’s repeated hints at the use of nuclear weapons are also meant to intimidate.

Yet Ukraine’s advances in Luhansk and Kherson have not yet prompted escalation. Nor have there been unusual movements of nuclear forces. “We haven’t seen any changes in their nuclear posture,” noted Jens Stoltenberg, the secretary-general of NATO, shortly after Mr Putin’s speech.

What is more, the main weapon Mr Putin has deployed against Europe so far—a throttling of gas exports—seems to have misfired. Europe’s gas shortage remains serious, but its governments have promised to spend some \$500bn to insulate citizens from price spikes. The continent’s gas

storage is more than 89% filled, which is above average for this time of year. A new terminal for gas imports has already opened in the Netherlands; two more are due to open in Germany later this year.

Western public opinion is even warming towards the war. In late September 74% of Germans told pollsters they favoured maintaining support for Ukraine “despite our rising energy prices”, up from 70% in July. A plurality—and majorities among supporters of each of the parties in the ruling coalition—even supported sending tanks, something which the German government has resisted. Another recent survey shows that the share of Americans concerned that support for Ukraine might lead to a war with Russia has declined from 49% in May to 32% in September. The EU is finalising another round of sanctions on Russia, including an oil-price cap—a step previously resisted by several members.

Critically, Western arms are still flowing to Ukraine. On October 4th America announced its latest consignment, including four more HIMARS launchers, 16 howitzers and GPS-guided artillery rounds that surpass anything in Russia’s arsenal. France and Denmark are in talks to send Ukraine as many as a dozen new CAESAR howitzers.

In fact, the question is not so much NATO’s will to support Ukraine, but its capacity. The current offensives are consuming ammunition at a prodigious rate. In some cases, the barrels of Ukrainian artillery pieces have melted from overuse. A European official warns that supplies will inevitably dwindle after six months or so—just at the point when fresh Russian units may be entering the war.

But whatever the practical constraints, the war has prompted a profound shift in the West’s view of Ukraine that diminishes Mr Putin’s chances of sowing division. In February Ukraine was widely seen as a typically corrupt former Soviet state that would inevitably get thumped by Russia. By June it was officially welcomed as a candidate for membership of the European Union. The spectacular success of Ukraine’s offensive in Kharkiv proved that it could best Russia on the battlefield. The proportion of Germans who think that Ukraine will win the war rose from 26% in August to 42% in September. NATO officers who once questioned whether Ukraine’s soldiers would make good use of the alliance’s weapons now laud their tactics.

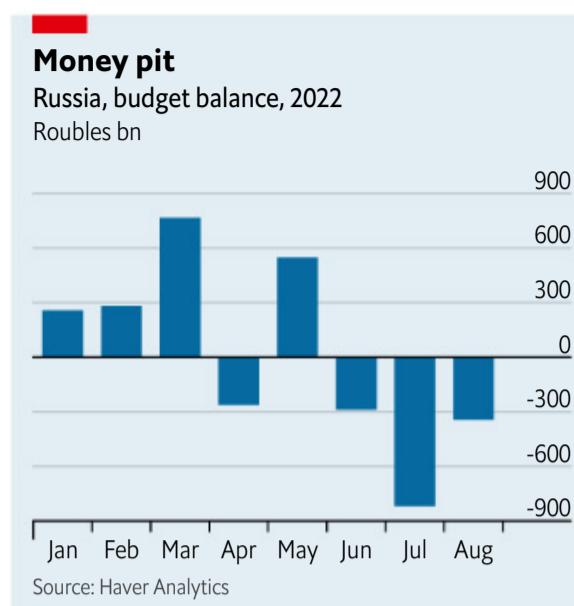
Meanwhile, Russia’s defeats on the battlefield are causing rifts within Mr Putin’s circle. Two close henchmen, Ramzan Kadyrov, the warlord who runs Chechnya, and Yevgeny Prigozhin, who heads a mercenary force called Wagner Group, have launched a synchronised public attack on Sergei Shoigu, the defence minister, Valery Gerasimov, the chief of the general staff, and the officers they command. The gener-



► al who failed to hold Lyman, said Mr Kadyrov on October 1st, "should be sent to the front lines to wash off his shame with blood." Senior members of the Duma, Russia's parliament, have joined the criticism.

There are growing signs of dissent within the broader populace, too. Alla Pugacheva, the most famous pop diva of the Soviet era, took to Instagram to lament "our boys dying for illusory goals". The mobilisation of reservists was dubbed "mobilisation" on social media. (*Mogila* is Russian for "grave".) It prompted widespread protests and arson attacks against military recruitment centres, especially in the poor areas dominated by ethnic minorities that have furnished a disproportionate share of Russia's troops. In Dagestan, a largely Muslim region of some 3m people, women rallied repeatedly against the conscription of more of their sons and brothers.

That Mr Putin, in annexing parts of Ukraine after fake plebiscites, seemed to be endorsing regional separatism and self-determination, is not lost on such places. Volodymyr Zelensky, Ukraine's president, has tried to rally Russia's minorities



against the war. In a video filmed in front of a memorial to Imam Shamil, who fought against the Russian conquest of the Caucasus in the 19th century, he pleads, "Peoples of the Caucasus! All peoples on the territory of Russia! You have no reason to be among these many who still serve the one who wants this war. You do not have to die in Ukraine. Your sons do not have to die in

Ukraine. You have no such obligation. Not to your parents, not to your children, not to your future, not to the future of your land."

On October 4th associates of Alexei Navalny, a jailed opposition leader, announced they were re-activating their network around Russia, which had been banned by the Kremlin as an extremist organisation. They called on supporters to join the anti-war effort by any means possible, from distributing leaflets to torching enlistment offices.

But the anti-mobilisation protests have already died down, thanks in part to harsh policing. In a country where tolerance for any criticism of the government is evaporating, the main form of dissent is foot-dragging. The mobilisation has prompted a mass exodus. More than 200,000 men have fled to Kazakhstan, another 70,000 to Georgia. Some 66,000 have taken refuge in the EU, despite the decision by Latvia and Estonia to shut their borders to Russian draft-dodgers.

This flight, in turn, will exacerbate Russia's economic problems. Only 25% of Russians have passports. Those leaving are relatively educated and wealthy urbanites. Hundreds of thousands more are hiding from the draft inside the country, having left their jobs and their home addresses. These middle managers, bureaucrats and office clerks are mainstays both of the government and private enterprise.

Before the mobilisation, Vladislav Inozemtsev, an economist, was expecting the economy to shrink by about 5% this year; he now expects twice as big a contraction. The government's accounts are looking sickly, too. It has swung from a big monthly surplus at the start of the war to a nagging deficit, as expenditures have risen and revenues have shrunk (see chart).

The cumulative effect of all this is to call into question Mr Putin's popular support. He previously enjoyed the backing not only of militant nationalists, but the bulk of ordinary Russians, on whom the war in Ukraine was having little impact. The mobilisation has both split that coalition and undermined Mr Putin's reputation for competence.

There is no sign of any immediate threat to Mr Putin's rule, although Moscow is rife with rumours of impending martial law and border closures. Fatalistic acceptance is widespread, just as it was during the pandemic, when perhaps 1m Russians perished without any uproar. But a businessman describes a growing sense of his vulnerability by quoting from "The Jungle Book", a classic British children's novel that is apparently a favourite of Mr Putin: "When a leader of the Pack has missed his kill, he is called the Dead Wolf as long as he lives, which is not long." Even if that proves wishful thinking, no one would have said it a few months ago. ■

Ukraine and Starlink Tweet and sour

KYIV
Elon Musk's foray into geopolitics has Ukraine worried

HE WAS A hero, who went out of his way to keep Ukraine functioning as Russian tanks streamed across its borders. Early in the war Elon Musk gave it access to his Starlink satellite-internet service. But the entrepreneur's saintly status in Ukraine took a hit this week, after a clumsy foray into geopolitics. On October 3rd he asked his followers on Twitter whether they approved of a four-point "peace plan" to end the war. The proposals appeared to mirror Kremlin talking points, urging Ukraine to accept Russia's annexation of Crimea, rule out joining NATO and acquiesce to new votes on secession in the parts of the country Russia has occupied. Some bits of Ukraine, he later added, "prefer Russia". The Kremlin called the initiative "positive".

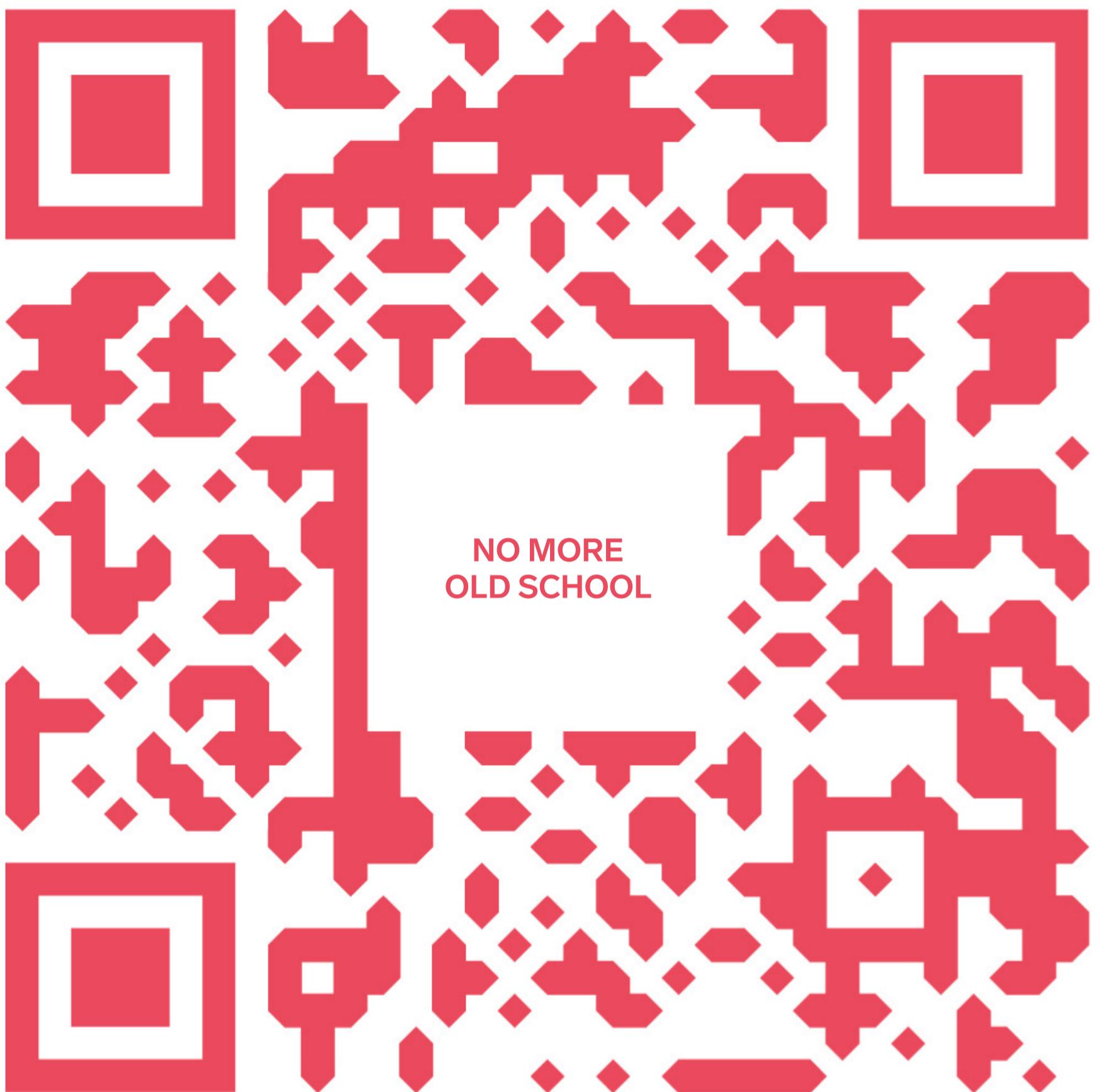
Mr Musk's followers were less keen, voting the idea down 59:41. So was Volodymyr Zelensky, Ukraine's president, who asked his followers whether they preferred the Elon Musk who supports Ukraine to the one who backs Russia. (They did, 79:21.)

Beyond social media, though, Ukrainian officials are taking Mr Musk's initiative seriously. They believe his plan was the product of communication with Russia's president, Vladimir Putin. One worries that Mr Putin might inveigle Mr

Musk into withdrawing access to Starlink. He says that Mr Musk has already rejected a Ukrainian request to make use of Starlink in Crimea. Another official says Ukraine has been having problems with Starlink since September 30th.

Starlink uses satellites in low orbit to beam high-speed internet to portable terminals, of which there are now 20,000 in Ukraine. Most have been paid for by Western governments, but Mr Musk has contributed by waiving the usual monthly fees. Mykhailo Fedorov, a deputy prime minister who appealed to Mr Musk on Twitter two days into the war to get Ukraine back online, says, "It changed the course of the war to Ukraine's advantage."

Starlink has kept Ukraine's trains running. It has helped get liberated territories back online. It has been used to transmit government communications, including, on occasion, Mr Zelensky's nightly broadcasts. But it has been most crucial as a secure form of communication on the battlefield, a soldier says, for everything from mobile command posts to drones. Ignore the tweets, he argues: "Starlink is our oxygen, you can't just turn it off. If we tell Musk [to] piss off and take his Starlinks with him, our army would collapse into chaos."



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The southern border

Don't mind the gap

DALLAS

The Biden administration is quietly completing bits of Donald Trump's wall

ON THE CAMPAIGN trail, Joe Biden pledged he would build "not another foot" of border wall as president. But in the face of record numbers of migrants arriving at America's southern border with Mexico, he has quietly reversed course, agreeing to fill in some glaring gaps that were left when he abruptly halted construction on his first day in office. Staying mum about the wall-work, Mr Biden has not wanted to telegraph the decision and risk alienating backers who associate the border wall with Donald Trump.

That has not stopped Mark Kelly, a Democratic senator running for re-election in Arizona, from crowing about the news. Mr Kelly says he deserves credit for "pushing the Biden administration to close barrier gaps" on Arizona's border with Mexico and boasts of helping secure \$1bn for border security. He has co-sponsored a bipartisan bill in the Senate to help recruit and retain more border-patrol agents and give them a pay rise.

What explains the contrast between Mr

Kelly's outspokenness and Mr Biden's silence about the wall? Mr Kelly is up for re-election in November and understands Democrats' perceived weakness on border security could cost him votes. Blake Masters, the Republican challenger, has made Democrats' mishandling of the border a cornerstone of his campaign. Although Mr Kelly's defensive posture appears to be working, with recent polls showing a healthy lead of around six points over Mr Masters, many Democrats are not so lucky. According to a recent NBC News poll, regis-

tered voters perceive Republicans to be stronger on border security, leading Democrats by 36 points, the widest gap on any issue, including the economy.

November's midterm election will not be the first in which illegal immigration and the border have featured prominently. However, in 2022 they are not just a conduit for partisan emotions. The border is a problem for Democrats because of the sheer volume of people coming and the White House's refusal to lay out a compelling federal response. The administration's strategy is basically "waiting, thinking that things are going to get better," says Henry Cuellar, a Texas Democratic congressman who is seeking re-election and has been publicly critical of Mr Biden's handling of the border.

If anything, the situation is only going to get worse. America's relatively strong economy acts as a pull for people suffering from poverty, violence and inflation. Recent hurricanes will aggravate a looming food crisis in the Caribbean and further stoke migration. From last October until the end of August, border officials encountered migrants around 2.2m times on the southern border, up by a quarter from the year before and more than double the number of encounters in fiscal year 2019.

Since Mr Biden took office, some 1.5m people have probably been released into America, some combination of asylum-seekers, people who couldn't be sent back ➤

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► to their home country, unaccompanied minors who could not be detained at length, and others, estimates Aaron Reitcllin-Melnick of the American Immigration Council, a think-tank. Despite tepid assurances by Kamala Harris, the vice-president, who was tasked with managing migration from Central America, that "the border is secure", few believe it.

The nature of border arrivals and deportations has changed too. Many of those coming are seeking asylum, which they are legally entitled to do. Whereas migrants used to hail mostly from Mexico and Central America, high numbers of Cubans, Venezuelans and Nicaraguans are now coming. In August Venezuelans surpassed Guatemalans and Hondurans as the second-commonest nationality encountered at the border, after Mexicans. Strained diplomatic relations with the despotic governments of Venezuela, Cuba and Nicaragua make it difficult to send people home, so many are being released into America.

Republican candidates for office so often emphasise the border because it merges two priorities for Republican voters, immigration and law and order, says Cal Jillson, a professor at Southern Methodist University in Dallas. According to recent YouGov polls commissioned by *The Economist*, immigration is the second-most important issue to Republican voters, after inflation, with 12% of them ranking it first, versus a mere 2% of Democrats doing so. (Democrats say climate change and the environment is their top priority.) The border has become an embodiment of "the two Americas", says Marc Sumerlin of Even-flow Macro, a research firm. "If you watch MSNBC you're not going to see it, and if you watch Fox News, you're going to see it every day," he says.

The border is taking on the greatest importance in states that abut it. The exception is California, where the Republican candidate for governor, Brian Dahle, does not mention the border on his campaign website, perhaps believing it is too polarising in a heavily Democratic state.

Not so in Texas, Arizona or New Mexico. Greg Abbott, who is running for re-election as governor of Texas against the Democrat Beto O'Rourke, has spent \$4bn in state funds on a border-security programme called "Operation Lone Star" in order to fight "Joe Biden's open-border policies". Kari Lake, a former television anchor who is running for governor in Arizona and has received Mr Trump's endorsement, has promised that as soon as she takes the oath of office, she will declare an "invasion" is under way and deploy the National Guard. Even in Florida, illegal immigration is a prominent theme in Mr DeSantis's re-election bid. He spent \$600,000 in state funds to charter a flight for Venezuelan migrants from San Antonio to Martha's Vineyard,

prompting an investigation by a sheriff in Texas and Democrats' calls for a probe into whether Florida deceived migrants about their destination.

Red states' busing and flying of migrants to blue states, such as Massachusetts and New York, is intended to rile up Republican voters and highlight the burden that housing and feeding new arrivals places on border communities. Despite the legal blowback, it has worked even better than Mr Abbott and Co could have imagined. Every time a Democratic mayor complains about being overwhelmed by small groups of recent migrants arriving by bus, it amplifies media coverage of the border crisis and offers an "indirect contribution" to the campaigns of Republican governors like Mr Abbott, says Mark Jones, a professor at Rice University.

Virtue and signalling

Nearly 2,000 migrants have shown up at Catholic Charities of the Archdiocese of New York with documents sharing the non-profit's address as their final destination, wrongly believing that they can get permanent shelter there. "This is a national problem and we need to deal with this as a country," says Monsignor Kevin Sullivan, the non-profit's executive director.

Unfortunately, there is little hope of that. "I don't see or hear anybody, whether it's the governors or the Biden administration, articulating a real, detailed vision for how to change what's going on at the border," says Theresa Cardinal Brown of the Bipartisan Policy Centre, a think-tank. Ms Brown points to waves of higher migration than normal at the border since 2014, during Democratic and Republican administrations alike. Republicans' obsession with finishing the wall will not resolve today's border crisis, since so many asylum-seekers are turning themselves in to border-patrol officials. Republican promises to "end catch-and-release" policies is also deceptive. Immigration and Customs Enforcement has some 25,000 beds, a fraction of what is needed in order to detain and process the multitudes of those arriving before they can be expelled, if that is really Republicans' plan.

As for Mr Cuellar, he has asked the Biden administration to show photos of people who are being deported, as a way to dissuade migrants from coming. But the administration has refused, because it does not want to upset immigration activists, according to Mr Cuellar. The result is that the White House is upsetting Democrats in competitive races instead. ■

After Hurricane Ian

The Florida model

FORT MYERS, FLORIDA

It is getting harder for the state to subsidise life in a hurricane zone

AFTER THE storm come the loss "adjusters". With clipboard and camera they tot up the damage from leaky ceilings and waterlogged floors. Blake Day, an adjuster who represents homeowners in dealings with insurers throughout south-west Florida, tells his bewildered clients two things. Photograph everything. And file your claim fast to get paid quickly, for some insurers will soon be bankrupt.

Hurricane Ian made landfall near Fort Myers on September 28th. About 110 Floridians were killed by the storm. Ron DeSantis, the governor, seems to have co-ordinated the short-term response well. "The big story is DeSantis demonstrating management skills, rather than political skills, because most people assume he is all about politics," says Susan MacManus, a political analyst and veteran Florida-watcher. The long-term response is another matter.

Insured losses from the storm could reach \$57bn, estimates Verisk, a catastrophe-modelling firm. That would make Ian America's second-costliest hurricane, after

Katrina in 2005. Florida's booming population and real-estate prices mean ever-larger losses when disaster strikes. Yet hurricanes have little effect on the willingness of people to move to Florida. Its population swelled by 15% between 2010 and 2020. House prices rose by more than 30% in the past year, twice the national rate.

The reason can be found in actuarial tables. Florida's property-insurance market was tottering even before Hurricane Ian. (Property insurance covers wind damage; flood protection is administered separately, by the federal government, and has far lower take-up rates.) Annual premiums, at more than \$4,200, are triple the national average. Still that is not enough to cover risk in the state most vulnerable to storms and sea-level rise. Six firms have turned insolvent this year, owing to extreme weather, litigation costs and fraud.

As a result the state is playing a larger role. Citizens Property Insurance, the state-backed insurer of last resort, has doubled its number of policies in two years ►

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All brokered up

► and has the largest market share, about 13%. Its premiums are 30-40% lower than private carriers'. Increases are capped and subject to state approval; earlier this year regulators denied Citizens' request to raise most rates by an amount allowed by law.

Florida has a big interest in making insurance affordable. Real estate generates about a fifth of state GDP. Florida has no income tax, so property tax accounts for a hefty chunk of government revenues. Affordable insurance, says Zac Taylor of TU Delft University, is the "keystone of the political and economic structure of Florida".

The effect of subsidised insurance is that risk—such as coastal development—is not internalised upfront. Instead costs are redistributed after disasters. If Citizens cannot cover losses, it can levy a surcharge on almost all other property- and casualty-insurance policyholders in the state. The so-called "hurricane tax" was most recently collected between 2007 and 2015, after a run of bad storms in 2004-05.

Citizens sits on a \$6.7bn surplus, more than enough to cover its estimated losses of \$3.8bn from Ian. But its risk exposure will only grow as Ian bankrupts more private carriers. "That's going to eat through its capacity really quickly," says Charles Nyce of Florida State University.

The state wants to keep the market viable; a concern is that the growing role of Citizens will undermine private players. In August Demotech, a ratings agency, dinged four insurers. More than a dozen others were warned of a similar fate. If downgraded any further that could spell their end: to get a government-backed mortgage, homeowners must have insurance from an A-rated carrier. So the state is searching for a less discriminating rating agency to keep them in business. ■

Nevada's elections

Viva Las Vegas

LAS VEGAS

The Senate race in Nevada may hinge on outreach to Latino voters

POSTERS LINE the walls of the Democrats' campaign outpost in east Las Vegas, a heavily Hispanic area. Signs for Catherine Cortez Masto, an imperilled Democratic senator, read: "¡Una de las nuestras!" (One of us!). It is a theme echoed by volunteers making calls to Spanish-speaking voters on the Latina senator's behalf. "She can understand our community, and our culture and language," offers Antonio Garcia, a volunteer who became a citizen in 1997 after moving from Mexico.

The erosion of Democratic support among Hispanics in Florida and southern Texas between 2016 and 2020 has heaped attention upon Latino voters, especially in swing states with large Hispanic populations. Nearly 18% of registered voters in Nevada and 19% in Arizona are Latino, compared to 10% nationally. Their electoral power will only grow. A new report from the Latino Donor Collaborative, a research group, suggests that the number of Latinos born in America grew by 31% between 2010 and 2020, compared with 2.8% for non-Latinos. A majority of Latino voters still consistently support Democrats. But analysis of YouGov data by *The Economist* suggests that the average swing voter this year is a young Hispanic man without a college degree who lives in a city.

Democrats in Nevada are quick to distance the Silver State from the shift to the right perceived elsewhere. "Latinos in Nevada are not the same thing as Latinos in Florida," says one long-time Democratic operative. Demographically, that is true. Concerns over creeping socialism may help push Latino voters into the arms of Republicans in Florida, which is home to vibrant Cuban and Venezuelan communities. But John Tuman, a political scientist at the University of Nevada-Las Vegas, argues that such worries don't resonate as much in Nevada, where most Latino voters are of Mexican descent.

An analysis from Catalist, a liberal political-data firm, suggests that in 2020 Donald Trump improved on his 2016 performance among Hispanics in Nevada by eight points, as he did nationally. Voters of Mexican descent, however, abandoned Democrats less often than other Hispanic groups did in 2020. A recent survey of Latino voters from Pew Research Centre found that Mexican-Americans were twice as likely to say they would vote for the Democrat as for the Republican in their local

congressional district.

The Senate and gubernatorial races in Nevada are tight. *The Economist*'s midterms forecasting model suggests that Ms Cortez Masto, the Senate's first (and so far only) Latina member, is neck-and-neck with Adam Laxalt, the state's former attorney-general. Yet election night may deliver the winner wider margins than polls suggest. Nevada is notoriously difficult to poll, as many voters who work in Nevada's large tourism industry are transient, work odd hours and speak only Spanish. "Any poll that you see that doesn't have Spanish interviews in it is not a real poll of Hispanics," says Simon Rosenberg, a veteran Democratic strategist.

Ms Cortez Masto was elected in 2016 as the hand-picked successor of Harry Reid, a former Senate majority leader and the most powerful politician in Nevada's history. After an unsuccessful run for governor in 2018, Mr Laxalt helped run Mr Trump's 2020 campaign in Nevada and advocated for an Arizona-style "audit" of the results. The outcome of Nevada's Senate race may be crucial to winning a majority in the chamber. The result is a campaign trail that serves as a who's who of wannabe presidential candidates. Ron DeSantis, the governor of Florida (and Mr Laxalt's roommate in the Navy), and Nikki Haley, Mr Trump's ambassador to the UN, have spent time around Las Vegas in recent months.

A majority of Latino voters, like a plurality of Americans, say economic issues are most important to them when deciding who to vote for come November. But Latinos are almost evenly split over whether they agree with Democrats or Republicans on economic policy, according to a recent *New York Times/Siena College* poll.

Equis Research, a public-opinion firm focused on Latinos, argues that the highest rates of undecided Hispanic voters are among those who prefer to speak in Spanish. Here, Democrats may have an advantage. Over the course of his 30-year Senate career, Reid built a Democratic machine that focused intensely on mobilising Hispanic voters. He knitted the state party, candidates, powerful unions, and non-profit groups into a network to elect Democrats. Ms Cortez Masto's phone-bank volunteers in east Las Vegas were also campaigning for Steve Sisolak, who is running for a second term as governor, and down-ballot Democrats. Little, if any, English was spoken. Turnout may also increase this year, as 2022 is the first year Nevada will mail a ballot to all registered voters.

Republican victories in Nevada's big races would be even more remarkable for overcoming the advantages built up by the Reid machine, which lost its architect when he died last year. "I think if they win, it will probably be on the concerns around inflation," says Mr Tuman. ■

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The midterms

Other than that, Mrs Lincoln

WASHINGTON, DC

Democrats are losing on the economy, but lead on other issues**MIDTERM MATHS**

EACH YEAR Gallup, a pollster, asks American adults which political party they believe will "do a better job of keeping the country prosperous". For most of the middle of the 20th century, a plurality of respondents told Gallup they believed the Democratic Party would be a better pick on this question. That all changed in the 1970s. A decade of slow growth, high unemployment and soaring inflation left the Democrats' image in tatters. Ronald Reagan's presidential campaign proclaimed it was "morning again in America". The result was a new decade of Republican dominance on Gallup's metric.

Since the 1990s, however, the United States' two major political parties have been locked in a bitter battle for voters' trust to handle the economy. Democrats have tended to win elections when they had a clear lead on this question, such as during the financial crisis and in the 1992 election. At other times they either lost or the elections were close.

This year high inflation, higher borrowing costs and related concerns may lead them again to the electoral wasteland. According to a new Gallup poll released on October 3rd, 51% of adults now trust Republicans more with the economy, compared with 41% for the Democrats. Though Republicans held the advantage on Gallup's question for much of the past decade, the gap between the parties' ratings is now the widest since 1991.

Folk theories of democracy would have you believe that such a gap would doom the Democrats in this November's midterm elections. If the average voter trusts Republicans to make them more prosperous, surely they would not deliver Congress back to the hands of the Democrats? After all, what voter casts a ballot against their own personal prosperity?

The answer, according to a survey carried out for *The Economist*'s by YouGov, an online polling firm, is voters who prioritise other areas of domestic policy. Each week, YouGov asks 1,500 Americans to pluck from a list of a dozen or more problems the most important issue for them personally. Over a third today say that the state of the economy or inflation is their

top concern, followed by roughly 10% each who say they are most preoccupied with health care, climate change and abortion. Of even less import to the average American are civil rights (7%), national security (6%), crime, immigration and government spending (5% each). Fewer than five out of every 100 Americans name either education, gun control or another issue as their top concern.

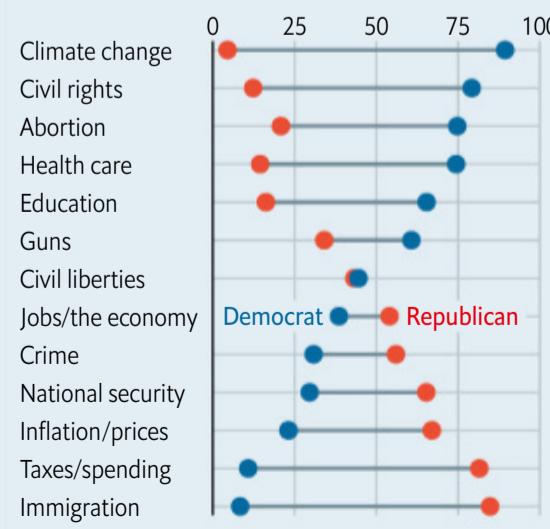
Our polling suggests that the prominence of economic issues has hurt the Democrats. Among YouGov's respondents who said the economy or inflation was their top concern and also predicted they were "definitely" or "probably" going to vote in November, 63% said they would vote for Republican candidates for the House of Representatives. Just 28% said they would vote for Democrats. Yet Democrats lead among those who prioritise any other issue by 18 points, attracting 55% of their votes to Republican's 37%.

The salience of abortion has equally been a boon to the left. Whereas just 4% of adults last October said the issue was their top problem, nearly 9% do now. That group is disproportionately Democratic-leaning; among likely voters, 75% of them say they will vote for Democrats versus just 21% of Republicans. That makes for a much wider gap than the advantage Republicans enjoy on the economy.

We have sliced YouGov's data to illustrate how issue priority relates to voting intention. The numbers suggest that if just 20% of likely voters prioritised the economy above all other issues (rather than the 31% who say they do), Democrats would be ahead by seven percentage points. Much of the outcome of November's mid-terms may thus rely on whether the Democrats can make gains among those voters who care about the economy, or if the state of the economy changes by election day. ■

X-rated

United States, voting intention* by respondent's most important issue, 2022†, %
For House of Representatives candidates



Source: YouGov/The Economist

Wisconsin's politics

Curdling it up

RACINE AND MADISON

Why the Badger State has such odd politics

ON A STRIP of well-manicured lawn across from a Walmart supermarket on the edge of Racine, a modest city in the south-eastern corner of Wisconsin, a picture of old-school politics is playing out. A couple of dozen workers, dressed almost to a man in hoodies, jeans and baseball caps, hold up picket signs from the United Auto Workers (UAW) and call out to drivers who toot their horns in support. The group are part of several hundred workers from the CNH Industrial tractor factory just down the road, who have been on strike since May, demanding higher wages, more holiday time, and better health insurance.

Through the crowd walks Mandela Barnes, Wisconsin's 35-year-old lieutenant governor and the Democratic candidate for Senate. In a short stump speech noting his father's long membership of the UAW, he denounces the firm (whose biggest shareholder is Exor, which also owns 43% of *The Economist*). "Nobody builds a successful company without a strong union workforce," he says. So far, however, the strike has not been especially successful. "They think they've got us over a barrel, and they really don't," says Michael Tenuta, who has worked at the firm for the past 11 years. The problem, ironically, is that factories nearby have been raising wages sharply. And so even as on paper, the workers' position gets stronger, the union itself is getting weaker as its membership drifts away to better-paying jobs elsewhere.

That decline of union power is one of the reasons why Wisconsin has drifted away from Democrats in recent years. Twenty years ago, the state had significantly higher union membership than most of America; now it has significantly lower. Having been won comfortably by Barack Obama in 2008 and 2012, in 2016 it narrowly voted for Donald Trump, before swinging back marginally to Joe Biden in 2020.

And yet, even as the Democratic-leaning blue collar workforce shrinks, the Democratic vote is growing elsewhere. The following day, Mr Barnes spoke to a rather different crowd, mostly composed of smartly-dressed women, in a diner in Madison, the state capital. There, instead of stressing his father's union membership, he instead talked about his mother. Before he was born, she had to terminate a complicated pregnancy. "I probably wouldn't be here if my mother didn't have the right to make choices about her health" ▶

▶ care," he said, to cheers.

It is thanks to that growing vote that Mr Barnes, a black progressive with a long history of left-wing stances, still has a chance of unseating Ron Johnson, the Republican incumbent, in November. It also makes Wisconsin a rather unusual sort of state, that nonetheless illustrates well the transitioning Democratic voter base.

On the one hand, it retains a large blue-collar workforce—19% of the state's GDP comes from manufacturing—who have been drifting more towards Republicans in recent years, making the state look more like Indiana or Ohio, which are now both solidly Republican. On the other hand, it also has a vast and growing progressive vote, particularly around Madison, the home of the largest University of Wisconsin campus. About 7% of the state's adult population consists of students, who are well organised, and who this year especially, have been fired up by the Supreme Court's decision to undo abortion rights (it helps that Wisconsin now has, by virtue of a law passed in 1849, one of the strictest bans on abortion in the country.)

This helps to explain why the Badger State is so weird. Essentially, when Democrats can motivate their electorate (which also includes the large black population of Milwaukee, and a surprising rural redoubt in the north-west) they can win. The state's junior senator, Tammy Baldwin, is a lesbian progressive who wants America to introduce universal health care. But when they fail, Republicans, with their more unified base, can also get in their own radicals. Mr Johnson thinks global warming is fake, covid-19 vaccines are dangerous, and that the Trumpist riot on January 6th 2021 was no big deal. Only six other states have senators from both parties, and none where the two differ as starkly. Mr Johnson has campaigned almost exclusively on crime, painting Mr Barnes as a black radical who wants to defund the police (Mr Barnes denies that, but he has in the past tweeted vociferously attacking cops).

Overall, polls suggest Mr Johnson is still the favourite. Lower turnout, a feature of off-year elections, favours Republicans. But not least thanks to that messy Democratic electorate, Wisconsin is a tricky place to survey. An unexpectedly large turnout could swing it the other way.

Indeed, in some ways the state has always been odd. In 1962, the state elected Gaylord Nelson, an early environmentalist and opponent of the Vietnam war. Two years later, in the presidential primaries, a large share of the very same electorate plumped for George Wallace, Alabama's segregationist governor. Whatever Wisconsinites decide to do in November, it will be an indicator of both the opportunities the Democrats have and the challenges they face making the most of them. ■

Wildlife

Winter is coming

LOS ANGELES

Alaska's Fat Bear Week proves conservation can be joyful

FOR ONE rabid corner of the internet, October is Octobear. On October 5th, Katmai National Park & Preserve in southern Alaska kicked off Fat Bear Week, when the park's brown bears are pitted against each other in a bracket challenge much like college basketball's March Madness tournament. Fans use before and after photos to vote for the bear they think has gained the most weight over summer to prepare for hibernation. But what began as a niche contest for conservationists has become a global campaign where superfans stump for their favourite chunkster to be crowned the fattest of them all.

Fat Bear Week began in 2014 as Fat Bear Tuesday. Mike Fitz, a former park ranger at Katmai, noticed that live webcams showing the bears generated a lot of online comments. He and the other rangers let people vote for their favourite fat bear on Facebook. The one-day event attracted just 1,700 votes in 2014. Last year's week-long contest elicited nearly 800,000. Like its basketball progenitor, fans join office bracket pools and gather to watch the live bear cams set up around the park. Some go further. Jean Gross is hosting a bear-themed potluck where she lives in Northern Michigan. Guests must bring foods that appeal to both bears and humans, such as salmon patties and honey butter. This year Ms Gross says she is rooting for Holly, an older

female, because "she is a nice little fat girl and so am I".

The contest serves two purposes besides gushing over the rotund ursids. America's national parks are often in remote, undeveloped areas. They can be difficult and costly to travel to. Fat Bear Week brings Alaska's pristine wilderness to fans' computer screens. "The webcams help to democratise the experience," says Mr Fitz, now a naturalist for explore.org, which operates the bear cams. "It's not limited to the fortunate few who can go to the river any more."

Second, Fat Bear Week heaps attention upon the bears, and the ecosystems they inhabit. The 2,200 bears of Katmai are so husky because they feed from one of the healthiest salmon runs in the world, says Sara Wolman, a former park ranger. Salmon in the Pacific Northwest have suffered due to overfishing, dam construction and warming rivers due to climate change. Brooks River, where Katmai's bears like to fish, has so far dodged these threats.

Creators and fans of Fat Bear Week argue the contest has gone viral because it is a conservation success story that for one week helps dispel feelings of doom about habitat loss and climate change. "Maybe things aren't super great all the time in the world," says Felicia Jimenez, a current Katmai ranger, "but there's some really fat bears in Alaska." ■



Old mother nature's recipes

Lexington | What Donald Trump understands

He has a grim view of human nature, and he exploited it shrewdly—to a point



DONALD TRUMP has always understood how the world works—or, at least, how it can be made to work—better than his opponents. Maybe because he has such qualities himself in abundance, his appreciation for human greed, cowardice, selfishness and other weaknesses has given him a granite confidence in human corruptibility. Across the decades, and throughout his term as president, that faith has been vindicated more often than it has been confounded.

"History isn't kind to the man who holds Mussolini's jacket," Senator Ted Cruz of Texas told an associate in 2016, explaining why he was not endorsing Mr Trump, according to the new book "Confidence Man", by Maggie Haberman. Yet Mr Cruz eventually bent the knee—even though Mr Trump had attacked his wife, Heidi, so cruelly that even a Republican not named Cruz also said he could not back him. That Republican, Rudy Giuliani, would go on to make a bonfire of his reputation in service to Mr Trump.

How could a man who lies so transparently and exhibits such incompetence be so successful? Respectable people have been asking versions of that question since Mr Trump was in real estate, and as he moved on to entertainment and politics, or to all three at once. The answer says as much about them, or about all of us, as it does about him.

Ms Haberman, of the *New York Times* and CNN, stands out among journalists who have followed Mr Trump, and not only because she has covered him since he was a developer in New York and she was at the *New York Post*, a tabloid. Ms Haberman has always taken Mr Trump seriously, as someone, she writes here, who was "shrewd and smarter than his critics gave him credit for, possessed of a survival instinct that was likely unmatched in American political history".

Ms Haberman makes a particular contribution with this book by describing how the annealing interplay of politics and commerce in the New York of the 1970s and 1980s equipped Mr Trump with the low expectations and cynical convictions that would carry him so far: that racial politics is a zero-sum contest among tribes; that allies as well as enemies must be dominated; that everything in life can be treated as a transaction; that rapidly topping one lie or controversy with the next will tie the media in

knots; that celebrity confers power; that not only politicians but even prosecutors are malleable.

Yet these same convictions would also carry Mr Trump only so far. They doomed his presidency. After Mr Trump was elected, James Comey, the FBI director, warned him that a dossier was circulating that alleged Mr Trump had compromised himself in Russia. New York had taught Mr Trump that damaging information was a means of leverage, and so he assumed Mr Comey was threatening him. "Comey was blind to the depths of Trump's paranoia and to his long history of gamesmanship with government officials," Ms Haberman writes. Mr Trump would later fire Mr Comey, with disastrous repercussions for himself. The first exchange "set the terms" for Mr Trump's subsequent interactions with intelligence and law-enforcement officials, according to Ms Haberman.

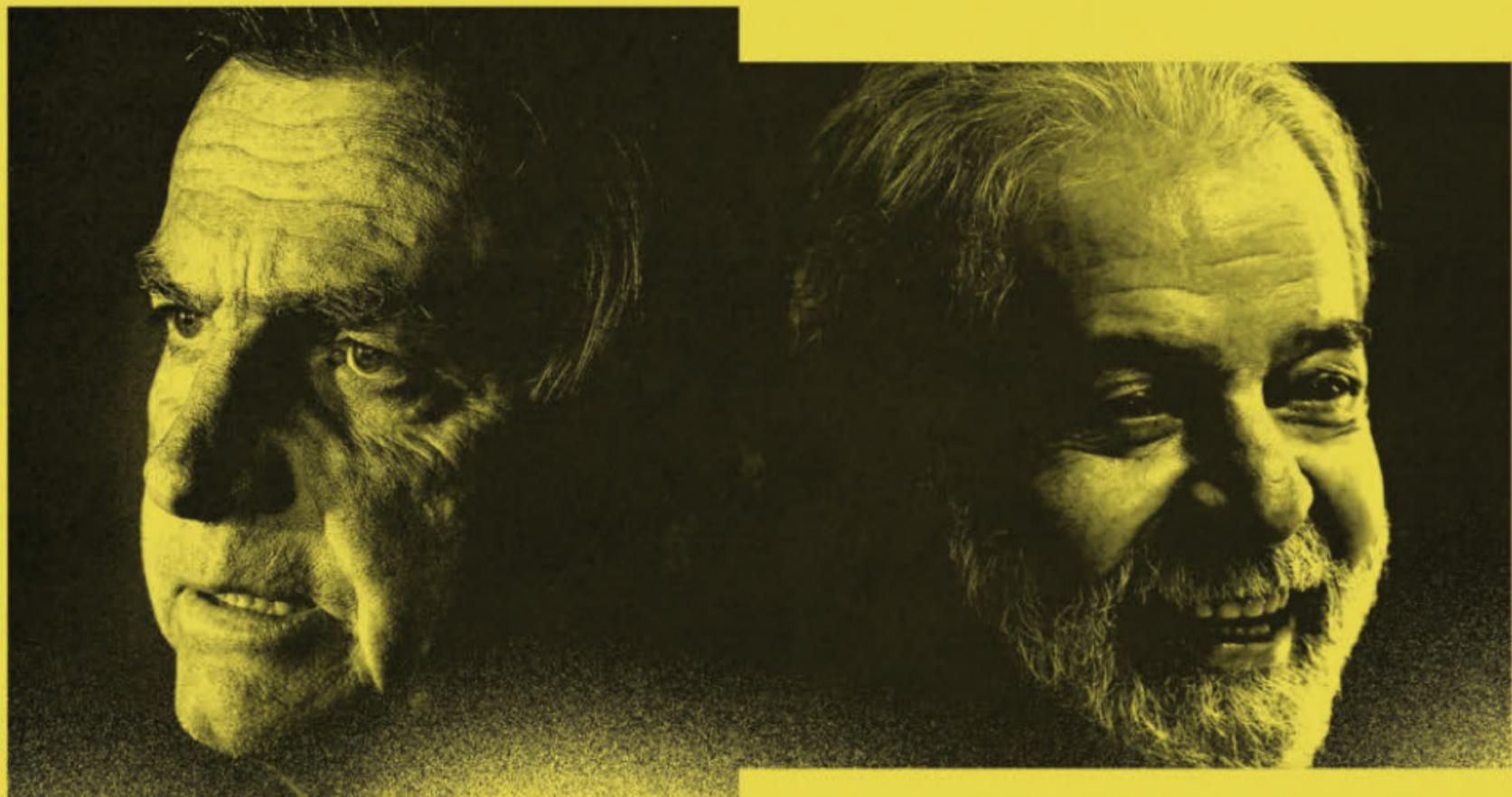
Mr Trump bullied and humiliated senators and generals. "You're losers and you're babies," he told America's military leaders, when they brought him to the Pentagon in an attempt to persuade him of the value of the post-war order. He could reward servile lawmakers by tossing branded chocolate bars at them, then have the satisfaction of watching as they scrambled for one. But he found that foreign affairs and even domestic politics could not be managed only through bilateral transactions and tactical improvisation, and that his money could not buy everything. He was astonished when a New York Democrat he had donated to years earlier nevertheless backed his impeachment.

Because Ms Haberman sees Mr Trump in full, she acknowledges "the Good Trump"—the one who would repeatedly check on a sick friend and be "funny and fun to be around, solicitous and engaged". People accustomed to his all-caps Twitter persona or to press portrayals were often surprised on meeting him in the White House. He could be calm and charming. But that side of Mr Trump was less in evidence as his term wore on. During the 2020 campaign, Bill Barr, then the attorney general, pleaded with Mr Trump to turn on his charm, "to persuade people that you're not an asshole". But Mr Trump insisted his core voters "want a fighter".

Defining deviancy down

That mania about his political base also set limits on Mr Trump. In 2018, after a 19-year-old man killed 17 people at a Florida high school, he met with parents and students from the school and promised action on gun control. "We're going to get it done," he said, and he could have. But he backed away after talking with officials from the National Rifle Association. Ms Haberman says her subject does not have a high opinion of his core supporters. ("They're fucking crazy," he told his own aides.) But as an upstart from Queens he became persuaded in his New York days that the establishment would never accept him, and he would not take the risk of alienating his base by shifting toward the political centre.

Inevitably, "Confidence Man" must walk some well-trod paths, as when Mr Trump magnified his notoriety by questioning whether Barack Obama was born in America. The heart sinks to be reminded of all the Trump-era scandals, if only because one suspects we have lost the capacity for shock when, say, a candidate refuses to release tax returns. Ms Haberman rightly laments Mr Trump's influence, writing that he "appeared to be ushering in a new era of behaviour, real and expected, from politicians". Her devastating portrait of Mr Trump's failure should give his imitators pause. He did not escape his own history, but other Americans certainly still can, given a leader with the wisdom to build on their strengths rather than prey on their weaknesses. ■

**Brazil's presidential election**

Bolsonarismo battles on

SÃO PAULO

Lula and Jair Bolsonaro head for a nerve-jangling run-off

FOR LUIZ INÁCIO LULA DA SILVA, Brazil's leftist former president, it was a disappointing result. His supporters had dared to hope that Lula, as he is known, might win an outright majority in a presidential election on October 2nd. Instead the race was far tighter than most opinion polls had predicted. Lula attracted 48% of the vote, while Jair Bolsonaro, the hard-right populist incumbent, won 43%. The pair will face each other in a run-off on October 30th.

The polarised campaign turned largely on which candidate Brazilians disliked least. Many blame Mr Bolsonaro for mishandling the pandemic, for his crude attacks on opponents and for a generally lacklustre economic record during his term. Many others blame Lula and his Workers' Party (PT) for a previous economic slump, from 2014 to 2016, and for a massive corruption scandal known as *Lava Jato* (Car Wash). Lula spent 18 months in jail for receiving bribes, though his convictions were later overturned. At one point, 38% of Brazilians said they didn't want either Mr Bolsonaro or Lula as president. But no other candidate mustered much support.

Mr Bolsonaro will go into the run-off feeling he has momentum. Many of his closest allies were elected to Congress. Contrary to what polls predicted, he got more votes than Lula in São Paulo, the most populous state. He clearly benefited from a hidden vote: in-person polls may have oversampled poor people, who tend to support Lula, and undersampled Bolsonaro fans, who may have declined to participate because they mistrust pollsters.

An improving economy may have helped the president, too. Inflation, which peaked at 12%, is now 8.7%. The government spent billions this year on cash transfers and subsidies to poorer Brazilians, though more of them still voted for Lula. In a speech on election night, Mr Bolsonaro attributed their "desire for change" to high

food prices and said he would convince them that "certain changes are for the worse." The day after the vote, the government announced that October's cash transfers would be doled out a week early, well ahead of the run-off.

Mr Bolsonaro will also seek to benefit from new alliances in the states, such as Minas Gerais, the second-most-populous state and a major battleground. Some 48% of its voters picked Lula, compared with 44% who chose Mr Bolsonaro. But the right-wing governor, Romeu Zema, won re-election with 56% of the vote. His post-election declaration of support for Mr Bolsonaro may prompt some *mineiros* to switch their allegiance.

Lula remains the favourite to win the run-off, however. He beat Mr Bolsonaro by around 6m votes. Many poorer voters retain fond memories of his time in office, between 2003 and 2010, when his government channelled the fruits of a commodity boom into social programmes. On the morning of the election in São Bernardo do Campo, an industrial city near São Paulo where Lula got his start as a union leader, Lourdes Nunes, a janitor, said that a victory for the former president would allow her "to dream again". Her parents joined the middle class working in the Volkswagen plant when Lula ran the metalworkers' union. Her wages rose under Lula, too.

In a speech to his glum campaign staff after the election, Lula tried to lift spirits. "Some of you are disappointed that I have 30 more days of campaigning," he said. ➤

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— Bello is away

► “But I love campaigning.” His best hope for attracting the 15m voters who annulled their vote or plumped for one of the other candidates is to demonstrate his willingness to govern as a moderate. On October 5th he secured an endorsement from Simone Tebet, a centrist who won 4.2% of the vote. He may offer her a position in his government. He also received a lukewarm endorsement from Ciro Gomes, the fourth-placed candidate, who got 3%.

The run-off will test Brazil’s institutions, especially if Lula ends up winning by a narrow margin and Mr Bolsonaro refuses to accept the result. For more than a year the president has been sowing doubt about Brazil’s electronic voting system, insinuating that anything other than his own victory is a sign of “fraud”. On September 28th his Liberal Party released a document, misleadingly called an “audit”, that falsely claimed that voting machines were at risk of being hacked by “a few technicians [with] absolute power to manipulate results of the election without leaving a trace”. Rather than accepting that his strong result showed such criticisms to be misplaced, some of his fans are claiming that he really won.

In São Bernardo do Campo on voting day Cleiton Moseli was so certain that Mr Bolsonaro would win in the first round that he made a bet with a Lula supporter: three cases of beer. “Lula has no chance,” he said. He felt that, should Lula win, it would be proof of “manipulation” and he would protest. His friend, José Tadeu, said he would ask for the army to intervene to prevent Lula from taking office. Both echoed the president’s insinuations that Lula would “close churches” and “implement communism” if elected. Pablo Ortellado of the University of São Paulo, who monitors pro-Bolsonaro groups, thinks that if Lula wins there could be “tumult”.

Mr Bolsonaro will continue to paint Lula as a corrupt, immoral communist, says Cláudio Couto of the Fundação Getúlio Vargas, a university. This rhetoric will intensify a campaign that has been polarised and at times violent. “Everything is tense,” says Esther Solano of the Federal University of São Paulo. “All that is needed is a spark.” Three Lula supporters and one of Mr Bolsonaro’s have been killed by each other’s fans.

In a recent poll commissioned by the Brazilian Forum on Public Security, nearly 70% of Brazilians said they feared being physically attacked because of their political opinions. The day before the election, a group of young people at Lula’s final campaign march in São Paulo confessed that, for the first time, they planned not to wear PT stickers when voting. “What if there’s a bolsonarista? What if he has a gun?” wondered Giovana Moraes, a 23-year-old.

But voting on October 2nd went

smoothly, with no reports of election-related violence or any serious problems involving voting machines (around 3,000 malfunctioned and had to be replaced, 0.6% of the total, which is normal in an election of this size). Many Brazilians will pray that the same is true on October 30th.

In the meantime, it is already clear that the success of right-wing parties in Congress will have long-term implications. Mr Bolsonaro’s party increased its seats and will be the largest party in both the senate and the lower house, where a bloc of conservative parties aligned with the president is just short of a majority. “We’re not talking about a Congress that’s more clientelistic,” says Guilherme Casarões, also of Fundação Getúlio Vargas. “We’re talking

about a Congress that is more *bolsonarista*.”

If Lula wins, he will struggle to govern. Passing constitutional reforms, which require a two-third majority, will be particularly difficult. Lula will need the backing of opportunistic, centre-right parties who will demand pork in exchange. Negotiations will happen on a case-by-case basis “and will not be cheap”, says Bruno Carazza of Fundação Dom Cabral, a business school. If Mr Bolsonaro wins re-election, he will have a far easier time pushing through laws to loosen environmental regulations and gun restrictions. He may attempt to increase the number of justices on the Supreme Court. Regardless of who wins, *bolsonarismo* looks like a force that is in Brazil to stay. ■

Quebec

Isolated but not independent

MONTREAL

François Legault has crushed the Canadian province’s two-party system

IS QUEBEC IN or out? With a few brief interludes, the question has dominated the politics of the French-speaking province of Canada for more than half a century. Separatist governments were repeatedly elected, only for the population to shy away from independence when asked to vote in a referendum. With the crushing re-election of François Legault as its premier on October 3rd, the answer seems clear. Quebecers want a fiercely nationalist provincial government within a united Canada.

Mr Legault’s Coalition Avenir Québec (CAQ) tightened its hold on the Quebec legislature, winning 90 of its 125 seats, up from 74 when the party first won power

in 2018. The two parties which have dominated the province’s politics since the 1970s were battered. The federalist Liberal Party received just 14.4% of the vote, the lowest in its 155-year history. But because its votes were concentrated in relatively few ridings (electoral districts) it remained the official opposition with 21 seats. Meanwhile, the separatist Parti Québécois won slightly more votes (14.6%) but only three seats.

Mr Legault, an accountant who made millions founding a budget airline, was a Parti Québécois cabinet minister before losing faith in the separatist cause. He founded the CAQ in 2011. The party appeals to Quebecers’ comfort zone by not requiring them to make a difficult decision, says Jean-François Lisée, a Parti Québécois political strategist who recruited Mr Legault. “It says to them, ‘You don’t have to love Canada but you don’t have to leave it either.’”

Mr Legault grew up in one of Montreal’s anglophone enclaves, yet winning support in the city has not been a priority for him. His government adopted legislation limiting access to services and education in English and other non-French languages, while reducing the number of immigrants allowed into the province. During the latest campaign, he derided Montrealers for “looking down” on people from elsewhere in Quebec.

So while it consolidated support elsewhere, the CAQ remains shut out of the metropolis, where it holds just two of 26 seats. “He’s talking basically to Joe Pickup,” says David Heurtel, a former Liberal cabinet minister. “Montreal is isolated; it truly is an island.”



An adroit kind of politics



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Cuba

Voices of the powerless

HAVANA

Cubans rage, rage against the dying of the light

ON SEPTEMBER 27TH Hurricane Ian took out Cuba's electricity grid. The blackout meant that the island's food, which is scarce anyhow, rotted in the heat. But the cover of darkness also provided the opportunity for Cubans to protest. In several neighbourhoods of Havana, the capital, people banged pots and pans and called for light and *libertad*, or freedom.

Even before the hurricane swept in, Cubans had a lot to protest about. The island is undergoing the worst economic crisis since the 1990s, after the fall of the Soviet Union. The current problems started with Venezuela's economic collapse in 2014, which reduced the amount of cash and cheap oil it sent to the island. Donald Trump's tightening of the American embargo limited how much money Cuban Americans could send to their relatives, and how often. Covid-19 shut off the island further from tourist dollars, and few have returned. "The economy is in a very deep hole," says Ricardo Torres, an economist at the American University in Washington.

The government has not helped matters. At the start of 2021 it unified the currency. This involved devaluing the Cuban peso from parity with the dollar to its black market rate of 24 pesos to one greenback. One unfortunate consequence is that last year inflation soared to 152%, according to the Economist Intelligence Unit, our sister organisation. The exchange rate on the street is 200 to the dollar and rising.

Salaries for state workers have increased five-fold. But that barely buys a meal. Marín, a primary school teacher, earns 4,200 pesos a month. At the official exchange rate, that is \$175. In reality it is \$21. He drives a taxi to earn more. Similarly, from their kitchen in an outhouse, Sandra and Yoanka Borges describe bartering with neighbours for milk, sugar and eggs to make the Cuban sweets for their business, "Dulces Doña Manuela". Over the past year the cost of sugar has increased ten-fold.

Quietly and over the past decade, the government has lifted some of its draconian restrictions on private enterprise. Last year private businesses with up to 100 staff became legal and foreigners were allowed to invest in them. Previously only freelancers, or *cuentapropistas*, were allowed to run a small private business. Cubans can now import goods to sell rather just than for their own use. The list of items that may be brought into the country

by plane has expanded to include cheese and condensed milk.

Cubans have seized these opportunities. More than 5,000 small businesses were founded in the year after legalisation. Today private enterprises outnumber state ones. But they are far smaller, and a thicket of regulations keeps them that way. The economy remains dominated by big, unproductive state firms that have privileged access to credit and dollars. All this keeps Cuba far poorer than it should be.

That leaves the government in a quandary. "They don't want to open enough that the private sector has real power," says Marta Deus, the founder of a food-delivery business. But the state cannot cope. Its traditional sources of income are hard to revive, reckons Mr Torres. Exports of tobacco, sugar and fish are down. (The hurricane blasted the tobacco crop.) The government has no money to buy seeds, fertiliser or animal feed. And because it has a monopoly on importing and distributing these things, no one else can buy them, either. In May President Joe Biden lifted caps on remittances to Cuba put in place by Mr Trump. But Cubans abroad are loth to send money home, at least via official channels, as these are run by the army and fleece their customers by swapping their dollars for pesos at the derisory official rate.

Meanwhile, the power cut caused by the hurricane is not a one-off. The government

has failed to overhaul its ageing electricity grid. Cuba currently relies on five Turkish power generators on ships floating off the coast. The island's total supply is only two-thirds of the 3,000 megawatts of demand. Blackouts often hit Havana as well as the countryside. When the power goes out, residents exclaim *Vamos solidario!* (let's go in solidarity!), a dig at the government's explanation that the cuts in the capital are to show empathy for rural folks.

The Communist Party's economic model is not the only thing that seems out of date. Few Cubans believe in socialism, the official ideology. Raúl Castro, Fidel's brother, who took over in 2008, has been less charismatic but more reform-minded than his brother. Miguel Díaz-Canel, the current president and first secretary of the Communist Party, lacks both the Castro name and charisma. Even if he wanted to reform, he faces huge barriers from the party and the civil service, says Carlos Alzugaray, a Cuban former diplomat.

Vamos!

In July 2021 thousands of Cubans took to the streets to protest about shortages, lockdowns and one-party rule. Hundreds were arrested; many were sentenced to 30 years in jail. Small protests continue across the island, including in rural areas.

Others are voting with their oars. In August residents of El Cepem, a coastal village, protested when police tried to stop them from emigrating on makeshift rafts. Since October 2021 almost 195,000 Cubans have been caught trying to cross the border between Mexico and the United States, around four times the number in the previous two years combined, and far more than in other exodes in 1980 and 1994. Marín, the teacher, will soon head to Spain. "There is no future here," he says. ■



Do not go gentle into that good night



South-East Asia

Forced to defraud

SINGAPORE

Gangs are kidnapping thousands of Asians and making them run cyber-scams

THINGS WERE looking up for Bilce Tan. The 41-year-old Malaysian had lost his job at the height of the pandemic and had spent months looking for work. Then in May, a fantastic opportunity came his way. After multiple interviews, a Malaysian company offered him a job as a business-development lead at their office in Sihanoukville, a resort town in Cambodia. The company would pay him 12,000 ringgit (\$2,588) a month—far more than he could make in Malaysia. The benefits included free room and board at an apartment block that boasted a gym. Mr Tan accepted.

It was not long after he arrived in Sihanoukville that Mr Tan began to feel uneasy. At the resort where his employers had their office, armed guards patrolled the boundaries. The walls were topped with barbed wire. During training, his instructors taught him how to defraud people online. When he protested, his bosses shrugged. There was no way out of the compound, they told him. He was trapped.

Mr Tan's story is a common one. Over the past few years, tens of thousands of

Asians have been lured to casinos and resorts in Cambodia, Laos and Myanmar, only to find that their “employers” are in fact criminals who force their “new hires” to work in illegal online-gambling or scamming outfits.

The cons are sophisticated. Mr Tan was furnished with fake social-media accounts, ten mobile phones, a list of targets and information about their assets, relationships and education, as well as scripts tailored to different types of prey. His handlers taught him how to win over vulnerable people like pensioners and single parents by chatting with them every day.

His trainers also supplied him with photos and videos to support the back sto-

ries of his many personas. Once the mark's trust had been gained, the real scam began. Rather than asking for money directly, as in a traditional sting, he urged the victim to deposit cryptocurrencies in an investment platform manipulated by the criminals. The sums involved grew bigger and bigger. Often the mark would, at first, be able to make small withdrawals. Satisfied that the platform was legitimate, the target would deposit ever more. Then, one day, the invented persona would disappear, leaving behind a baffled and broke victim. (Mr Tan claims he never managed to con anyone.)

The 1,200 victims of similar scams known to the Global Anti-Scam Organisation, a support group, have collectively lost \$250m. Twice that amount was lost by those who contacted CipherBlade, an investigation firm, last year. Total losses for 2021 may have been in the tens of billions, since the “vast majority” of victims do not report the crime, reckons CipherBlade. Precise estimates are impossible, but the International Justice Mission, an NGO, guesses that syndicates in Cambodia take in some \$12bn a year from online fraud.

The schemes are organised by ethnic-Chinese gangs, which sometimes collaborate with their local counterparts, says Jeremy Douglas of the United Nations Office on Drugs and Crime. At first the criminals invested in casinos—ideal venues for money-laundering. When the Chinese authorities cracked down on illicit domestic gambling a decade ago, the syndicates ↗

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► moved their operations south, finding a hospitable environment in the lawless eastern bits of Myanmar and the scores of special economic zones across Indochina (see map), where local authorities seem to believe that they lack jurisdiction.

With the closure of borders at the onset of the pandemic, the casinos' patrons, most of whom were Chinese, vanished. So the syndicates went online and cast a wider net, targeting the Chinese diaspora and anyone else with money, wherever they lived. They quickly turned their sights on Americans, Australians, Europeans and the middle classes of South-East Asia, too. But to hook them, they would need digitally savvy workers who could speak English or South-East Asian languages.

The syndicates procured their workforce by entrapping people like Mr Tan. Though some work willingly, many are held against their will. According to the Cambodian government, the syndicates employ between 80,000 and 100,000 foreigners—probably a conservative estimate, says Jacob Sims of IJM. Most are deceived into travelling to Cambodia.

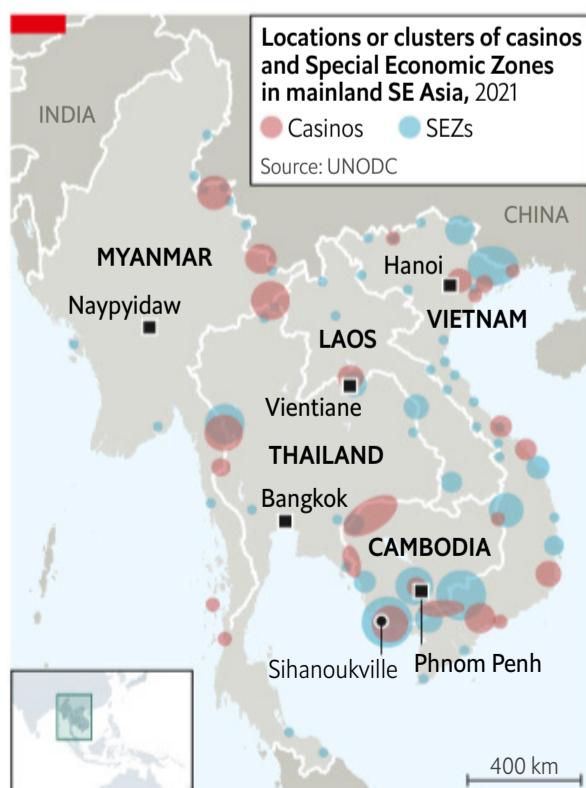
The first reports of human trafficking emerged in local media in early 2021. IJM conducted its first rescue in April of that year. Since then, foreign embassies in Cambodia have been working frantically to extract their citizens. Some are released when their families pay thousands of dollars in ransom. Others manage to escape. A few throw themselves off balconies. The governments of at least eight Asian countries have warned their citizens about too-good-to-be-true jobs in Cambodia.

At first the Cambodian government stuck its head in the sand. But with pressure from China and other countries mounting, Hun Sen, the prime minister, last month announced a crackdown on "illegal gambling", an umbrella term for

criminality associated with casinos. Since then the authorities in Sihanoukville and Phnom Penh, the capital, have conducted raids on the biggest compounds, arresting hundreds of people. But even if Cambodia does manage to boot out the cyber-scammers, they will simply relocate to more-welcoming spots in Laos or Myanmar.

Free and safely back in Malaysia, Mr Tan is one of the lucky ones. Yet he struggles to see it that way. Before he escaped,

his captors took his bank cards and phone. They then locked him out of his bank accounts, preventing him from accessing his life savings. Before he had a chance to explain to his wife that he had been kidnapped, she blocked his number. His former captors began posting her personal information online. She believes Mr Tan was responsible and now wants a divorce. Mr Tan escaped. But, like victims the world over, he too has paid a steep price. ■



Covid-19's aftermath Cover story

TOKYO

Why get a face lift when you can get a face mask?

ZAWACHIN, A JAPANESE celebrity, has long been known for her stylish face masks. When she started her career a decade ago, wearing masks helped draw attention to her lavishly made-up eyes. With time, masks became part of her brand, and she carved out a niche as a "mask influencer". The pandemic brought her passion to the masses. Now she not only promotes new masks, she also advises those suffering from "mask addiction" on how to take them off.

Even before covid-19 arrived, mask use was common in Japan. Many wore them as a barrier against pollen during hay-fever season or to protect others when sniffly. During the pandemic, the practice became pervasive, though the government has never enforced a mask mandate. It looks set to continue. A recent survey showed that half of Japanese would like to keep wearing masks as much as possible, regardless of medical advice or rules.

Some reckon the attachment to masks is a function of social conformity. Since mask-wearing has become common practice, no one wants to be the one to buck the trend. "In Western countries if there's coercion, people feel their freedom is invaded, but in Japan people feel it is fair if everyone is doing it," says Yonaha Jun, a cultural critic.

Japanese communicative culture may place a greater emphasis on the eyes than the mouth. Consider emoticons (or their newer avatar, emoji), says Yamaguchi Masami of Chuo University: in the West, the shape of the mouth changes the expression, such as :-P or :-D. In Japan, the eyes do: (><) or ^^. Ms Yamaguchi, who has conducted studies on how facial expressions are perceived, reckons that people in East Asia tend to spend relatively more time looking at the eyes of a speaker, while Westerners focus more on the mouth. Masks, she argues, are thus less of an impediment to socialising.

Moreover, young people have discovered that masks can be useful for covering up unflattering features, blemished skin or crooked teeth. Men can get away without shaving, and women without putting on make-up. Some young women believe masks make their eyes seem larger and prettier.

A new lexicon has emerged. Some call masks "kao pantsu", or "face underwear", reflecting how essential they have become. Among adults, a "masuku bijin", or "mask beauty" is someone who looks beautiful in a mask; a "masuku sagi", or "mask fraud", is someone who looks good with one on, but less so with it off. Fear of being deemed a mask fraud is another reason to keep the things on.

Zawachin's advice is to take it slowly. "It takes a lot of courage to take it off all at once," she says. Try spending a few days with the mask below your nose, then shift to wearing it below your lips, and finally below your chin. Eventually, she suggests, it will start to feel normal to live without a mask.



Indonesia

A nation at a loss

SINGAPORE

A football disaster puts the spotlight on an unaccountable police force

AFTER A PAINFUL 3-2 defeat to their arch-rivals Persebaya Surabaya on home turf in Malang, a city on the Indonesian island of Java, Arema Football Club's players might have been dreading the customary talking-to from the manager. Instead, the dressing room in their Kanjuruhan Stadium became a place to line up corpses. Players cradled the bodies of dying fans. Out in the corridors, tear gas choked the air.

The pandemonium began just after the final whistle blew on October 1st, when some 3,000 Arema fans ran on to the pitch. Videos show police in riot gear chasing them off the field, beating some with batons. Police then fired round after round of tear gas into the stands, in an apparent attempt to disperse the crowd. That it did, but not without triggering a stampede for the exit. By the time the chaos subsided, at least 131 people had died, including 33 children. It is the worst sporting disaster to occur anywhere in nearly six decades.

Indeed, the tragedy in Malang is nearly identical to one in 1964, when Peruvian police responded with tear gas to a pitch invasion during a match against Argentina, causing a stampede that killed 328 people. FIFA, football's global governing body, has long banned the use of tear gas at its tournaments. Yet the rules are mere "guidelines" when it comes to domestic fixtures such as the one in Malang. Making matters worse, local officials had sold 4,000 tickets over Kanjuruhan's capacity of 38,000. And though the stadium usually opens its exits ten minutes before the end of a game, this time they stayed locked.

Indonesian football already had a reputation for danger. Hooliganism is rife. When rival clubs square off, as in this case, only supporters of the home side are permitted to attend. Many fan groups prepare for skirmishes anyway. Between 1995 and this month, 86 people had died at football matches in Indonesia, usually in clashes between fans, according to Save Our Football, a campaign group.

The tragedy highlights a deeper problem. Indonesia's national police—Polri for short—has expanded its power since the military retreated from public life after democratisation in 1998. Budgets have grown, but accountability has not. Polri is seen by many Indonesians as heavy-handed, ineffective and corrupt. Allegations surfaced this year that Ferdy Sambo, an in-

**An avoidable tragedy**

fluential policeman, had arranged the murder of his aide and covered it up. It took widespread outrage, and many interventions by the president, Joko Widodo (better known as Jokowi), before Polri held a proper investigation. "This is a cultural problem," says Dominique Nicky Fahrizal of the Centre for Strategic and International Studies, an American think-tank.

Jokowi has paused all football pending a fresh review of stadium security. The scale of the calamity suggests that someone will have to be held responsible. The head of Polri has sacked the Malang police boss and suspended nine other officials from their posts. The 18 cops who fired tear gas are under investigation. The government has announced it will form a "fact-finding team", which will report back to the president within a month explaining what went wrong and who is to blame.

Yet it will do little to diminish the power of Polri. Jokowi, who entered politics as an outsider with no military ties, has courted the police even more than is typical for a president. Polri is "actively building legal cases against government opponents, silencing critics and persecuting those who threaten the president's power", writes Made Supriatma of the ISEAS-Yusof Ishak Institute, a think-tank in Singapore. The police expect to receive impunity in exchange for such favours, says Jacqui Barker, a lecturer at Murdoch University in Australia. Promising pushes for reform after the Sambo scandal have lost momentum.

Jokowi's normally sky-high approval ratings have sagged in recent months, as inflation bites and voters fume at his cuts to fuel subsidies. Providing justice for the victims of Malang would be a big boost. But any deeper reform would be politically difficult. In Indonesia's flawed democracy, it can be a dangerous game if the police do not believe you are on their side. ■

India's useless opposition

Pantomime politics

DELHI

The Congress party seems determined to prove its critics right

IT SEEMED LIKE a test in a hero's journey, that ancient Indo-European narrative form. On October 2nd Rahul Gandhi was delivering a message of love and brotherhood to his countryfolk in the state of Karnataka when the heavens opened. Unperturbed, the sudden princeling of the country's main opposition party, the Congress, carried on. He was on only the 25th day of his five-month, 3,570km *Bharat Jodo Yatra* (Unite India march), a bid to revive his struggling party as the counterweight to the ruling Bharatiya Janata Party (BJP) of Narendra Modi, the prime minister. "Neither rain, heat, nor storms can stop this *yatra*," he extemporised.

Alas for Mr Gandhi, his message of unity failed to get through to his own party members. As he was getting soaked in Karnataka, his family's lieutenants back in Delhi, India's capital, were busy with another round of the self-sabotage that has hobbled the Congress for years.

The latest brouhaha arose from what was, in theory, a good idea. In August the party announced that, for the first time in over 20 years, it would hold elections to choose a new president, rather than allow Mr Gandhi, his sister Priyanka and their mum Sonia, who have long run the Congress as a family business, to anoint one. The hope was that a talented politician not called Gandhi might be able to repair the image of the party, which voters associate with nepotism and incompetence. It has lost 90% of seats in national elections in which it directly faced off against the BJP since 2014, according to a database maintained by Ashoka University near Delhi.

India's baroque democracy has plenty of strong regional parties which can, and often do, best the BJP in state elections. But they have little clout or organising power at the national level. With the next general election less than two years away, the ability of the Congress to lead a credible coalition against the BJP is crucial. For all its theatrical dysfunction, it remains the only other party with a national presence.

Yet its ineptitude at winning elections extends to conducting them, too. Shashi Tharoor, a charismatic MP and former diplomat who is not part of the Gandhis' inner circle, announced his candidacy early on. But it quickly became apparent that Mrs Gandhi, the matriarch, favoured Ashok Gehlot, the chief minister of the big, poor north-western state of Rajasthan. Party ➤

► rules meant that Mr Gehlot would have had to step down from his post in Rajasthan before taking over as Congress president. This prompted resistance from members of his state's legislature, who opposed the party high command's favoured successor for his job. On September 29th Mr Gehlot withdrew his candidacy, preferring to keep his current powerful job rather than become a figurehead bossed around by miscellaneous Gandhis.

Mr Gehlot's sudden exit from the contest left the top brass scrambling for a replacement. Though the party stresses that

the leadership endorses no candidate, few doubt that Mallikarjun Kharge, an 80-year-old Congress veteran, is the Gandhis' man. He will now face off against Mr Tharoor on October 17th, and will probably win.

Mr Gandhi himself appears equivocal about leading the party. He resigned from the presidency and handed it back to his mother after losing his seat in 2019. Yet he has failed to nurture talent or create an effective party machinery. Nor has he used his power to enforce an actual democratic contest for the presidency. On October 2nd Mr Kharge, cheered on by the party estab-

lishment, suggested to Mr Tharoor that it would be best if the party found a "consensus candidate", implying that Mr Tharoor should withdraw. None of the Gandhis contradicted him. The next day a Congress bigwig told the Wire, an online news site, that any winner would in any case be the "lesser" leader to Mr Gandhi.

The farce will roll on for another few days yet. Mr Modi and his supporters, at least, will get a chuckle out of it. For the many Indians who would like to see a viable opposition, it is another act in the long-running tragedy of the Congress party. ■

Banyan Whose blue?

What Pacific island states make of the great-power contest to win them over

TO STRATEGIC PLANNERS in Beijing and Washington, the newest locus of an intense great-power contest between China and the United States and its allies is self-evident: the vast southern sweep of the Pacific Ocean and its island states. The West first grew concerned in 2018, when a government-directed Chinese bank said it would fund the construction of a wharf in Vanuatu, north-east of Australia. The government in Canberra, Australia's capital, feared it might be a precursor to a Chinese naval base in the region (it wasn't). Then, three years ago, Chinese financial and other blandishments led Kiribati and the neighbouring Solomon Islands to switch their diplomatic allegiance from Taiwan, with which they had had ties for decades.

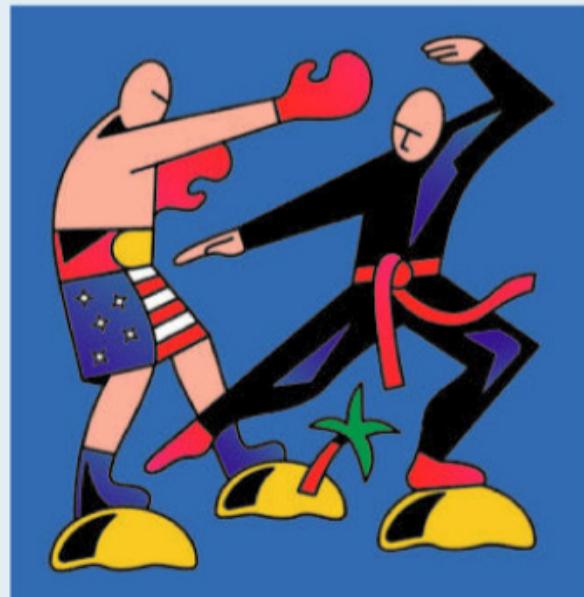
This April, China signed a security agreement with the Solomon Islands, allowing ship visits and the deployment of armed police and military personnel (if invited), again causing alarm in Australia. In May China's foreign minister, Wang Yi, embarked on a tour of island nations in an attempt to get them to sign up to a "China-Pacific Island Countries Common Development Vision"—a new geopolitical bloc, in short. Proposals included closer co-operation on policing and cyber-security as well as freer trade.

America was caught napping. President Joe Biden's administration has been trying to make up lost ground since. In July the vice-president, Kamala Harris, addressed the Pacific Islands Forum, the region's pre-eminent grouping, promising deeper engagement. And in late September the White House launched its first Pacific islands strategy at a two-day summit with Pacific leaders hosted by Mr Biden in Washington. It involves opening new embassies and offering \$810m in fresh assistance, including help for

protection against unregulated fishing and the impact of rising seas. The strategy is to incorporate the South Pacific into an "Indo-Pacific" security framework designed to counter China's rise.

For all that this unfolding contest seems new to its protagonists, the Pacific islands themselves remember previous eras when their external relationships were determined by great powers. In the 19th century Britain and France competed for Tahiti and the scattered islands of modern French Polynesia. Germany and Britain struggled for control over Fiji, Samoa and the east of the island of New Guinea. Americans were behind the Pacific's first coup, in Hawaii in 1893 (they annexed the islands soon after).

Japan acquired most of Micronesia after the first world war. The Battle of Guadalcanal on and around the Solomons' main island saw some of the second world war's most bitter fighting. During the cold war, the Soviet Union's fishing deals with Kiribati and Vanuatu provoked the same kinds of security concerns in the West that Chinese actions do today.



Bearing that history in mind helps with an understanding of Pacific nations' sense of vulnerability today—and their deep pride. They resent being played, especially when they are not consulted. Perhaps Mr Wang should not have been surprised when nations collectively rejected his proposal—China had not bothered to run it by them.

By the same token, perhaps Western hawks have misread the Solomon Islands' security agreement. For all that murky Chinese money seems to have been deployed to ensure political support for its promoter, the prime minister, Manasseh Sogavare, his concern was not to interpose his country in the great-power game but was, rather, domestic: preventing a repetition of deadly riots in the capital, Honiara, last year.

Judged by the islands' willingness to sign up to his programme, Mr Biden has fared better than Mr Wang. But signing up is not much of a commitment, and certainly no cast-iron vote for an American-led order. After all, trade is hugely more desirable than aid, and China offers much more potential for that. Meanwhile, the island states have seen promises of American re-engagement in the past, including when Mr Biden was vice-president, amount to little.

Still, Mr Biden has taken a big step by acknowledging that whereas America sees security in hard-power terms, Pacific islands see it very differently, in terms of rising sea levels and development. And as a result, Pacific states are not being treated, as Fiji's attorney-general put it, as "small dots spotted from plane windows of leaders en route to meetings where they spoke about us rather than with us". That is welcome. But a dismal history does not offer great confidence that it will endure.





Elite politics

Interfering elders

To Xi Jinping, it matters what retired leaders think

THE 20TH
COMMUNIST
PARTY CONGRESS **20**

SONG PING was too young in the 1980s to have been counted among the “immortals”—a jocular term used at the time to describe Communist Party veterans who were playing a big role in politics despite having retired. Perhaps he deserves the title now. At 105 years old, he is still going strong, making him the doyen of the 20 or so former members of the Politburo Standing Committee—the apex of party power—who are still alive. Those fit enough are expected to appear at a five-yearly party congress that starts on October 16th. How much do such elders matter today?

Like his fellow retired grandes, Mr Song seldom speaks in public. So when video footage of him addressing a charitable foundation emerged online in September, it caused a stir on Chinese social media and overseas Chinese news sites. Some tried to portray it as a rebuke to China’s leader, Xi Jinping. They quoted Mr Song

saying that the only path forward was “reform and opening”—bywords for the economic liberalisation launched by Deng Xiaoping in 1979, which has regressed under Mr Xi. That is probably wishful thinking. The footage provides no evidence that Mr Song uttered those words. Even if he did, Mr Xi has used the same phrase. Mr Song is known as a staunch conservative.

Still, the episode is a timely reminder of the potential for former leaders to cause trouble for Mr Xi, who is expected to be given a third five-year term as party chief right after the congress, in breach of retirement norms. Public criticism from an elder such as the widely respected former prime minister, Zhu Rongji (pictured at the congress in 2017), could be damaging, especially just before a congress—although Mr Zhu is 93

and rumoured to be unwell.

There is no sign of a direct challenge to Mr Xi. But as he continues to support Russia over its disastrous war in Ukraine, and refuses to abandon his “zero-covid” policy that is crippling China’s economy, many members of the elite now have reason to be deeply unhappy about their own, and the country’s, circumstances. Should Mr Xi ever find himself under political attack, it is more likely to involve the elders rather than a military coup or a mass uprising, according to many academics, diplomats and others who study Chinese politics.

One such expert is Joseph Fewsmith of Boston University. “I assume there are a lot of people at very high levels who really don’t like Xi Jinping, and covid policy is the obvious attack point,” says Mr Fewsmith. “It doesn’t strike me as out of the realm of possibility that there could be a number of retired leaders who might want to coalesce and say something. But logically it’s very hard to do.”

For more than three decades after Mao Zedong’s death in 1976, party elders wielded considerable power. Between 1982 and 1992 they sat on a formal advisory body. After that was scrapped, some were still allowed to see the party’s most important secret documents. They regularly met foreign dignitaries. And they gathered annually with incumbent leaders in the beach resort of Beidaihe to discuss policy and personnel decisions. Deng remained hugely influential at least until a year or two before he died in 1997 at the age of 92.

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Since Mr Xi took power in 2012, however, he has curtailed many of the elders' perks, anxious to avoid the same fate as his predecessor, Hu Jintao, who suffered almost constant meddling from his own predecessor, Jiang Zemin. Mr Jiang (whose early rule had been overshadowed by the elderly Deng) stepped down as party leader in 2002 but remained military chief until 2004 and continued to pull strings from behind the scenes long afterwards.

Mr Xi made it clear he would not tolerate any such interference. In what was widely seen as a warning to Mr Jiang in 2015, the party's mouthpiece, the *People's Daily*, advised retired leaders that "once people leave, the tea cools down". It accused some elders of trying to promote allies to prolong their influence, and urged them to "adjust their mentality...so as not to fall into endless troubles". Mr Xi's anti-corruption campaign has targeted several allies of Messrs Hu and Jiang. Most striking was the downfall of Zhou Yongkang, who in 2015 became the first former Standing Committee member to be convicted of corruption. The threat of similar probes into other elders—or their family members—remains a powerful deterrent.

Under Mr Xi, party elders are thought to live under close surveillance, and to have to arrange public appearances and meetings with other senior figures through the party's General Office, which is currently run by a close ally of Mr Xi. Many of the most influential elders are now too old to be socially active anyway. Mr Jiang is 96. He has long been rumoured to be gravely ill.

And yet in one sign of continuing concern about the elders Mr Xi tightened restrictions on them further this year. In May the party's Organisation Department, which manages personnel, published new rules demanding that retired officials, especially those who held leadership positions, should not "arbitrarily discuss" policy or spread "politically negative remarks".

Mr Xi may have allowed the elders a limited say in this month's leadership shuffle (several Politburo members are due to retire). For its congresses in 2007 and 2012 the party conducted straw polls of 200 candidates for Politburo membership. In 2017, however, candidates were instead selected after face-to-face interviews with incumbents. Mr Xi also sought opinions from 57 leading figures, including elders, state media said. Elders thus retained their right to express views, but Mr Xi gained more leeway as he saw them individually and denied them a chance to join forces or vote, says a Chinese academic who studies the party's politics.

The party has not identified the 57 people consulted in 2017. But they are thought to correspond closely with a body called the Standing Committee of the Praesidium, which had 42 members at the most re-

cent congress, including all retirees from the Politburo Standing Committee. It plays a largely ceremonial role at the congress, overseeing the agenda and election of a new Central Committee.

Mr Xi will probably have used the same system this year, as it was hailed a success in 2017, the Chinese academic says. That means elders will almost certainly be unable to block Mr Xi's third term but could still influence the new Standing Committee's membership by nominating protégés. Mr Xi could ignore them. But for the moment, he must be wary of humiliating elders to a point where they feel obliged to speak out, whatever the consequences. By the next congress in 2027, that should be a lesser concern as several more senior elders may have passed on. ■

Training officials

Class struggle

BEIJING

China's academies for cadres used to allow bold political thinking. No more

COMMUNIST PARTY congresses are rubber-stamp affairs. The 2,300 delegates who will attend the five-yearly jamboree later this month in Beijing will have almost no chance of scuppering the decisions—already made in secret—that will be unveiled at the event. To ensure that they stay in line, many of them must undergo training. Delivering it is often the job of a vast system of schools that the party uses to transmit skills and ideology to bureaucrats.

In recent days, several provinces have reported on lessons being given at these schools to congress delegates who have no



Keep quiet and listen to Xi

official titles (model workers, farmers and the like). The classes appear to focus on the need for loyalty to the party's leader, Xi Jinping, and on instilling the principle that "whatever the party asks me to do, I will do", as one account put it. The training typically lasts two days.

Normally, however, the students are officials. In a recent paper David Shambaugh of George Washington University wrote that nearly all of China's roughly 50m functionaries, from central government ministers down to township chiefs, have moved through the training system, usually for mid-career stints ranging from one week to two years. Mr Shambaugh described the system, comprising about 7,000 institutions, as a "critical cog in the machinery" of party control. Subjects taught range from Marxist theory to the nitty-gritty of public administration. Some even grant degrees, including MBAs.

The most prominent types are known as party schools. Before Mr Xi came to power, these sometimes fostered innovative thinking, including in the political domain. Students talked about how to make the party more democratic with freer elections for its leaders. Schools often invited foreign scholars to lecture, even on liberal democracy. At the Central Party School in Beijing, officials "might be discreet in talking to strangers or in public, but their internal discussion in class is unbounded", *China Daily*, a state newspaper, enthused in 2011—albeit with hyperbole (party rule itself could never be questioned).

But Charlotte Lee of Berkeley City College, who has written a book on the training system, says the schools have since fallen under greater centralised control, enforced by inspection teams. What freedom party schools might have enjoyed "has faded", she says. Mr Xi made this clear in a speech in 2015 at the central school. "On the important principle of upholding the party's leadership, we must be very clear-headed, bright-eyed and firm in our stance, and we must not have any ambiguity or wavering," he said. Cai Xia, an exiled former teacher at the school, says that Mr Xi showed "dictatorial" tendencies in 2009 when, as the school's president but not yet the party's boss, he warned the faculty against criticising party policies.

The same trend has been evident at schools that specialise in teaching management skills to bureaucrats. These were set up in the 1980s under Deng Xiaoping, who wanted to establish a professional civil service and even (for a while) encouraged efforts to create a wider gap between party committees and the government apparatus. Under Mr Xi, cadres have been incessantly reminded that the committees hold sway. As for delegates to the upcoming party congress, the clear message is that Mr Xi's will counts more than anything. ■

Tibetan Buddhism

Sinifying Shangri-La

When Han Chinese seek spiritual salve in Tibetan Buddhism, the Communist Party discourages them

CHINESE TOURISTS celebrated this summer when it was announced that Larung Gar would soon be open to visitors again. Many had long dreamed of seeing the remote Tibetan Buddhist settlement, home to thousands of crimson-robed monks and nuns living in little red huts sprawled around a monastic centre in the mountains of Sichuan province. The sight alone could cleanse one's soul, bloggers gushed. Too bad, then, that it was closed again a few weeks later, ostensibly to control an outbreak of covid-19.

Throughout the pandemic the government had been blocking public access to Larung Gar. It probably has not wanted people to see evidence of its clampdown on the community, whose population had been growing rapidly in recent years. Officials had been demolishing parts of the settlement, evicting many residents and requiring those who remained to undergo "political education"—meaning being taught to obey the Communist Party.

The authorities' efforts have not dampened public enthusiasm in China for what some call "the last pure land in China". Tourists share tips on social media about how to circumvent roadblocks around the academy. Just take a motorcycle up the mountains and then walk in through a back trail, advised one travel vlogger from the central province of Hunan.

To stifle separatism, the government subjects Tibet to harsh controls. But Tibetan Buddhism has grown increasingly popular among members of China's ethnic-Han majority, most of whom live far from the Tibetan plateau where Larung Gar is located. Their enthusiasm has been fuelled by Tibetan efforts to spread their faith. The academy at Larung Gar was founded in 1980 by Jigme Phuntsok, a Tibetan Buddhist master. He wanted to revive Buddhism across China, where a non-Tibetan form has a centuries-long history. He gained thousands of followers during a visit in 1987 to Wutai Mountain, a sacred mountain in the northern province of Shanxi.

By the late 1990s nearly a thousand Han Chinese disciples were living at Larung Gar. Mandarin interpreters helped them understand Jigme Phuntsok's teachings, which later spread online. Tibetan lamas occasionally visited disciples in inland China where many Han Buddhists formed study groups, meeting weekly in private homes, offices and local temples.

Officials often turned a blind eye to such gatherings, regarding Buddhism as less threatening than Western-backed Christianity or potentially radical Islam. Few Han followers of Tibetan Buddhism supported Tibetan independence. Buddhist leaders of Jigme Phuntsok's sect were also carefully apolitical. In 2014 *Renwu*, a state-controlled magazine, featured Khenpo Sodargye, Jigme Phuntsok's successor, as one of its "people of the year".

Today Mr Sodargye is a bestselling author with nearly 3m followers on Weibo. His writings mostly discuss urban middle-class concerns such as money, stress and escaping the rat race—topics that are both popular and politically safe. During a harsh covid-related lockdown in recent months on the Tibetan plateau, which has triggered much online grumbling, he has spoken of the need for forbearance.

But the government is becoming more wary. Activists and scholars in touch with Han followers of Tibetan Buddhism say that the livestreaming of teachings in Larung Gar and other monasteries has been blocked since mid-2021. Pressure has been put on home groups to stop meeting. In Shaanxi and Guangdong provinces, state-affiliated Buddhist associations have banned "illegal preaching by Tibetan monks". On the plateau, officials have ordered clergy not to travel for religious purposes without permission. Han disciples at Larung Gar, who numbered about 2,000

by 2019, have been forced to leave. The party is trying to "segregate" Buddhism in China, says Tenzin Norgay of the International Campaign for Tibet, an NGO.

Ironically, this is happening amid a party campaign to "sinify" religions, including Tibetan Buddhism. The aim is to make religious leaders and believers identify with the Chinese "motherland", Chinese culture and the party. This has resulted in tighter party controls over every faith. Last December an article by Zhu Xiaoming, a party scholar of Tibetan affairs, expressed concern about Chinese believers who, he said, had evolved from using religion for utilitarian purposes to embracing it for spiritual sustenance. "The ideological contest between theism and atheism is a struggle for hearts and minds," said Mr Zhu. Party members should preach more atheism and materialism, he said, to win the Chinese people back.

That may prove an uphill battle. Tibetan Buddhism has attracted many Chinese followers precisely because of their disillusionment with modern materialism. The point of Buddhism is to escape from the empty suffering of secular life, says one Han practitioner who asked to be referred to by his Buddhist name, Puba Duoqie.

Like many other Han followers of Tibetan Buddhism, Puba Duoqie thinks Buddhist temples in Han areas have become over-commercialised and too closely linked with officialdom. He says their teachings have become "like diluted milk". Puba Duoqie reckons that the government's efforts to prevent Tibetans from preaching their faith to Han Chinese will not deter true disciples or their teachers. The party has existed for only a hundred years. Lamas believe they are planting seeds of Buddhism that will bear fruit over many lifetimes. Their patience comes from a much longer-term view. ■



Be careful how you seek enlightenment

Chaguan | Spoiling for a fight

China's relations with America were in trouble long before Donald Trump clashed with Xi Jinping



AS COMMUNIST PARTY leaders tell it, China's relations with the West resemble a brawl between heavyweight champions, made vicious by American cheating. This narrative of grievance has been building for years and starts at the top. In July 2018, as China reeled under the first blows of Donald Trump's trade war, President Xi Jinping hosted European Union leaders in Beijing. In closed-door discussions with his guests, Mr Xi accused America of behaving like a fighter in a "no-rules boxing match". Since then, Chinese complaints have not been muted by Mr Trump's defeat and replacement by President Joe Biden. That is odd, because Mr Biden is a politician of the old school, whose diplomatic style—truth be told—involves more back-slapping than eye-gouging.

In part, Chinese grumbling is tactical: a bid to blame bilateral tensions on America. When Wang Yi, China's foreign minister, met his American counterpart Antony Blinken on the sidelines of the UN General Assembly in September, he urged the Biden administration to "reflect on and change" what he called its efforts to contain China's rise. In part, a chin-jutting stance serves the self-interest of foreign-policy bureaucrats. When Chinese diplomats portray their country as the victim of Western low blows, and promise to punch back, they are answering calls from Mr Xi to show "fighting spirit". The Chinese foreign ministry can read opinion polls. Lots of its diplomats know that China's image has been harmed in liberal democracies by "wolf warrior" colleagues: foreign ministry spokesmen and ambassadors who lash out at critics of China on Twitter and in foreign media interviews. But wolfishness is popular with China's public. At a recent press conference on diplomacy in the Xi era, a deputy foreign minister, Ma Zhaoxu, growled: "Our diplomatic struggle is aimed at words and deeds harmful to Chinese national interests and national dignity."

Visions of China and America as two bullies in a ring, in a fight that turned ugly during Mr Trump's presidency, are shared by many foreign governments, notably in the developing world. In Beijing, it is common to hear diplomats from emerging economies call their countries unwilling bystanders to an ideological feud that threatens to disrupt trade flows and create a global split.

It is true that relations worsened in the Trump era. Though seemingly untroubled by Mr Xi's autocratic ways (telling China's

leader that he was right to lock up Uyghurs and other Muslims, according to his former national-security adviser), Mr Trump saw populist opportunities in telling American voters that China had stolen their jobs and sent covid-19 in return. More conventionally hawkish American officials took advantage of Mr Trump's combative instincts to enact policies that treated China as a comprehensive threat to national security.

Yet it is too simple to reduce today's geopolitical complexities to a slugging-match begun by two men, Mr Trump and Mr Xi. It is also at odds with history, as described in a new book, "Overreach: How China Derailed Its Peaceful Rise" by Susan Shirk, a scholar and former American diplomat who first visited China in 1971.

Drawing on interviews with Chinese officials, military men and at least one (unnamed) government minister, Ms Shirk, a professor at the University of California, San Diego, records how China's foreign and domestic policies took a hardline turn as long ago as 2006. That was during the tenure of Hu Jintao, Mr Xi's cautious, wooden predecessor, who in his decade as Communist Party chief had to accommodate powerful factions and interest groups, like a weak emperor ruling at the pleasure of feudal barons.

Many alarming policies associated with Mr Xi began under Mr Hu. In the field of foreign policy, these range from sending warships, fishing fleets and oil-drilling rigs to confront neighbours in the South China Sea and other disputed waters, to declaring an ever-longer catalogue of Chinese "core interests" that foreigners may not challenge. At home, the Hu era saw increased party control over the legal system, stricter censorship, repression of Tibetans and other ethnic minorities and a greater role for state-owned enterprises, notably in sensitive technology sectors.

Mr Xi's revival of one-man rule is blamed for removing checks and balances on hardline policies, and with reason. But under Mr Hu, control-obsessed factions, from the armed forces to propaganda and security agencies, took advantage of weak, collective leadership to advance their interests by exaggerating threats to internal stability and external security, Ms Shirk writes. Democratic "colour revolutions" in the former Soviet bloc fed paranoia about American-led plots. The global financial crisis provoked nationalist triumphalism about Western decline. The party forgot the advice of Deng Xiaoping, paramount leader of the post-Mao era, that China should hide its strengths and bide its time, to create an environment conducive to economic development.

Bullying foreigners to impress the home crowd

Tests of American strength began long before Mr Trump's election. His predecessor Barack Obama sought to work with China on such global challenges as climate change, and made a point of not condemning its political system. China did not reward him. Mr Obama had barely been sworn in when China began harassing American surveillance ships. His first visit to the country involved multiple snubs. First under Mr Hu then under Mr Xi, China bullied America's allies in Asia, Japan and South Korea. It also broke public commitments to Mr Obama over the militarisation of reefs in the South China Sea and commercial espionage. Ms Shirk's sources see structural causes for this overreach. In the paranoid, secretive world of elite Communist Party politics, foreign-policy swagger is intended to signal strength in domestic fights.

The book concludes by describing a better model for competition with the West: a race in which each side tries to get ahead, rather than a boxing match designed to hurt or change the other. For now, alas, China's rulers see more incentives to fight. ■

SPECIAL REPORT:

The world economy

→ October 8th 2022

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- 6 Is it all a debt trap?
- 7 Climate investment
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- 10 Whither inflation?
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Regime change

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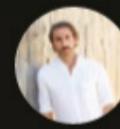
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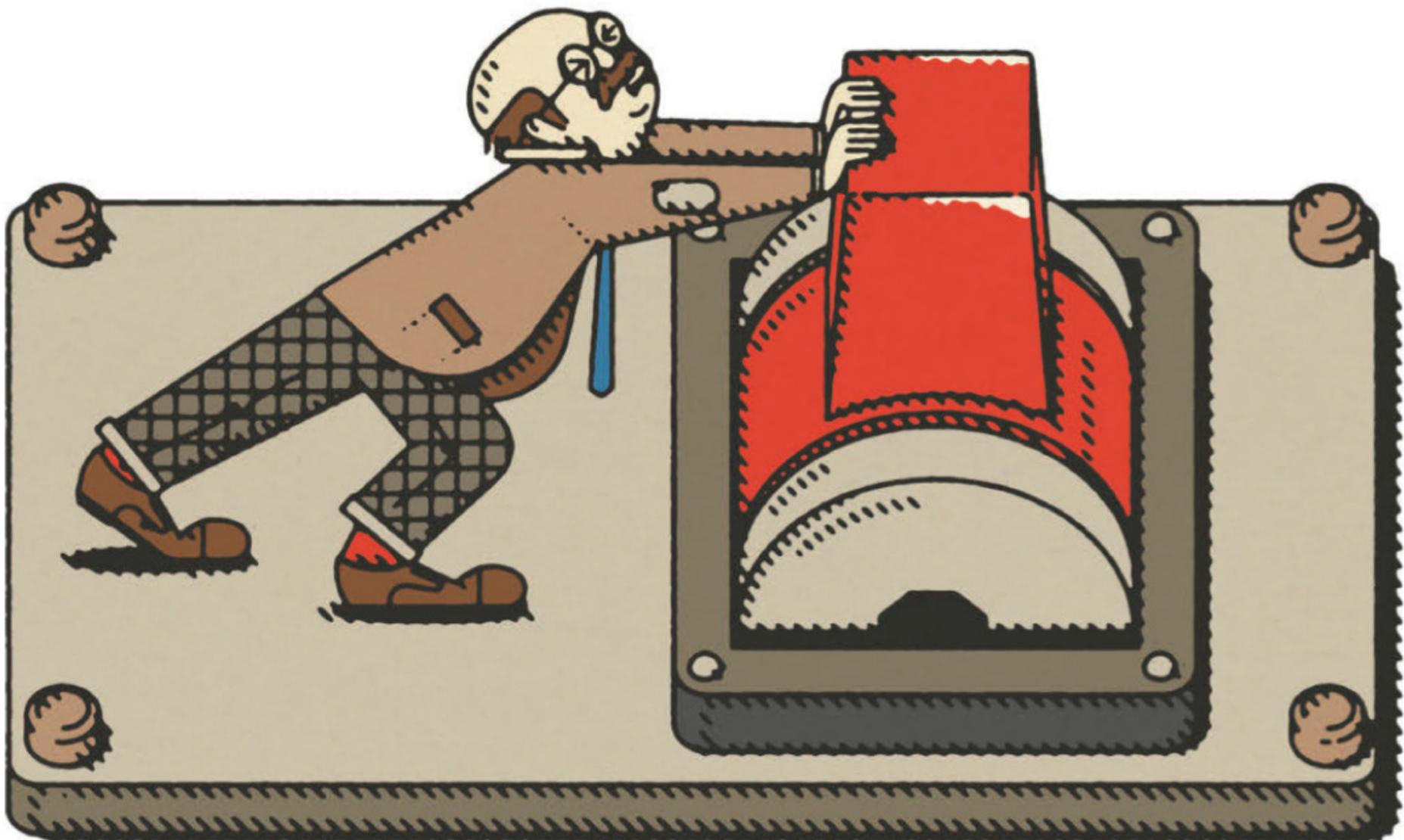


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Regime change

Surging inflation and rising demands on governments have brought a pivotal moment for economic policy, says Henry Curr

IN 2013 JULIO ROTEMBERG, an economist, proposed a theory of what drove once-in-a-generation shifts at the Federal Reserve: penitence. Something deplorable would happen in the economy, like the Depression in the 1930s or the great inflation of the 1970s. The central bank would be blamed. Then it would absorb the criticisms and change course. Monetary policymakers were, in effect, engaged in a decades-long process of trial and error.

A moment of penitence has struck again today—and not just in America. Global inflation has surged to 9.8%, catching policymakers, economists and investors by surprise. Central banks, having spent most of 2021 insisting that inflation was a post-pandemic aberration that would dissipate in a few months, have abruptly changed tack. Fully 33 of 38 central banks monitored by the Bank for International Settlements, the central bankers' central bank, have raised interest rates in 2022. The Fed has tightened monetary policy more sharply than at any time since the 1980s. Andrew Bailey, governor of the Bank of England, has spoken of "the largest challenge to the monetary-policy regime of inflation targeting" in its history. Like medieval medics preparing for bloodletting, many central bankers talk sternly about the pain that will be necessary to get inflation down.

It is not just central bankers. Governments are repenting too. But even as monetary policy is on course to switch from stimulus to restraint, governments have moved in the opposite direction. During 2020 and 2021 they spent 10% of GDP supporting their

economies and provided another 6%-worth of loans. Whereas after the global financial crisis of 2007-09 many quickly turned to trying to balance budgets in the belief that their debts risked becoming unsustainable, today they are continuing to borrow and spend, on everything from tax cuts to subsidising energy bills.

This special report will argue that a great policy reversal is under way in the rich world. The tight-fiscal, loose-monetary policy mix that defined much of the 2010s is being upended into a loose-fiscal, tight-monetary policy one. The likely result is a tug-of-war between hawkish central banks and spendthrift governments that will make inflation harder to fight. It will lead to a reckoning about just how much short-term pain societies are willing to bear in the name of long-term economic stability. But it could, ultimately, help economic policy into a beneficial reboot.

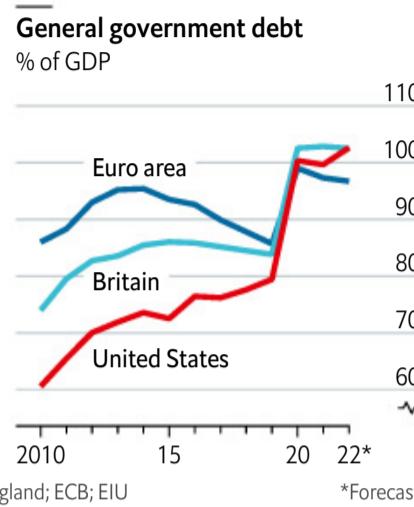
Back to the future

The last time the world fought an inflation breakout, in the 1980s, monetary and fiscal policy worked in tandem to wring excessive spending out of the system. Between 1978 and 1984 Britain, Germany and Japan all dramatically cut their budget deficits; France and Canada did so at a gentler pace. The big exception was America, where Ronald Reagan's unfunded tax cuts hit the economic accelerator even as Paul Volcker's Fed was slamming on the brakes. But although Volcker usually gets the credit for taming inflation, it was not fully vanquished until monetary and fiscal policy worked ➤

No, our pen didn't slip



Sources: Federal Reserve Board of Governors; Bank of England; ECB; EIU



*Forecast

► in tandem there as well. America's taxes rose, and budget deficits fell, in the second half of the 1980s, stopping inflation from rebounding as it had done after the recessions of the 1970s. A number of economists argue that the change in fiscal policy was crucial to bringing inflation under control.

Yet similar fiscal retrenchment looks highly unlikely today. In Britain Liz Truss, the new prime minister, has cast aside the fiscal austerity that her Conservative predecessors espoused in the 2010s. Her government is borrowing more to fund tax cuts, lambasting Britain's economic "orthodoxy" of the past two decades. The European Union is doling out its €807bn (\$782bn) "Next Generation" fund designed to underpin solidarity in the bloc, a level of fiscal integration and largesse that was unimaginable before the pandemic. The Japanese and South Korean governments are rhetorically committed to reducing borrowing but their actions speak louder than their words: Japan has stepped back from a target to balance its budget by 2025, and South Korea says it plans soon to cut corporate and income taxes.

America has passed the Inflation Reduction Act, a climate-change law that will also reduce government borrowing. But the disinflationary effect is marginal, and President Joe Biden's proposed cancellation of student debt will cost roughly twice as much as the act will save. On budget projections from May, before that policy was announced, America's budget deficit was already projected to average nearly 5% of GDP over the rest of the decade, enough to push the public-debt-to-GDP ratio to 105%.

Governments are spending freely to help households with soaring energy bills, especially in Europe, which is adapting to life with much less Russian gas. Protecting low-earners in 2022 would cost less than 1% of GDP, according to the IMF. But governments are going much further. Germany has nationalised Uniper, its biggest gas importer, and is spending €200 billion (5.2% of GDP) on an "economic defence shield" including subsidies that will reduce gas prices. France is capping energy prices and has nationalised EDF, an energy giant. Though windfall taxes on energy firms will pay for some of Europe's spending, deficits will rise, too. Britain could borrow as much as 6.5% of GDP to cap energy prices. Germany is circumventing its usual limits on debt accumulation.

A long list

The pressure on governments to spend will not abate much. Ageing populations push up outlays on health care and pensions. Governments want to decarbonise their economies, which will take significant public front-loaded investment. After Russia's war on Ukraine, NATO members are reiterating previously unmet promises to meet their target of spending 2% of GDP on defence. In

isolation, many of these pressures may be manageable. In combination, they will place budgets under huge pressure.

In theory, big-spending governments plus rising interest rates are a recipe for persistently high inflation and/or a bond-market rout. Investors have given Britain a stark reminder of this danger, reacting to Ms Truss's largesse by selling British assets, especially government bonds. Yet for countries with more stable economic policies, long-term borrowing remains cheap by historical standards, especially once the possibility of higher inflation is taken into account. One consequence of ageing populations is a global glut of savings chasing scarce investment opportunities. There remains plenty of appetite for government debt.

It would be foolish to forgo necessary spending on preventing climate change or securing peace in Europe when the world is awash with capital. Yet both short-term and long-term challenges lie ahead. The immediate difficulty is that big spending by governments will make it harder (and perhaps impossible) for central banks to hit their 2% inflation targets. Governments are unlikely to stand idly by as central bankers inflict pain on their economies in the name of getting inflation down. They could instead unleash fiscal stimulus before the disinflationary task is complete. The danger is even greater when economies are already buffeted by supply-side shocks, notably the energy crisis. Without fixing the underlying shortages, it is not within the gift of governments to stop the economic pain they cause—they can only redistribute to protect the poor. If politicians try to protect everyone's living standards, they will cause prices to rise further.

The long-term challenge is to avoid fiscal crises. Ageing societies are a challenge spanning the whole of the 21st century. If governments do not control their spending on the old, eventually they will run up against fiscal limits, whatever their cost of borrowing. It would be a mistake to accumulate debts simply in order to put off hard choices, using up fiscal space that may be needed in future crises—not just climate change, but also unforeseen disasters such as pandemics. Yet reining in pension and health-care spending is easier said than done. ■

Demography

The ageing paradox

Elderly populations mean more government spending. They also mean low interest rates

AT THE PEAK of concerns over public debt and deficits in 2010, President Barack Obama created a bipartisan commission charged with putting American fiscal policy on a sound footing. Crucial to this was containing growing spending on health care and pensions as America's population aged. By 2020 the resultant "Simpson-Bowles" plan aimed to bring America's debt-to-GDP ratio down to about 66%. Gloomy officials at the Congressional Budget Office (CBO) wrote up an "alternative fiscal scenario" that showed a "clear threat" of a fiscal crisis if corrective actions were not taken. In it, the debt would rise to 95% of GDP in 2022.

The actual figure for this year will be about 98%. That nobody worries much about it any more shows how far economists have rethought the limits on government borrowing in an era of low interest rates. Over the past decade they and many politicians have come to see the panic over debt and deficits of the early 2010s as a mistake. The director of the CBO at the time later admitted that rushing to reduce borrowing was "the biggest error" of the eco-►

► nomic cycle. Worrying about public debt is now deeply unfashionable.

But so, until not long ago, was worrying about inflation. Now that interest rates are rising again, might the fiscal rethink also be reversed? Long-term pressures on budgets from health-care and pension spending continue to mount. The share of the world's population that is over 50 years old has grown from 15% to 25% since the 1950s, and it is projected to rise to 40% by the end of the 21st century. The IMF reckons that by 2030 annual pension and health-care spending in the G20 will have risen by an average of 2.8% of GDP in advanced economies and 2.6% of GDP in emerging markets.

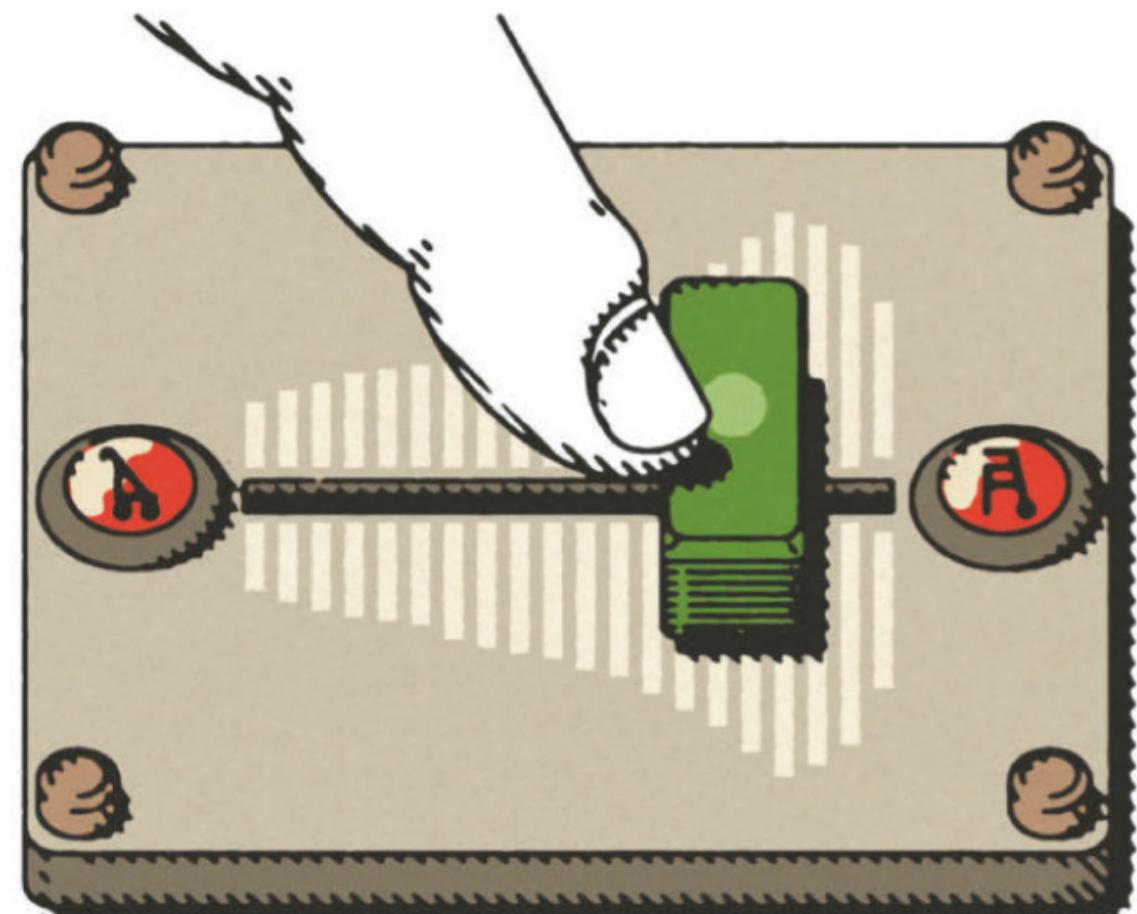
Britain's budget watchdog forecasts that stabilising debts at 75% of GDP would require cutting spending or raising taxes by 1.5 percentage points of GDP at the start of every decade for 50 years, a fiscal consolidation that seems almost unimaginable given that the tax burden is even now at its highest since the early 1980s.

History shows that controlling pension spending in ageing societies is hard. It means taking on "grey power" at the ballot box. In his book "Making Social Spending Work", Peter Lindert studies 36 countries and finds only five that have contained pension spending as a share of GDP since 1990: Chile, Latvia, New Zealand, the Netherlands and Peru. In no Mediterranean country did public-pension benefits grow more slowly than output per working-age person from 1990 to 2013. Many countries have raised the retirement age as ageing has started to bite, but not by enough to stop the length of time that workers live in retirement creeping up—an expensive luxury.

In Japanese footsteps

Much of the West is thus likely to walk the path already trodden by Japan, whose rapid ageing began in the 1990s. Its generosity to pensioners, benchmarked to incomes, is comparable to that of America, says Mr Lindert. Around 2011 Japan reached the dependency ratio of 2.5 people aged 20-64 for every person aged over 64 that is forecast in America for 2050. That year Japan spent about 10% of GDP on the elderly, about a quarter more than America spends today. Rising spending on the elderly has helped propel Japan's gross public debts to a vertiginous 266% of GDP.

Other Asian economies are also ageing rapidly, though their pension systems are not as generous as Japan's. By 2035 there will be 420m Chinese aged over 65. The Chinese government has rolled out pension coverage with remarkable speed over the past decade, yet the basic pension on offer outside cities is beneath the poverty line. South Korea's fertility rate (the number of births per woman) is just 0.81, the lowest in the world; by 2075 it will have three over-65s for every four people of working age. Its pension provision is in the lamentable position of being both stingy and creating a black hole in the budget. The logical path forward is to increase pension



contributions—which is almost as hard as cutting benefits.

Everywhere debt will continue to offer a tempting short-term fix. And although ageing populations are a drag on government budgets, they also limit how high interest rates are likely to rise. As workers approach retirement they build up savings. Today those savings compete for a dwindling set of profitable investment opportunities, because retirements also slow economic growth. In recent decades the scramble for returns has pushed down the so-called "natural" rate of interest, which equilibrates saving and investment globally. The public has lapped up government debt even at the low interest rates on offer.

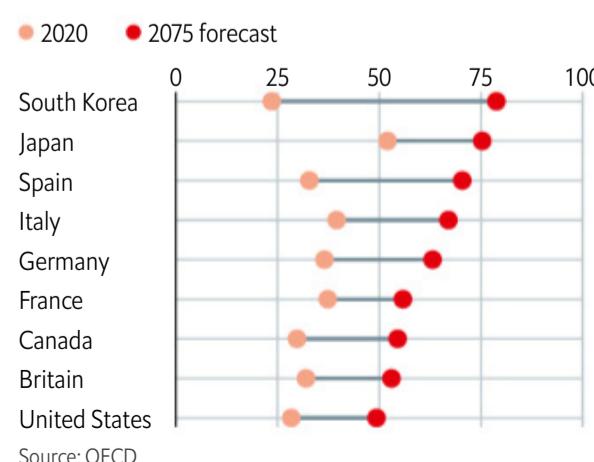
Several studies have found that ageing populations and rising longevity have contributed half to three-quarters of the roughly two-percentage-point fall in the natural rate of interest since the 1980s. Even the slump in bond markets in 2022 has not fundamentally altered the long-term picture. As this special report was being completed, the governments of America, Germany and Japan could still borrow at rates ranging from 0.25% to 3.7%.

Central banks can raise real interest rates temporarily to fight inflation. But the only way real rates can stay persistently high is if the savings-investment balance shifts. Some economists have suggested that this may indeed happen as ageing proceeds. Don't workers saving furiously on the cusp of retirement become pensioners keen to splurge on cruises and cabernet?

In "The Great Demographic Reversal", an influential book, Charles Goodhart, a former official at the Bank of England, and Manoj Pradhan, a forecaster, argue that the crucial factor for interest rates is the world's ratio of workers to pensioners. As this ratio falls in the 21st century, global ►

Older but not wiser

Population aged 65 and over as % of population aged 25-64



► savings will dry up, the authors argue, contributing to a rise in inflation and interest rates.

Yet most economic models reject this view. Elderly households tend to hoard wealth in retirement, rather than running it down quickly. They may limit their spending because they do not know how long they will live, or wish to pass money on to their children. Increasing longevity encourages workers to stash away money for a longer retirement. Using UN population projections and today's behaviour to project forward rates of saving and investment for 25 countries, Adrien Auclert, Hannes Malmberg, Frédéric Martenet and Matthew Rognlie, four economists, predict that global rates

will fall by another 1.2 percentage points between 2015 and the end of the 21st century. Three other economists, Noémie Lisack, Rana Sajedi and Gregory Thwaites, believe there will be a half-a-percentage-point fall in rates by 2050.

The paradox of ageing is thus that it both pushes up government spending and makes possible cheap financing of that spending. In fact, without governments readily running up debts the downward pressure on interest rates in recent decades might have been greater. The tripling in rich-world public debts between 1971 and 2017—from about 20% of combined GDP to about 70%—left rich-world interest rates 1.5–2 percentage points above where they ►

Feedback loop

Is the world economy in a debt trap?

AN ALTERNATIVE EXPLANATION for why real interest rates have fallen since the 1980s is that many countries have become less equal. Richer people save more as a percentage of their income, so as they earn a bigger slice of the economic pie, aggregate savings rise. Atif Mian, Ludwig Straub and Amir Sufi, three economists, say that the American economy suffers from a “savings glut of the rich”, two-thirds of which has been used to finance the debt of the American government or borrowing of other households.

They also propose that rising inequality can cause economies to fall into a “debt trap”. The savings of the rich push down interest rates, encouraging other sectors to borrow and spend more. Over time, the

indebtedness of the poor to the rich transfers income upwards, giving the rich even more savings. The cycle starts again, and real interest rates fall further. Policies to stimulate the economy in the short term, such as low interest rates or debt-financed fiscal stimulus, lead to even more debt, meaning lower rates and worse recessions in future.

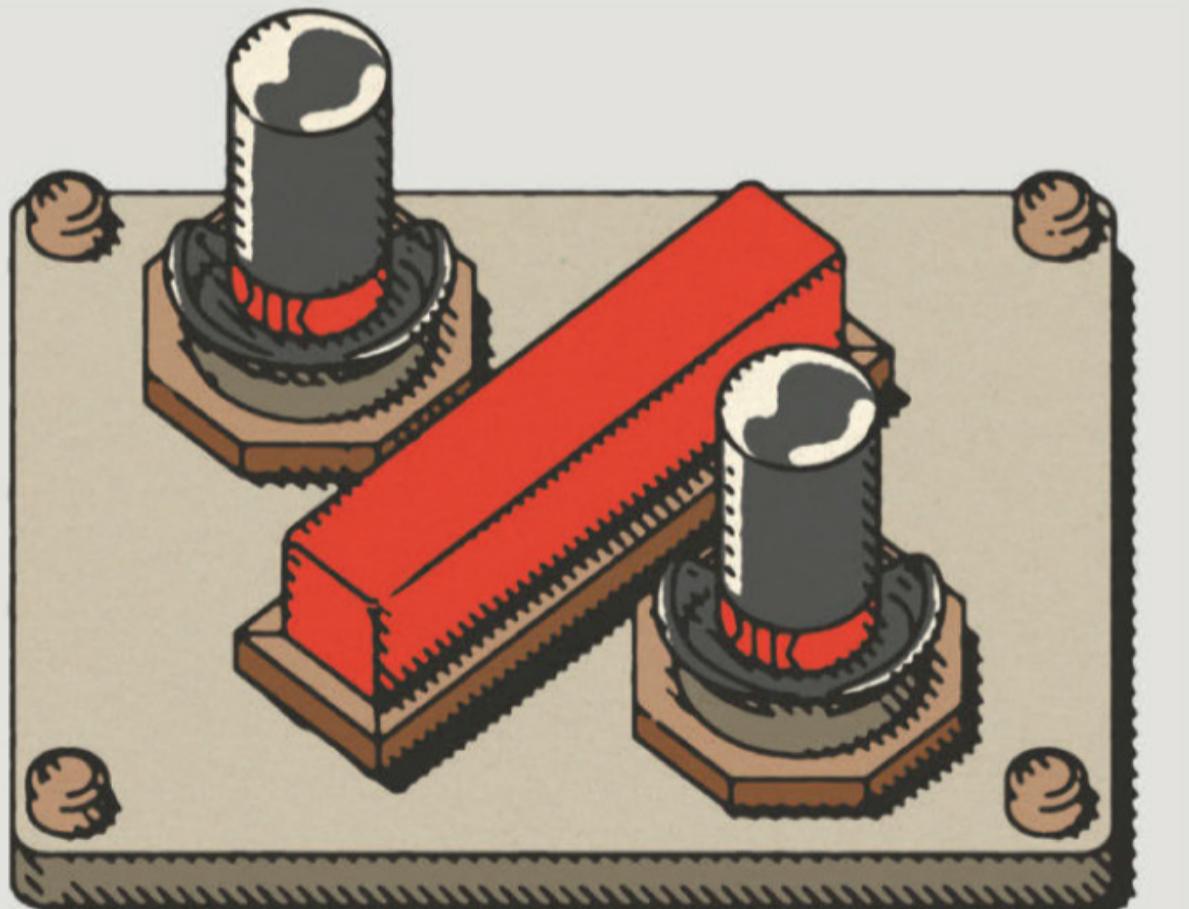
Today central banks are raising rates to fight inflation. If Mr Mian, Mr Straub and Mr Sufi are right, economies will be more sensitive to higher rates than in the past. Rates will not need to rise much to squeeze indebted households and governments, who will see big chunks of income diverted to the rising costs of servicing mortgages and bonds. But over time the

debt trap will assert itself and real interest rates will stay low.

One weakness of the framework for analysing the world economy is that in many rich countries household debt has not risen much as a percentage of GDP since the crisis of 2007–09. Even as rates fell close to zero, households repaired their balance-sheets rather than borrowing more. Governments are running up debts, but their spending is subject to the whims of politics and may not fall as interest rates rise, given the huge pressures on budgets.

There are economies in which households have been on a borrowing binge, however. One is South Korea, where the household-debt-to-GDP ratio rose from 79% in 2010 to 109% at last count. Approximately half of household debt is linked to short-term interest rates, which are rising. In a report on the economy in March, IMF staff estimated that the higher level of household debt would be enough to lop an additional 10% off spending in South Korea should rates return to around 5%, their level in 2000.

How might economies escape such a debt trap? Messrs Mian, Straub and Sufi say that only a reduction in inequality can do the trick, whether via redistribution or through structural reforms. But there is another force that might have the same effect: inflation. Unexpected inflation redistributes wealth from creditors to debtors, says Mr Straub, so long as it leads to strong wage growth for debtors, and is not just the result of newly expensive energy. Often economists see inflation as a veil—a “nominal” rather than a “real” phenomenon. But, should central banks fail to tame price rises, they will redistribute from creditors to debtors, and so might alter the fundamentals of the world economy as well.



► would otherwise have been, according to Larry Summers and Lukasz Rachel, two economists. Had the natural rate of interest been determined only by the behaviour of the private sector, it might have fallen by fully seven percentage points, into deeply negative territory. That would have created big problems for central banks, whose policy rates must follow the natural rate downwards to avoid recessions, but which run into a hard floor near zero.

Over time it is possible that some governments might spend forcefully enough and persistently enough to overcome the impact of ageing. But mobility of capital across borders means that what matters is the balance between savings and investment at a global level. In 2005 Ben Bernanke, then chairman of the Federal Reserve, hypothesised that a “global saving glut” was holding down long-term interest rates in America. Mr Bernanke was particularly struck by the accumulation of dollar reserves by governments of Asian countries including China and South Korea. They and oil exporters, which were accumulating vast sovereign-wealth funds, appeared to be financing America’s growing current-account deficit.

Today, reserve accumulation has slowed and the saving glut is less visible in current-accounts. But Mr Auclert and his co-authors predict that so-called “global imbalances” are likely to return over time, as capital flows from countries that are ageing faster to those ageing more slowly. Because America’s transition is mild relative to the rest of the world’s, it will absorb foreign capital, particularly from China, Japan and Germany. Around the middle of the century, just as those countries cease ageing and start drawing down their savings, India’s vast population will start ageing, meaning that it will become the dominant global creditor.

How much would governments need to borrow to sop up the savings tsunami? Mr Summers and Mr Rachel suggest a rule of thumb that a one-percentage-point rise in the aggregate debt-to-GDP ratio for all advanced economies raises the natural rate of interest by 3.5 hundredths of a percentage point. The rule implies that the rise in debts during the pandemic, about 12% of rich-world GDP, would have increased the natural rate of interest by about 0.4 percentage points. Indebtedness would need to rise by three times as much again just to offset the downward pressure on rates forecast for the rest of the century, let alone to reverse the downward trend of the past 30 years.

The low natural rate of interest will continue to allow many rich countries to maintain high debts. But that does not mean it would be wise for them to go on a Japanese-style borrowing binge. To begin with, the gross figures are misleading: Japan’s net debt, which accounts for the government’s financial assets, is only 172% of GDP. If every advanced economy borrowed to the same extent, then the Summers/Rachel rule of thumb suggests that the natural rate of interest would rise by about 3.3 percentage points, undoing both the 20th-century decline in rates and the forecast 21st-century fall. A more instructive comparison is with Italy, whose net debts are almost 140% of GDP, enough for markets to worry at today’s interest rates (and even with the European Central Bank prepared to buy government bonds).

Governments should, therefore, be careful how they use the fiscal space that the saving glut creates—especially when unexpected crises like the pandemic or the war in Ukraine can strike at any time. Borrowing maximally to postpone pension reform or higher taxes is risky and wasteful. And there is an even more pressing project for which the money may be needed: reaching net-zero carbon emissions. Decarbonisation will also weigh on budgets for decades. ■

Climate investment

Greenbacks for greenery

The energy transition will be expensive, but not catastrophically so

IN 1965 BRITAIN struck gas in the North Sea. The government wanted to exploit its new fuel to heat buildings. But the gas that had been found was different from “town gas”, made from oil and coal, which most boilers were designed to use. So state-owned gas boards carried out an enormous project: the conversion of 13m buildings to a new heating technology. An army of contractors was recruited and enlisted for the task. “It seems quite wrong that, after two weeks’ training, ex-bus conductors, postmen and so forth can walk in and take one’s cooker to bits,” complained one housewife. No premises could be spared: a group of workers sent to Soho, home to London’s red-light district, found they had to wait in line to enter “one of the more dubious” clubs.

The chairman of British Gas hailed the completion of the project in 1977 as perhaps the greatest the country had carried out in peacetime. Yet it looks trivial compared with the challenge Britain and others now face: to heat all homes without emitting carbon dioxide. British officials estimate that, to meet the target of net-zero emissions, 28m-29m houses need reworking. The cost in the 1960s and 1970s was about 1% of annual GDP. If climate-friendly air-source heat pumps are the dominant technology in today’s transition, the probable bill will be worth 17% of 2019’s GDP, says the Office for Budget Responsibility (OBR), the fiscal watchdog.

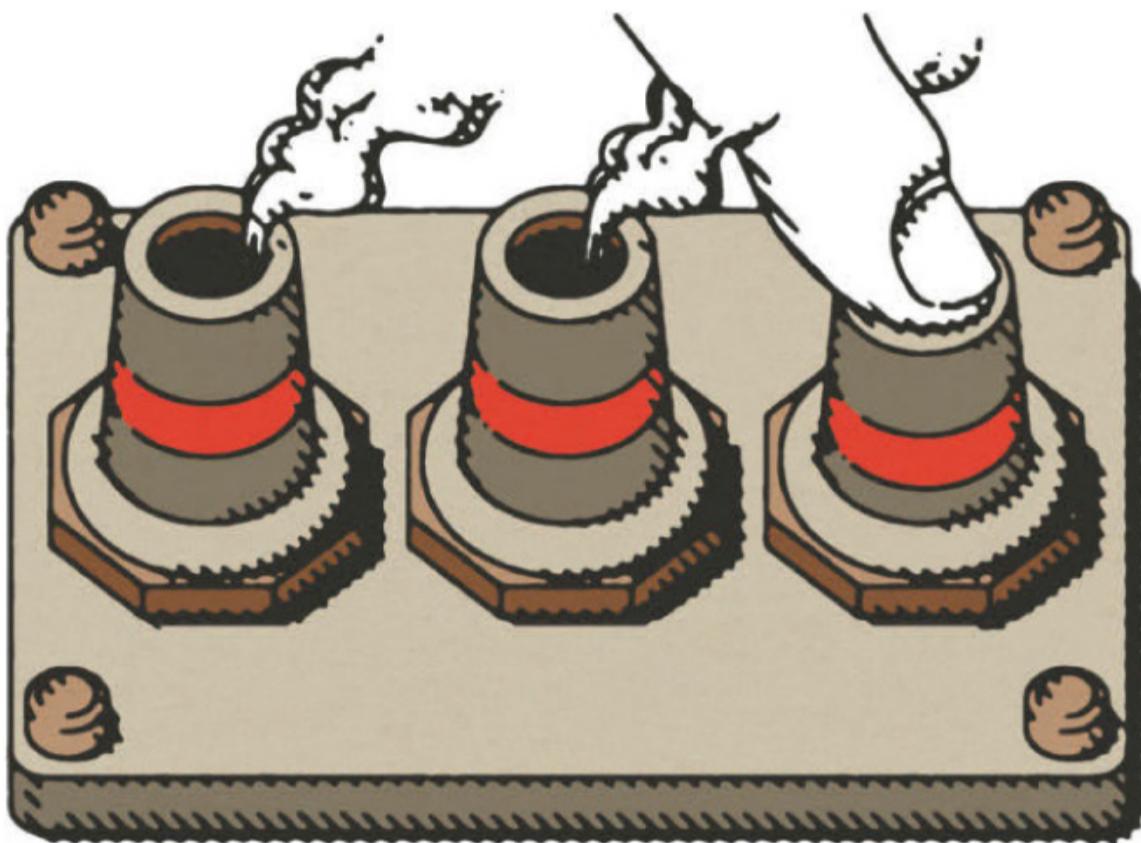
And that is only one sector. To hit the net-zero targets to which 91% of the world economy is now committed, many other transformations are necessary. Roads need ubiquitous charging-points for electric vehicles (EVs) that will replace internal-combustion engines. The technologies to make cement or fly aeroplanes cleanly but inexpensively, or to capture carbon emissions from those industries, must be found. Above all, electricity supplied to the grid must be clean—and grids must be upgraded to cope with higher demand when everything runs on electricity.

The project is thus vast and expensive. Advocates of green investment have often presented this as an advantage: big infrastructure investment would be part of a “green new deal”, funded by cheap government borrowing, that would be able to take up slack in the economy and provide a long-term return in excess of interest costs. Even in the summer of 2021, after Joe Biden had already passed a huge fiscal stimulus in America, IMF staff wrote that a green investment push could “[boost] demand and employment and [help] the recovery from the covid-19 pandemic”. More stimulus was always welcome.

Timing is everything

Yet inflation has now made clear that there is too much spending in the economy, not too little. Debt-interest costs are rising as central banks hit the brakes. The appeal of a green fiscal stimulus has dissipated. Far from using up slack, more public spending will now displace private-sector activity and further raise prices. The model for green spending is no longer the green new deal. It is Mr Biden’s Inflation Reduction Act (IRA), which contains America’s largest slug of climate-related spending but reduces the deficit slightly by raising taxes and beefing up tax enforcement.

The bad news is that the cost of the climate transition to taxpayers will be much bigger than what is provided for in the act, or indeed in existing legislation in the rest of the world. The IRA is es-►



►timated—with wide bands of uncertainty—to close only about half the gap between America's previous trajectory, through which it would reduce its carbon emissions by about 30% between 2005 and 2030, and the Biden administration's target of a 50% cut.

The good news is that green investment is still affordable, for three main reasons. First, the world is continuously replacing boilers, cars and power plants regardless of any energy transition. Incremental spending to replace them with green alternatives is much lower than the gross cost would be. The McKinsey Global Institute estimates that an annual average of 9.2% of GDP must be spent on physical assets to achieve net zero by 2050, but reckons this is an increase of only 0.9% of GDP over current plans. The IMF and the International Energy Association (IEA) similarly put the necessary incremental investment over the next decade at 0.6–0.9% of cumulative output.

The second reason is that the private sector will pick up much of the tab. Households, for example, usually buy their own boilers and cars, and in the rich world private firms are responsible for about 90% of all energy investment. The OBR's central scenario assumes that the British government will pay about a quarter of the total cost of the transition (though it cautions that the actual figure could "vary greatly"). The resulting need for public investment is about 0.4% of GDP, on average, until 2050, a sufficiently small number to allow the British government to plan to meet it from within its existing investment budget. The IMF has found that most estimates of the need for public-sector investment in the 2020s are of a similar magnitude, ranging between 0.05% and 0.45% of cumulative GDP.

Forecasts of taxpayers' share of the bill depend on whether other policies are in place to encourage the private sector to invest in green technologies. Businesses and households put money to work where the returns are greatest. They will pony up the cash for net zero only if they are incentivised to do so. A particularly important factor is the extent to which governments impose carbon prices, which tilt the scales in favour of green investment. A failure to price carbon is doubly costly: it forces the public sector to shoulder more of the burden of investment, and deprives the government of a source of income.

Philippe Aghion, an economist, and his co-authors have found

that a 10% increase in fuel prices increases by 10% a firm's likelihood of investing in green technologies. Households also respond to price signals. America, where petrol taxes have been fixed in cash terms since 1993 and a federal carbon-pricing scheme looks unlikely to pass Congress, has just extended to 2032 its tax credit for EVs as part of the IRA. In Europe, where fuel levies are higher, the number of countries offering incentives for EVs is falling, even as take-up grows. The stick of carbon pricing would make the carrot of subsidies less necessary. Using subsidies without carbon pricing "is a sure way to spend more than needed to achieve the desired goal," writes Olivier Blanchard of the Massachusetts Institute of Technology.

Fortunately, carbon pricing is expanding. Nearly a quarter of greenhouse-gas emissions are priced, a doubling in five years, helped by the launch of China's emissions-trading scheme for gas and coal power plants. Most carbon prices remain too low. But every dollar on the price makes investment in clean energy sources more attractive for the private sector.

A final factor reducing costs for the public sector is that the green transition will pay off, not just in mitigated global warming, but through greater efficiency. One big pay-off comes from EVs. Partly because they rely less on fluids than do internal-combustion engines, they require less maintenance. They are more efficient and have lower running costs. Should battery technology advance as expected, they will eventually be cheaper to buy than petrol cars. Cheaper transport will benefit the economy, boosting growth and consumers' real incomes. These benefits may not be enough to offset the costs of weaning the economy off fossil fuels. But once those costs are sunk, there will at least be a pay-off.

And it is possible that things will go better still. Technical progress is hard to predict, and economists have shown firms' green innovation to be "path-dependent": the more a firm does, the more it is likely to do in future. The history of renewable energy also suggests there is a steep learning curve, meaning that, as more is produced, costs fall rapidly because of economies of scale and learning-by-doing.

Here comes the sun

The strongest evidence for this is the collapse in the price of solar energy, which became about 90% cheaper during the 2010s, repeatedly beating forecasts. Should other green technologies follow the same pattern of large falls in cost the world may find that net zero will eventually benefit both growth and the public finances. (A big breakthrough in hydrogen fuel, for example, could mean heating many homes using the existing gas network, rather than having to install heat pumps.)

Although the economics of decarbonisation are manageable, it is the politics that are hard. Timing is everything. Moving early and gradually gives economies more time to adjust, allowing them to reap the benefits of path-dependent green investment without much disruption. A late, more chaotic transition is costlier. The OBR estimates that if Britain delays decisive action on de-

► carbonisation to the 2030s, the eventual cost of the project will raise its debt-to-GDP ratio by nearly 45 percentage points.

Then there is the challenge of ensuring that the transition happens everywhere. The rich world plus China now account for about two-thirds of annual carbon emissions. Although Africa contains nearly a fifth of the world's people, the continent is responsible for just 3% of the emissions that humans have ever put into the atmosphere. Yet by mid-century Africa's population will have grown by 75% and will be much richer than it is today. Should its per-person emissions reach the level of India (about two tonnes a year, compared with 16 in America), the continent's annual emissions will be roughly what America's are today, calculates Jack Goldstone of George Mason University. India itself will also see its population grow by nearly 20% by 2050 and, on present trends, its per-person emissions will rise.

If the world is to achieve net-zero emissions without hamstringing the economic prospects of billions of people, the rich world must help developing countries decarbonise as they grow. At the Copenhagen climate summit in 2009, rich countries duly pledged to provide \$100bn a year of public and private finance to poorer countries by 2020 to help them mitigate and adapt to climate change. The target is vaguely defined, but is clearly being missed. Meeting it is not just a diplomatic challenge, but a technical one, given the difficulty of promoting investment in poor

countries in which property rights can be insecure.

The difficulty of co-ordinating decarbonisation internationally is another argument for early investment. The sooner the rich world invests in green technologies, reducing their price, the more likely the benefits are to spill over into the developing world, allowing them to pursue greener growth. The impact of low solar prices, for example, is already visible in India, which has almost a decade early met its target of 40% non-fossil-fuel installed energy capacity by 2030. It is increasingly plausible that the country's clean energy capacity could overtake its fossil-fuel capacity within the next decade.

The world needs more such wins. But can rich countries invest enough for them? Europe's energy crisis is speeding up its energy transition. High fossil-fuel prices hurt in the short run but are comparable to a carbon tax in their effects. In 2022 Europe will install 39GW of solar power, up 44% from what was already a record in 2021, according to SolarPower Europe, a lobby group.

In normal times the argument for debt-financing of climate investments would be strong. It is more efficient to spread costs over time than pay for a green splurge with sharply higher taxes. Yet high inflation and overheating economies mean that this is no longer a good time to increase deficits. The cash available for green investment may depend on whether politicians decide to join central banks in their fight against inflation. ■

The total bill

Adding up the fiscal drag from ageing, energy and defence

IN 2006 NATO members set a target for defence spending of 2% of GDP. In 2014, after Russia annexed Crimea, they pledged to meet this target by 2024. But by 2021 most countries still fell short: averaging across western Europe, defence spending was only 1.6% of GDP. Some big countries—Germany, Italy, the Netherlands and Spain—were the worst offenders, spending just 1.3–1.5%.

After Russia's invasion of Ukraine in February, European governments once again promised to reach the target. The Netherlands now says it will hit 2% in 2025; Italy will do so by 2028. Germany says its spending will exceed the 2% target at an unspecified date. In Britain, which spent 2.2% of GDP on defence in 2021, the new prime minister Liz Truss wants to spend 3% of GDP by 2030.

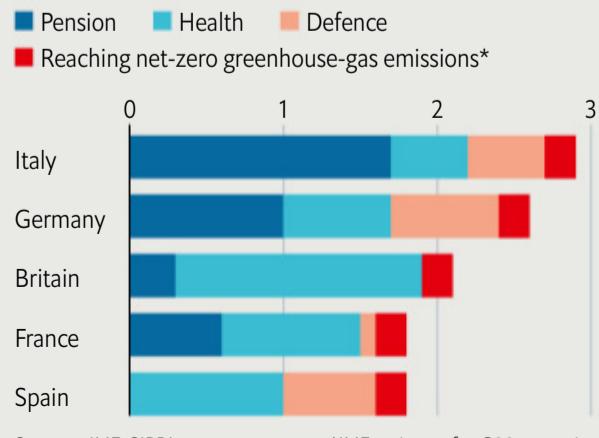
Such pledges create more long-term pressure on government budgets, on top of ageing and net zero. *The Economist* has added them all up. The big uncertainty surrounds the energy transition, for which we apply the midpoint of estimates surveyed by IMF staff: an average of 0.2% of GDP a year. This includes only the investment costs of decarbonisation, so assuming that revenues from taxing fossil fuels will be replaced as pollution falls. For forecast changes to health and

pension spending, we use IMF forecasts, which include a projection of growth in health-care costs based on historical trends.

The total extra annual fiscal squeeze from these three sources by 2030 is in the region of 2–3% of GDP. That is a manageable figure, but a painful one. In all the countries in our analysis the tax burden, as a percentage of GDP, is already at or close to its historical maximum. Funding this extra annual spending purely from higher revenues would take taxes to unprecedented levels.

The coming bill

Forecast spending, 2030
Increase on 2021 as % of GDP



The alternative of debt financing may work for a while, especially in Germany, which has the lowest debt-to-GDP ratios among big European economies. However, this is not a sustainable solution, because the fiscal pressure will last for decades. Eventually room to borrow more will be used up, even when interest rates are low. Moreover, the pressure on budgets will continue after 2030 as Europe goes on ageing.

In Italy there is not even room for manoeuvre in the near term. It already has huge net debts of nearly 140% of GDP. At an average financing cost of around 4.5% (roughly its current ten-year bond yield), inflation around 2% (the ECB's target) and economic growth around 1% (an optimistic forecast once post-pandemic catch-up is exhausted) it needs a budget surplus before interest of nearly 2% of GDP just to stop its debt growing faster than its economy. A financing cost of 5% would push the required surplus to over 2.5% of GDP.

Italy has achieved surpluses of this size before, and it is getting a boost from the European Union's recovery fund. But an additional fiscal drag of 2.9% of GDP, by our calculations, will make surpluses much harder to deliver. And on current projections Italy's median age will not peak until the 2060s.

Inflation

Long road back

The inflation problem will get better before it gets worse

IN 1978 MILTON FRIEDMAN looked back at three recessions that had struck America's economy over the preceding decade. "Each scenario has been the same," he wrote. Loose money created a boom and then inflation. An outcry against rising prices led to higher interest rates and a recession, only for rising unemployment to catch more public attention. So economic policy turned stimulatory. Just as inflation began to fall, another boom kicked off. The inflationary cycle began again.

The world economy is now in the early stages of Friedman's loop. Inflation has played havoc with central banks' credibility and crushed consumer confidence. In Europe high gas prices will cause economic turmoil this winter; consumers are more miserable even than during the financial crisis. In Asia, which seemed immune to the inflation bug, dearer oil and falling currencies have forced central banks to raise interest rates. Policymakers are now focused on a single enemy: rising prices. The issue is whether they will hold their nerve as monetary hawkishness takes its toll.

It might seem hard to believe, as Europeans don thicker jumpers and turn down thermostats, but inflation-busters are benefiting from some easy wins. The oil price is about 25% down from its peak in June, and food prices are more than 10% down. Disruptions to supply chains from the pandemic are easing: the Baltic Dry index, which measures the cost of shipping goods, has recently been lower than at any point since mid-2020. Headline inflation seems to have peaked in America. Even European energy prices have fallen. In any case they cannot keep rising at an extreme pace. If they merely plateau, that will bring inflation down, because it measures changes in prices, not their overall level.

But when the tide recedes, the beach reappears. As the energy crisis and supply-chain disruptions fade, the underlying rate of inflation will be higher than before the pandemic, for several reasons. Economic stimulus during the pandemic, totalling 10% of global GDP, has caused overheating. Eighteen months of high inflation have raised expectations for price rises, which can be self-fulfilling. And in many countries tight labour markets threaten to inject into wages a momentum of their own.

So long as energy chaos reigns, underlying inflation is hard to gauge. One method is to look at "core" prices excluding energy and food. Yet energy is an input for almost everything else, from restaurant meals on cold winter nights to the ammonia used in fertilisers. Energy prices thus infect even core prices as businesses pass through higher costs. To judge underlying inflation it is better to look at how fast wages are growing relative to workers' productivity.

Goldman Sachs, a bank, produces composite measures of annual wage growth in 12 countries and the euro zone. *The Economist* has compared those figures—and other data for South Korea—with average annual productivity growth since 2000. The gap between the two is largest in the

Anglosphere: in America, Britain, Canada and New Zealand, it ranges from 3.8% to 4.6%. Next comes Europe: in the euro zone the average gap is 2.4% (though it is higher in some countries). Last come Asian economies. Trend inflation in both Japan and South Korea is little over 1% by this measure.

Such figures may seem reassuring when compared with today's sky-high headline rates of inflation. Yet they may still be worrying when considered in light of the "sacrifice ratio", the amount of pain that it takes to purge an economy of an inflation problem. It is a subject economists have largely ignored for the past three decades because inflation has been low.

In a blog post in June Stephen Cecchetti and Kermit Schoenholtz surveyed ten American disinflationary episodes since the 1950s. A median fall in core inflation of two percentage points was achieved over a 30-month period only with a rise in unemployment of 3.6 percentage points, corresponding today to nearly 6m Americans losing their jobs. Jason Furman of Harvard University suggests that unemployment might need to rise by five percentage points for a year to bring inflation down a single percentage point. In a recent speech Isabel Schnabel, a member of the European Central Bank's executive board, warned that a weaker relationship between unemployment and inflation—a phenomenon that had made central bankers complacent about the risks of overheating—could now make inflation harder to bring down.

Counting the costs

Two particular uncertainties determine how painful it could be in America, as set out by Laurence Ball of Johns Hopkins University and Daniel Leigh and Prachi Mishra of the IMF in a recent paper. One is how much inflation expectations drift upward as inflation continues to persist above the Fed's 2% target. The other is whether the labour market can cool off not by shedding jobs but by shedding job vacancies, which have been extraordinarily high during the recovery from covid-19.

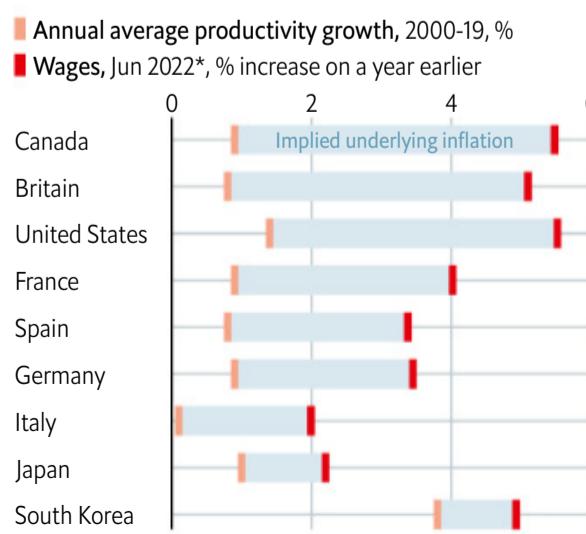
In June the Fed projected that unemployment would rise only marginally from 3.7% today to 4.1% by 2024. Plugging this into their model, Mr Ball and his colleagues find that the rate of underlying inflation by December 2024 varies from 2.7% to 8.8%, depending on assumptions about expectations and vacancies. It takes a bigger rise in unemployment to narrow the range of inflation outcomes and centre it near the 2% target. The authors find that a scenario suggested by Lawrence Summers of Harvard University, in which unemployment rises to 7.5% and stays there for two years, leads to inflation of 1.6-3.2% by the end of 2024.

Will policymakers tolerate such a sacrifice? The costs of disinflation can be high but not controlling inflation would mean "far greater pain", Jerome Powell, chairman of the Federal Reserve, told fellow central bankers at this year's jamboree in Jackson Hole, Wyoming. Andrew Bailey, governor of the Bank of England, promises to bring inflation to 2% "no ifs, no buts".

Even where underlying inflation has yet to take off, central bankers have acted. The Bank of Korea has raised interest rates from a low of 0.5% in mid-2020 to 2.5% in August. In an interview with *The Economist*, Rhee Chang-yong, the bank's governor, said that there is no need to generate a recession "on purpose"—his objective is mainly to stop imported inflation from setting off a wage-price spiral. The recent global economic slowdown and falling energy prices had made inflation less likely to

I spy a spiral

Estimated underlying inflation, %





► rise further. But if it did move up to American levels, the bank would think “very hard” about the trade-off.

Central bankers seem prepared for possible discomfort. But the inflationary risk no longer stems from monetary policy that is too loose but from politicians in charge of fiscal policy. As inflation rises even governments previously committed to budget discipline are spending freely to help households and firms cope with higher energy and food prices. In April the IMF counted 94 countries that had taken such measures in 2022. Liz Truss, Britain’s prime minister, has both capped energy bills and slashed taxes. Mr Rhee may be committed to fighting inflation but the South Korean government, though promising to follow fiscal rules and reduce spending, plans to cut corporate and income taxes.

It is not just that looser fiscal policy stimulates the economy, boosting inflation in the short term. Ultimately, the power of central banks depends on politicians pursuing sound fiscal policies that stabilise debt as a share of GDP. Higher interest rates are supposed to help produce modest fiscal austerity, because to maintain stable debts while paying more to borrow, governments must cut spending or raise taxes. In 1981 Thomas Sargent and Neil Wallace showed, in a paper titled “Some Unpleasant Monetarist Arithmetic”, that without this fiscal backup, monetary policy eventually loses traction. Higher interest rates become inflationary, not disinflationary, because they simply lead governments to borrow more to pay rising debt-service costs.

The risk of monetary unmooring is greater the more public debt rises, because interest rates become more important to budget deficits. Even before the pandemic, some economists were getting nervous about a potential conflict between monetary and fiscal policies. David Andolfatto, now of the University of Miami,

and Andrew Spewak of the St Louis Fed warned in 2019 that, in part because of Donald Trump’s deficit-busting tax cuts, America could face “the perfect inflation storm” in which “it is not entirely clear what the Federal Reserve might do”. Those worries have since grown. In September Christine Lagarde, the ECB’s president, warned that “monetary and fiscal policy play a complementary role in fighting price pressures” and that they “must work hand in hand and not contradict each other”.

A growing number of economists agree. In a paper presented at Jackson Hole, Francesco Bianchi of Johns Hopkins University and Leonardo Melosi of the Federal Reserve Bank of Chicago revisit America’s disinflation under Paul Volcker in the 1980s and argue that it was “the result of changes in both monetary and fiscal policy”. Although Ronald Reagan cut taxes in August 1981, a series of deficit-reducing measures followed over the rest of the decade, and Reagan’s hawkish rhetoric contributed to a change in the fiscal regime. It was only once policymakers firmly established fiscal consolidation that inflation settled at low levels. Mr Bianchi and Mr Melosi argue that without greater backup from fiscal policy, central banks risk “fiscal stagflation”, in which higher interest rates kill short-term growth but, owing to the lack of budgetary backing, prove unable to bring inflation down.

How plausible is it that politicians will co-operate with central bankers? As the world again enters the phase of Friedman’s loop when the public worries about a slowing economy, they may prefer to dole out cash, not add to the pain. They may not even mind much if this stops inflation falling back to 2%, because some extra inflation could make budgeting easier. Higher prices erode the real value of long-term government bonds. There is a windfall from transitioning to a permanently higher inflation rate which investors did not price in at the time the bonds were sold. It is bigger the more long-term debt a country has issued.

The Economist has made a rough calculation of the pay-off to governments in large economies if they shifted from trend inflation of 2% to 4%. We take the weighted average maturity of a country’s bonds, excluding central-bank holdings that are part of the public sector. We then calculate how much the present value of a zero-coupon bond of that maturity would fall on account of higher inflation. In most cases, it is enough to reduce the value of public debt by around 10%. As a percentage of GDP the windfall ranges from 7% in America, whose debts are of a fairly short maturity, to 21% in Japan, whose debts are enormous. Britain rakes in 14% of GDP, thanks to an unusually high share of long-dated debt (though it also has a large number of inflation-linked bonds whose value would rise). The one-time gains are of a comparable magnitude to the fiscal costs of the pandemic—a pay-off that is high because public debts are so large.

The power of inflation to erode debts is why economists are so particular about central bankers’ institutional independence. They worry about “fiscal dominance”, whereby governments put political pressure on their central banks in order to keep rates low. There was plenty of this going on as inflation took off in the 1960s:

Lyndon Johnson tried to bully William McChesney Martin, the Fed chairman, by driving him around his Texas ranch at breakneck speed.

The trouble is that even fiercely independent central banks cannot force politicians to keep their budgets in order. Big deficits can, in effect, lead to fiscal dominance at arms’ length. It is this threat that hangs over the credibility of promises to bring inflation down—but which might yet produce a beneficent change in the world’s macroeconomic regime. ■

The power of central banks depends on politicians pursuing sound fiscal policies

Inflation targeting

The end of 2%

Whether by choice or by accident, policymakers are likely to jettison their 2% inflation targets

THE LAST time rich economies conquered inflation it ushered in a decades-long era known as the “great moderation”. From the mid-1980s to 2007 growth was steady, inflation was low and economists celebrated their own “end of history”: the triumph of inflation-targeting technocracy over the naivety of 1970s policymaking. The economy was steered by a simple division of labour. Central banks would use monetary policy to keep inflation on target—typically at 2%—while governments would keep debts under control and focus on supply-side reforms.

This stability was shattered by the financial crisis. The 15 years since have exposed flaws in the macroeconomic regime. When interest rates fell to zero, central banks could not easily cut them further, making recovery from the crash slow and painful. When the pandemic struck, policymakers feared a repeat and so reached for alternatives: an enormous expansion of government spending and quantitative easing (QE), the buying of public debt with newly created money, whose full effects were poorly understood. The experiment went wrong, particularly in America. Inflation returned with a vengeance, and has since been worsened by an energy crisis—the response to which in Europe has been another round of government spending on a vast scale.

Today, as the balance of economic power tilts from technocrats towards politicians, it is unclear whether inflation can be brought back to the 2% target. Central bankers are keen to follow the path of the 1980s, imposing growth slowdowns—and, if necessary, recessions—to reach their goal. But the enormous support for households and businesses during the pandemic and the energy crisis has fed expectations that downturns will be met by government handouts, not welcomed as a cure for inflation. Although voters may be angry about the rising cost of living, they will lament higher unemployment once it hits. And if the energy crisis abates inflation will fall from today’s sky-high rates to a level that will still be above 2%, but may seem more politically tolerable, in part because rising prices will be matched by rising wages.

The good news is that out of crisis springs opportunity: to fix a fundamental problem with the system. Interest rates have fallen close to their zero lower bound in part because societies have aged, creating a global glut of saving and a dearth of investment opportunities. These conditions determine the real (ie, inflation-adjusted) rate of interest in the long term, and are not going away. Yet for any given real rate, higher inflation raises the nominal rate that can be set by central banks. As a result, long before the pandemic, many economists were arguing in favour of a modest increase in the inflation target, to 3% or 4%, to get rates away from zero and build up monetary-policy firepower.

Before 2021 the idea seemed distant and academic. Inflation was too low; it would be naive to aim higher. Today, a change of target would be simple to make. Policymakers should reduce inflation to 4%, say, and then stop. Though monetary policy would be more doveish in the short term, rates would eventually settle higher than they would have been under a 2% target. Central banks would get their mojo back.

Is such a switch viable? In the short term there would be costs and benefits. There would be no need for a deep and unpopular disinflationary purge, reducing the danger of conflict between

central banks and politicians. Governments would not need to worry that spending on security or on long-term climate investment might interfere with central banks’ desire to squeeze economies. There would even be a budgetary windfall. Moving from a target of 2% to 4% would inflate away some long-term public debt that, on average across five big economies, would be roughly equivalent to the rise in public debt during the pandemic.

The big downside would be a knock to the credibility of policymakers’ promises. Having been burned once, buyers of long-term government bonds might fear the inflation target could be raised again, adding a risk-premium to bond yields and creating long-term uncertainty. Inflation of 3-4% would be that little bit more noticeable than 2%, imposing a psychological burden on the public and creating some friction throughout the economy. There would be arbitrary redistribution from creditors to debtors.

Yet this trade-off is minor set against the benefits of escaping the zero lower bound and returning to a system in which interest rates play the main role in fighting recessions. Milder downturns are an enormous economic prize. If monetary policy had had more firepower over the past 15 years, the slump of the 2010s would have been shallower. The mistakes that led to the post-pandemic overheating would have been less likely. Governments would have been less indebted. There could have been less QE.

One problem would remain. Just as in the old system, the power of central banks to control inflation would require governments to keep debts stable as a share of the economy in the long term—a commitment that is now under threat. The crises of recent years will be followed by more spending on pensions and health care as societies age, as well as a mass decarbonisation project that will cost more the longer it is delayed. Politicians of all stripes fear the prospect of cutting spending on elderly voters more than they fear deficits.

It would therefore be wise to pair any change to the inflation target with long-term reforms to control pension and health-care spending, to put public finances on a more stable footing. The one-time fiscal windfall from the new regime would provide some breathing space. But adjusting the inflation target must not become the go-to escape valve whenever budgets are tight.

There are broader options for deeper reform. A higher inflation target could be embedded into an overall goal for the level of nominal GDP, the total amount of cash growth in the economy, a gauge that is better suited for a world of supply-side shocks like the energy crisis. What has become clear is that inflation held to 2% is ill-suited to 21st-century macroeconomic conditions. And if the target is not changed, there is a great risk that it will simply be missed. Better to construct a new macroeconomic regime carefully than just to wait for the old one to collapse. ■

ACKNOWLEDGMENTS A list of acknowledgments and sources is included in the online version of this special report

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War in the Horn

Land of dashed hope

Eritrea's call-up of reservists makes it harder to end Ethiopia's senseless civil war

FOR YEARS he counted himself lucky. Tekle (whose name we have changed for his safety) had gone through his training in the Eritrean army and learned how to handle a gun. Then he was released, unlike most of his classmates who had been conscripted for indefinite national service in the army or in virtual slavery for the state. Many others fled the country. Tekle stayed put, one of the few people allowed to run a private business in Eritrea's capital, Asmara. He kept his head down.

But Tekle's luck ran out in September when Eritrea's dictator, Issaias Afwerki, called up reservists aged 40-65 to fight against Tigray, a rebel region of next-door Ethiopia. Probably tens of thousands have already been sent into battle there. "Nobody wants to fight," he says in resignation. "But life is not fair sometimes."

Eritrea's mobilisation marks a new chapter in Ethiopia's bloody civil war, now about to enter its third year. It dashes hopes of a peace deal between the Tigrayan People's Liberation Front (TPLF), which

runs Tigray, and Abiy Ahmed, Ethiopia's prime minister. The needless conflict, which pits the TPLF's self-styled Tigray Defence Force (TDF) against Ethiopian federal forces backed by allied militias and Eritrean troops, has taken thousands of lives since a five-month truce ended in August. Millions of civilians in Tigray are under blockade. Hundreds of thousands may be starving. Almost no food or medicine has come in since the fighting resumed.

It is hard to gauge the full extent of the suffering or to assess independently what is happening on the front, because the government has blocked telecommunications across Tigray and prevents journalists

from travelling there. Yet it is clear that Eritrean troops are fighting alongside Ethiopian ones in several places. The most significant of these is in the north-west of Tigray near the towns of Sheraro and Dedebeit, the symbolic home of the TPLF, which began there as a guerrilla movement in the 1970s (see map on next page). Eritrean forces have also been shelling Tigray at various other points and have reportedly tried to attack Tigray's capital, Mekelle, from the east via the Afar region.

The TDF claims to have inflicted huge losses on Ethiopian forces at Dedebeit and to have halted an offensive towards the strategic town of Shire. "We're starting to see the light at the end of the tunnel," says Mulugeta Gebriwot, a former TPLF leader currently in Mekelle. "They're losing division after division on the north-western front." On September 28th the TDF also claimed to have wiped out five mechanised Eritrean divisions in Afar. This seems unlikely since Eritrea has not got much armour—unless it has recently been resupplied from abroad.

The TDF's claims are also hard to square with its recent setbacks. Eritrean troops have captured Sheraro, though Tigrayan sources say they are planning a counter-attack. On October 3rd the TDF said it was retreating from the Amhara region to free up troops needed elsewhere. Overall, the TDF appears to be holding its ground on most fronts, reckons a Western diplomat. "But I ➤

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▶ can't imagine they're not going to face supply issues soon," he added.

The Tigrayans hope to bleed Ethiopia dry. "The war will stop when they don't have numbers to fight," says Mulugeta. Yet even without the thousands of conscripts being sent from Eritrea by Issaias, Ethiopia has no shortage of potential troops. After all, it has a population of about 110m people to Tigray's 6m. It has better equipment, including armed drones, which it uses to attack TDF supplies and heavy weapons (as well as civilians, from time to time). And it has allies, such as Turkey and the United Arab Emirates, which may be willing to resupply and re-equip it.

"We are very bullish," says an official in Ethiopia's ruling party in Addis Ababa, Ethiopia's capital. At secret peace talks in Djibouti in September Ethiopia rejected a TPLF offer of a "cessation of hostilities" in exchange for lifting the blockade and returning land. The government's plan, suggests the official, is rather to capture Mekelle and install a friendly administration there—an ominous prospect, given that its previous failed attempt to do this involved large-scale looting, murder and rape.

Tigray's gambit seems to be to try to push across to the border with Sudan by recapturing territory it lost at the start of the war. "We will definitely take western Tigray," says Getachew Reda, the TPLF's spokesman. Doing so would open up a supply route to ease the blockade and possibly force Abiy back to the negotiating table.

Much would then depend on how Sudan responds. Since the Sudanese junta is not on good terms with Abiy's government, the Sudanese army has been providing covert assistance to Tigray, for instance by letting a TDF unit organise and train inside Sudan. But overt intervention by Sudan could draw it into confrontation with both Ethiopia, which Sudan accuses of wanting to grab some of its territory, and Eritrea, which has a history of supporting Sudanese rebel groups. "The question is: will the Sudanese actively engage?" asks a European diplomat.

Abiy's government has agreed to meet



the TPLF in peace talks organised by the African Union. Both ought to want a deal. Tigray is starving. Ethiopia's economy is tanking and public support for the war is dwindling. Inflation is close to 30% and sources close to the central bank reckon that Ethiopia's foreign reserves cover just three weeks' worth of imports. "Business is slowing," sighs a bank manager in Addis Ababa. "The TPLF and the government need to stop the war and negotiate."

Yet Eritrea's Issaias, who was not invited to the talks, may try to spoil any peace deal before it is reached, since he sees the TPLF as a threat to his own rule. Moreover, his paranoia is kindled by the TPLF's hints that it may indeed march on Asmara to topple him. "As long as both Issaias and the TPLF are in power, the war will not stop," says the hapless Tekle, now miserably waiting to be ordered to the front. ■

Lesotho

Let's get this party started

JOHANNESBURG

Why political parties are a growth industry in the tiny enclave

LESOTHO IS A gold mine for pub-quiz crafters. It has the highest lowest point of any country in the world, and, as it happens, the highest pub in Africa. It is one of just three countries entirely encircled by another—in its case, South Africa. (San Marino and Vatican City are the others.)

Less whimsically, Lesotho's economy is nearly a tenth smaller than in 2016 and its 2.2m people are poorer than the average sub-Saharan African. The more than two-thirds who live off the land face erratic rains and climate change. Factories built by Taiwanese and Chinese firms in the 1990s to make clothes for Americans are shedding jobs. A huge dam to supply its neighbour with water is delayed.

There is one booming sector, though: political parties. "It is one of the only growth areas," notes John Aerni-Flessner of Michigan State University. Some 65 were registered for elections on October 7th, up from 27 in 2017. Scholars reckon that in Lesotho the number of parties, relative to population, is among the world's highest.

One reason is that barriers to entry are low. To set up a party takes just 500 signatures. Under Lesotho's version of proportional representation, a party does not have to reach a minimum share of the vote to be granted seats in parliament. In any case, candidates have few ideological or ethnic differences. Once in parliament there are no rules against MPs joining other parties or forming new ones. Co-

alition governments are ephemeral. Political entrepreneurs thus have every incentive to found their own parties. In 2015 one got a mere 1,900 votes and its leader ended up in the cabinet.

What makes a political career attractive in the first place is the lack of economic alternatives, besides looking for work in South Africa. "The only available means of survival is to be close to the state," says Motlamelle Kapa of the National University of Lesotho (NUL). Public spending is more than 50% of GDP, a higher share than elsewhere in southern Africa.

Much of it is wasted. "Corruption is rampant in Lesotho," says Mamello Rakolobe, also of the NUL. Local reporters highlight dodgy schemes. There are allegations that MPs illegally occupied land they sold to cannabis farms and that a minister was involved in a plot to pass off imported kangaroo meat as beef.

The battles for spoils mean that politics in Lesotho is rarely dull. After elections in 1998 the prime minister asked Botswana and South Africa to send troops to quell riots. It did not go well. Much of the capital, Maseru, was burned or looted. In 2014 the army botched a coup against Thomas Thabane, then the prime minister. In 2020, after a spell out of office, he quit after his third wife was accused of killing one of her predecessors. A year later he was charged, too. (In July all charges were dropped.) Mr Thabane's successor, Moeketsi Majoro, will step down after the elections because he has lost the support of his party.

Some Basotho (as the locals are known) have tried to overhaul their politics. In 2019, pressed by South Africa and local activists, Lesotho set up the National Reforms Authority (NRA), which proposed fixes to structural problems. Parliament was meant to pass a bumper bill based on its ideas before the election. But politicians had other plans. They stalled for so long that the session expired. Under renewed pressure from donors, Mr Majoro declared a state of emergency and recalled parliament. MPs came back and passed an increase in their pensions. A court then ruled the state of emergency unlawful, leaving the NRA's reforms in the cold.

In a recent poll by Afrobarometer, a research group, 86% of Basotho said the country was going in the wrong direction. More approved of one-party rule (55%) or rule by the king (69%), currently a figure-head, than the status quo (49%). Just 26% said they were satisfied with their democracy—half the average for democracies in sub-Saharan Africa. Elsewhere in Africa, says Khabele Matlosa, an academic, demand for democracy outstrips supply. "Lesotho is the only country where supply is higher than demand." There may be an abundance of political choices for Basotho voters. But not one of them is appealing. ■

The Sahel

Coup upon coup

ABUJA

Burkina Faso's soldiers stage their second putsch this year

AT FIRST GLANCE the images of soldiers in a television studio on September 30th, some of them masked and bristling with guns, were almost indistinguishable from those broadcast in Burkina Faso in January, when the army overthrew Roch Kaboré, the elected president. Yet this was a different coup. Eight months ago the leader of the first Burkinabé putsch of 2022, Lieutenant-Colonel Paul-Henri Sandogo Damiba, sought to justify it by saying that the government was failing to defeat jihadists who had overrun much of the country. This time Captain Ibrahim Traoré used much the same reasoning.

Burkina Faso is, indeed, struggling badly in its fight against jihadists loosely affiliated to al-Qaeda and Islamic State. By mid-September over 3,100 people had been killed in the fighting this year, a third more than in all of last year. Nearly 2m people have been forced from their homes overall. Yet the two coups seem to be setting Burkina Faso on a similar path to that of its neighbour, Mali, which is teetering on the edge of chaos and is shunned by others in the region after coups in 2020 and 2021.

Colonel Damiba, an experienced officer, had raised expectations that he could make the country safer. Instead, the army has floundered. Soldiers complain of inadequate kit and support. Jama'at Nasr al-Islam wal Muslimin (JNIM), an al-Qaeda offshoot, controls large swathes of territory, including towns such as Solenzo in western Burkina Faso, says Héni Nsaibia of Menastream, a risk consultancy. Perhaps reflecting the army's divisions, on September 12th Colonel Damiba sacked his defence minister and took the role himself. Two weeks later a 150-truck convoy carrying supplies was wiped out by jihadists.

During the coup troops surged onto the streets of Ouagadougou, the capital, firing their weapons, even as the army was supposed to be conducting a big anti-jihadist operation. Soldiers who spend their time scheming presumably have little left for stopping terrorists.

The coup is likely to deepen Burkina Faso's isolation from democratic neighbours such as Ivory Coast and Niger, whose help the country desperately needs to police its porous borders. Colonel Damiba had agreed only in July with the Economic Community of West African States (ECOWAS), a regional bloc, to return Burkina Faso to civilian rule in March 2024. That

deadline will surely be missed.

The latest putschists tried to justify their act by lambasting "red tape"—hardly a reason to storm the national broadcaster. They also claimed Colonel Damiba had failed to bring security. Yet eight months is barely enough time to organise a wedding, let alone end an insurgency. This was Burkina Faso's 11th coup or attempted coup since 1946. Few have brought stability.

The coup raises questions over the future of Burkina Faso's military co-operation with France, which has a special-forces base on the edge of Ouagadougou and worked closely with Colonel Damiba. After the coup, protesters attacked the French embassy amid accusations that France was harbouring the colonel, who appeared in Togo days later. Captain Traoré may well turn from France to Russia (he says he will call in any power that is "will-

ing to help"). Some putschist soldiers waved Russian flags. The captain should think twice. In Mali, where Russian mercenaries from Wagner Group have replaced French forces, security has grown worse. Russian gunmen have been accused of involvement in atrocities.

Before the coup, Colonel Damiba was trying to hold peace talks with jihadist groups, with the aim of demobilising rebel fighters. Captain Traoré emphasises fighting over talking: he thinks the army should be reorganised for "counter-offensives". He criticised the "political adventures" of his predecessor, whose "risky choices" had weakened Burkina Faso's security system.

ECOWAS declared the coup "inopportune". More candidly put, it is the latest grim sign that jihadists are winning both on and off the battlefield in the Sahel, and that Burkinabés will continue to suffer. ■

**Lebanon's environment**

Blue-sky blues

BEIRUT

The economic crisis is wrecking the benighted country's environment, too

NOSTALGIA IS POWERFUL in Lebanon, a country whose population is dwarfed by its diaspora. Ask Lebanese expats to describe home and they may offer sweet memories: the scent of jasmine and cedars, of coffee spiced with cardamom and of *manaeesh* (flatbreads) fresh from the oven; the sound of Fairouz, a beloved *chanteresse*, warbling from cafés and car radios.

Three years into an economic crisis, though, the defining sensory experience of Lebanon is the smelly, noisy diesel generator. The machines run at all hours, providing power that the state cannot. The air takes an acrid tinge; their roar keeps peo-

ple awake at night. And they are perhaps the most telling sign of how economic collapse is harming Lebanon's environment.

GDP has shrunk by more than half, from \$52bn in 2019 to \$22bn in 2021. Though still officially pegged at 1,500 Lebanese pounds to the dollar, the currency actually trades at around 38,000; the finance ministry says it will soon adjust the official rate. Annual inflation has been above 100% for the past 26 months in a row. Most banks are bankrupt and allow depositors to withdraw only pocket money every month.

Public services have ground to a halt. Ministries have run out of paper and ink. ►

► Many civil servants no longer show up for work: getting there costs almost as much as their salaries. One research group estimates that the average teacher earns just \$3 a month after commuting costs.

Desperate people are increasingly trying to flee across the Mediterranean. Last month a boat packed with migrants capsized soon after it set sail from northern Lebanon. At least 100 bodies, many of them Lebanese, were washed ashore in neighbouring Syria.

For those who remain, economic crisis is causing environmental catastrophe as well. Start with the air. Even in better times Lebanon did not provide round-the-clock electricity. Citizens used diesel generators to fill the gaps—three hours a day in the capital, longer elsewhere. This is an especially dirty way to generate power. A study conducted in 2012 in Hamra, a neighbourhood in west Beirut, found that the level of airborne carcinogens jumped by 60% during the hours of generator use.

Today, with barely any fuel to run power plants, the situation has reversed. The state provides at best two hours of power. Generators roar around the clock, in car parks and garages and wherever else they can be stashed. Sometimes they catch fire from overuse. Many buildings have scheduled “rest” hours to allow for cooling and maintenance; a few have backup generators for their backup generators.

They are spewing loads of cancer-causing chemicals into the air. Researchers at the American University of Beirut estimate that the level of toxic emissions has jumped three-fold since before the crisis. They think Lebanon's incessant generator use will mean an extra 550 cancer patients and 3,000 cases of chronic obstructive pulmonary disease each year.

Power plants are getting dirtier, too. One of them, Zouk, sits close to a populated area, its smokestacks looming over nearby beach clubs. As it was running out of fuel, the authorities decided to load a shipment of heavy fuel oil that had been in storage. When it arrived, they deemed it too dirty and viscous to use but, with no alternative, they still loaded it into the plant.

Water has become poisonous, too. Lebanon's infrastructure was a mess before the crisis. Many homes were either not connected to the grid or suffered regular outages. So they relied on lorries to supply water for bathing and washing; those who could afford it bought bottled water to drink. Fewer people can afford anything now. UNICEF, the UN children's fund, says the price of trucked water has increased six-fold since 2019.

With little money for maintenance and little electricity to run treatment plants, what water does arrive is often polluted. Hepatitis A, commonly spread by infected faeces, is rife. In the first half of the year au-

thorities logged 555 cases, more than usual. The health ministry blamed collapsing infrastructure: sewage seeps into the water people drink. The health service is ill-equipped to handle these consequences. Hundreds of doctors and nurses have emigrated. Hospitals and chemists are short of medicine, especially cancer drugs, which many patients cannot afford anyway.

Lebanon aims to produce 30% of its electricity from renewables by 2030. Some joke the country will get there much faster: “We'll be the world's first zero-emissions country when we have no fuel,” quips an economist. Stand on a balcony and gaze

out over Beirut's skyline, and solar panels seem to be everywhere. Engineers who install them have one of the few booming businesses in Lebanon—although, at around \$3,000 for a five-amp system, not many people can afford them.

In any case, regulations barely exist. Many solar systems are put in on the cheap. Equipment is imported, sometimes from dodgy suppliers. Installers are not always properly trained. There are fears that shoddy wiring will start fires or that winter storms will blow solar panels off rooftops. For a failed state mired in economic crisis, even the sun has a dark side. ■

Iran

A protest song rocks a theocracy

“Baraye” lists 28 reasons why clerical rule is uncool

THE PROTESTS against the shah of Iran were in their infancy in the autumn of 1978 when Mohammad-Reza Shahjarian, a famous singer, stirred the hearts of millions with a song called “Jaleh Khoon Shod” (“The dew turned to blood”). It became an anthem of the revolution that soon toppled the monarch. “Bring down the reign of madness,” he crooned.

Nowadays a new chant is catching on. Shervin Hajipour's song, “Baraye”, meaning “for”, is no more than a string of tweets. Inspired by the death of an “improperly veiled” 22-year-old Kurdish woman in the custody of the religious police three weeks ago, each tweet gives a reason why people should rebel—“for dancing in the streets”, “for our fear when kissing”, “for my sister, for your sister, for our sisters”.

The songster chants a litany of 28 grievances, ranging from the degradation of Iran's environment, to poverty and

repression. In essence, his song is a cry for Iran to become a normal country.

Mr Hajipour puts the blame for Iran's ills squarely on the clerics. “For all their meaningless slogans,” he laments. “For the girl who wishes she'd been born a boy.” His lyrics chime with a society, long alienated from theocratic rule, that has become increasingly secular.

Few had heard of Mr Hajipour before. He studied economics at a provincial university on the Caspian Sea. By the time of his arrest on September 29th, less than 48 hours after he had put his song on Instagram, it had been heard 40m times. His jailers made him remove it but it was already beyond their control.

Women sing it in the face of riot police who come to club them. Schoolgirls chant it in classrooms and write its lyrics on their whiteboards. Commuters play it on their car stereos in the morning rush hour and blare it out through the night from their housing estates after work. Iranian exiles sing it as they march through the streets of cities in Europe and elsewhere.

Beatings, arrests and shootings have failed to silence the anthem. It has helped turn the anger that swelled at the excesses of the morality police into a nationwide demand for regime change. Since the reopening of universities on October 1st, campuses have also resounded to cries of “death to the dictator”, often led by women.

The authorities seem to be dithering, as they did in the last months of the shah. They have jailed hundreds yet have freed Mr Hajipour on bail. Meanwhile, his song fills the campuses, streets and airwaves. And after four decades of mandatory veiling, women are still defiantly walking bareheaded past the police.



For women, life, freedom



German immigration

Willkommen

BERLIN

There are not enough Germans to do the jobs Germany needs

PERHAPS FRIEDERICH MERZ thought he was being clever. The head of Germany's main opposition party recently claimed on television that many of the 1m Ukrainians who flooded into Germany this year came not as refugees but as what he called "social tourists", to take advantage of government benefits. He should have known better. Even his own Christian Democrats (CDU) said their leader had overstepped the mark. He was forced to apologise.

But this was not just a slip of political judgment. Whether Mr Merz likes it or not, Germany needs immigrants. It needs them urgently. Even as Russia's energy squeeze pushes Europe's largest economy towards recession, an acute labour shortage looms. A pair of surveys in the second quarter of this year illustrate the trend. The Institute for Employment Research, a government agency, estimated job vacancies in Germany at a record 1.93m, 66% more than last year. Meanwhile IFO, a think-tank in Munich, found that 49.7% of German companies cannot secure enough skilled workers, up from 30% in 2019 and the highest

level since the surveys started in 2009.

The surge will not be short-lived, says Herbert Brücker of Humboldt University in Berlin. Without changes to participation rates, retirement dates, or immigration, Germany's workforce is set to shrink by 15m-16m by 2060. "We have never had such a situation since the early 1970s," says Mr Brücker, noting that raising the retirement age or bringing more women into the workforce would do little to reverse the problem. "Assuming we want instead to keep employment stable, and to keep the dependency ratio down, the only answer is more immigration."

The current left-of-centre coalition recognises the challenge. It has floated the idea of creating a Canadian-style points

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system to assess immigrants, easing rules on professional qualifications, and letting skilled immigrants hunt for jobs in Germany rather than insist they seal job contracts first. But none of these changes has yet been made. Nor is it clear that tinkering with rules designed largely to keep non-Europeans out and to prevent a replay of the wave of Syrian refugees in 2015 that raised fears of *Überfremdung* (getting overwhelmed by foreigners) can produce the volume of newcomers actually needed.

Germany is not the only rich country to have more people retiring than entering the workforce. Due to severe shifts in population dynamics after the second world war, however, it faces a particular challenge. Depressed birth rates in the 1950s were followed by a rapid spike to 1.4m births a year in 1964, and then by a steep fall to half that by 1975, explains Wido Geisthöne, an economist at the Institut der Deutschen Wirtschaft in Cologne. The swollen baby-boomer generation is now retiring, just as the children of the "skinny" 1970s generation, who were born in the 1990s, are seeking their first jobs.

A study in 2020 showed that for every 100 Germans in the about-to-retire age bracket of 60-64, there was a corresponding cohort of just 82 in the about-to-start-careers range of 20-24. More alarmingly, for every 100 aged 55-59 there were only 59 aged 15-19, and for every 100 Germans aged 50-54 there were just 56 future workers aged 10-14. For comparison, the averages ↗

► across the EU were 83, 74 and 72 per 100.

At its natural rate of decline Germany's workforce would shed some 350,000–400,000 people a year, a falling trend that Dr Brücker expects to last a decade before slowing. The national statistics agency agrees, predicting that without immigration Germany's population could tumble nearly 25% over the next 40 years, from 85m to 65m. This would strain not only productive capacity, but the country's ability to support the elderly.

Can imported labour fill the gap? Marcus Winter is sure it can. Of the 750 staff in the local outsourcing and services firm he runs in the prosperous southern state of Baden-Württemberg, three-quarters are already foreign-born. This includes not just unskilled labour but top managers, a trend increasingly common across the country. Research by Dr Geis-Thöne shows that while 51% of all cleaners and 35% of restaurant staff are foreign-born, so are a quarter of medical and science faculty in German universities. Some 58% of Indian-origin wage-earners hold jobs requiring specialist skills or university degrees, double the rate among native Germans.

Mr Winter would be happy to hire more immigrants. But workers from the poorer fringes of the European Union, who can enter Germany visa-free, are increasingly needed at home. Skilled would-be immigrants from countries such as Brazil or Bangladesh still face hurdles despite immigration reforms, introduced in 2000, that were meant to make Germany a talent magnet like Canada or Australia. Low-skilled workers, whom Germany also needs, have few legal ways of coming at all. "The laws are too hard," says Mr Winter. "They can only come to Germany if they have a comparable qualification, but our system is very special and we don't accept foreign degrees."

The bar is set too high for both companies and workers, agrees Julia Beise-Gehrmann, who runs a programme to help integrate foreign workers in the relatively poor state of Mecklenburg-West Pomerania, in

former East Germany. On the plus side, she says, attitudes to foreign workers have relaxed. Local companies that were sceptical of hiring outsiders now see that they have no other choice. Their new concern is to keep them happy.

Vu Thanh Van, whose family settled in Mecklenburg-West Pomerania's seaport of Rostock in 2008, agrees that things are better now. Thirty years ago, soon after Germany's unification, a mob of locals surrounded and then torched a building housing foreign workers and their families. Most were Vietnamese who had been brought to East Germany as "guest workers" and then stayed on. Now, says Ms Vu, the worst foreigners face in Rostock is impoliteness, such as when second-generation immigrants are asked how they speak such good German. ■

Italy

What's the plan?

ROME

Can Giorgia Meloni afford the things she wants?

GIORGIA MELONI and her conservative allies won Italy's election on September 25th with an economic programme not unlike the one unveiled two days earlier by Britain's new chancellor of the exchequer, Kwasi Kwarteng. Its central aim was to boost the economy with large tax cuts. Employees' welfare contributions would be cut. An unpopular regional corporation tax would be scrapped. And a flat-tax regime for the self-employed would be extended so that those with gross earnings of up to €100,000 would pay as little as 15%. The right also pledged earlier retirement for some and an increase in minimum pensions and child benefits. How was all this munificence to be paid for? Since the programme would boost growth, wages, profits—and thus the tax take—there was no need to worry too much about fiscal sustainability, the plan promised.

Oxford Economics, a consultancy, calculates that the right's stimulus could add around 1.6 percentage points to GDP growth next year. But even assuming that some of the measures were phased in gradually, the increase in output would come at the cost of higher inflation and a budget deficit of about 6.2% for the next five years.

The calamitous reaction to Mr Kwarteng's mini-budget showed that investors do worry. And with Italy owing more than half as much again as Britain relative to its GDP, a similar response from the markets could have grave consequences for the entire euro zone. So much, you might think,

for Plan A. But is there a Plan B?

Because of Italy's unhurried provisions for changing governments, Ms Meloni is not expected to become prime minister until late October. Her immediate concern will be to tackle a multi-faceted crisis that would daunt even the most experienced government leader: a toxic brew of energy and cost-of-living crises against a background of war and the threat of recession. The preliminary official estimate of annual inflation in September was 8.9%. Some utility bills have tripled. In public squares across Italy people have been burning their bills and joining lightning strikes and spontaneous demonstrations to demand higher pay.

But Ms Meloni, coached by the outgoing prime minister, Mario Draghi, is more reluctant than her ally, the Northern League leader, Matteo Salvini, to increase Italy's already vast public debt. She and her advisers are reportedly planning to mitigate the effects of the cost-of-living crisis with a package of measures worth 1.25% of GDP. That would be modest compared with recent efforts by Germany and Britain, but the aim would be to fund it entirely with the extra revenue that has flowed into the treasury largely because of inflation.

So far, so prudently pragmatic. But there are already signs that Ms Meloni will face resistance if she simply tries to ditch the right's original plans. On October 4th Mr Salvini and a senior member of the third main group on the right, Silvio Berlusconi's Forza Italia party, both argued for persisting with the flat tax extension.

Much will depend on the composition of Ms Meloni's cabinet. A team long on technocrats would reassure markets and Italy's EU partners. But her allies want seats at the table. The more they have, the greater will be the pressure on Italy's next prime minister to stick to Plan A. ■



To splurge or not to splurge

Room for many more

Germany, m





Yugoslavia and Ukraine

Shadows of the past

VUKOVAR

The war in Ukraine has awakened memories in the Balkans

OUTSIDERS TODAY have mostly forgotten the Balkan wars of the 1990s. As communism collapsed in Europe, the despotic glue that held together Yugoslavia, a multi-ethnic state, dissolved. The country fell apart. Unscrupulous political entrepreneurs won or cemented power by stirring up ethnic paranoia. Battles were fought over which group controlled which land. Atrocities multiplied. By the time the fighting was over in Slovenia, Croatia, Bosnia-Herzegovina and Kosovo, some 4m people had fled their homes and 140,000 were dead. To former Yugoslavs, says Ivan Krastev, a political scientist, the world's amnesia "is kind of an insult".

One man who has by no means forgotten is Vladimir Putin. For him NATO's use of air power, despite Russian objections, to stop ethnic cleansing by Serb forces in Kosovo in 1999, marked the nadir of Russia's post-Soviet weakness and humiliation. And Mr Putin's continued support for Serbia is one reason why today, two hours' drive from Vukovar, the main pedestrian boulevard of Belgrade, Serbia's capital, sports mugs and t-shirts of Mr Putin, along with "z" baseball caps to show support for his invasion of Ukraine this year.

The war in Ukraine has sent tremors across the Balkans. It has horrified most, but thrilled Serbian nationalists who believe that a Russian victory will somehow allow them to reverse the setbacks of the 1990s, including the loss of Kosovo.

In Prekaz, a village in Kosovo, there is a

ruined house, preserved as a memorial, where the Serbian police killed the extended family of one of the founders of the guerrilla Kosovo Liberation Army in 1998. At a café alongside it Gresa Sefaj, a Kosovo Albanian, recalls February 24th, the day on which the Russian invasion of Ukraine began. She was with friends, all of them staring at their phones with tears streaming down their faces. "It all came flooding back to us," she said. "We knew exactly what would happen."

During the Kosovo war Ms Sefaj and her family fled from then-Serbian-controlled Kosovo. When they returned, it was to find that their house had been torched by Serbian policemen, apparently in revenge for the family's involvement in the Kosovo independence movement. "The war will be a disaster," Ms Sefaj said. "They will lose family members, they will be traumatised and they will never forget."

Recalling Vukovar

Take another example. In March the Croatian press was filled with grim comparisons. Mariupol, the Ukrainian port city that the Russians were blasting to cinders in their bid to capture it, was, it was said, the "new Vukovar"—a port on the Danube whose name is etched deep on every Croat heart. In 1991, as Serbian forces closed in on Vukovar, they levelled it. Today it is remembered by Croats as the martyred city of their four-year "Homeland War". What is left of Mariupol may one day play the same

role for Ukrainians.

Vukovar fell in November 1991. Just as Mr Putin now talks of liberating Russians in Ukraine, Slobodan Milosevic, Serbia's leader, talked of liberating Serbs in Croatia, then 12% of the population. A large proportion lived, mixed and intermarried with Croats. Like many in Ukraine before 2014, when Mr Putin first started grabbing Ukrainian territory, many in former Yugoslavia had never even thought of what ethnicity they were until war forced them to decide.

When Serbian militiamen seized Vukovar in 1991 a third of the population identified as Serb. From then until 1996 it was under the control of a breakaway statelet in Croatia, just as Mariupol is under the control of the breakaway Donetsk People's Republic in Ukraine, now illegally annexed to Russia. By the end of 1991 a third of Croatia was controlled by the Republic of Serbian Krajina. In 1995 Croatia, by then properly armed and with American backing, snuffed out the statelet. The Serbs then agreed to the peaceful reintegration back into Croatia of the last remaining chunk of it, which included Vukovar.

Vast sums have been poured into Vukovar's reconstruction since then. Monuments dot the city and surrounding countryside. When the city fell, Serbian soldiers dragged patients from the hospital and murdered some 200 of them. Now the underground wartime hospital is a shrine and museum packed with coach-loads of Croatian children learning about what Croats call the years of Serbian aggression. Ghostly mannequins lie in or try to struggle out of their beds.

Whoever controls Mariupol in the future though, and whatever the similarities, Vukovar risks being a sad role model. In 1991 it was home to nearly 47,000 people. Now, calculates Drago Hedl, a local journalist, there may be barely 18,000. This region has never recovered from the war. Vukovar's streets are neat, tidy and empty.

Crimes and punishments

The events of the 1990s still play out in Balkan politics, imagination and fears. Forgetting is not an option. On June 8th a court in Belgrade confirmed a war-crimes indictment against four Croatian officers for allegedly ordering an air attack on Serb civilians during their flight from Croatia in 1995. A special court set up in The Hague to try former Kosovo Albanian guerrillas began trials just last December.

Today, war-crimes investigators are fanning out across Ukraine, and the International Criminal Court has opened investigations there. In 1993 the UN Security Council mandated the creation of the International Criminal Tribunal for the Former Yugoslavia (ICTY). It indicted 161 people, of whom 91 were found guilty.

The core philosophy of the ICTY was ➤

► that crimes would be attributed to individuals rather than nations and that this in turn would lead to reconciliation. There is not much evidence that this has worked. Most Serbs are convinced that the tribunal was stacked against them and point to the high-profile acquittals of several Bosnian Muslims, Croats and Kosovo Albanians.

Ukraine has already filed a case at the International Court of Justice (ICJ), which tries countries rather than individuals, under the 1948 Genocide Convention. Mr Putin says Russia is acting in Ukraine to halt a genocide being committed by Ukrainians in Donbas. Ukraine says that Russia is the one committing genocide in Ukraine. Mr Putin's claim is nonsense; Ukraine's will be hard to prove. In the Balkans only the slaughter at Srebrenica was ruled to be an act of genocide by the ICTY and the ICJ. In 2015 the ICJ threw out claims by Croatia and Serbia, both of which had accused the other of committing genocide. The wheels of international justice grind slowly; Ukrainians may be as disappointed with the results as many in the Balkans are.

"It is 27 years since the end of the Bosnian war," muses Miroslav Lajcak, the EU's top diplomat in the region. "Twenty-seven years since the end of world war two was 1972 and where are the Balkans? They are still in the past, mentally pointing fingers at each other." The difference was that "Germany never denied what it did and this helped Europe get over the past. Germany absolutely accepted responsibility."

In the Balkans virtually no one accepts responsibility for anything bad that happened during the wars of the 1990s; or if they do it comes with a caveat. Yes, Bosnian Serbs may have murdered 8,000 Bosniaks (Bosnian Muslims) when Srebrenica fell in 1995 ("may" because many Serbs don't believe this is what happened, or dispute the numbers), but in any case they often retort: "what about the 3,000 Serbs around Srebrenica who died during the war?" In reality, there is a big difference.



Mariupol follows Vukovar

The vast majority of those were active-duty soldiers, unlike the rounded-up Bosniaks who were murdered in cold blood.

Dejan Jovic, a political scientist from Zagreb, says that politicians from all sides in Bosnia are revisionists, in that they think the war ended badly for them and their nation and would welcome the opportunity to change that. They just can't agree how. Milorad Dodik, the Bosnian Serb leader, has long called for the dissolution of the Bosnian state. Everyone in the former Yugoslavia has a different interpretation of what happened in the 1990s, and that will not change soon. What is happening in Ukraine will similarly poison relations between Ukrainians and Russians for generations.

A little good news

The lessons are not all gloomy. Since the end of the wars the countries of the former Yugoslavia have at least been at peace. The war in Bosnia ended with a deal, brokered by America in Dayton, Ohio. The Serbs gave up their attempt to wrench as much of the country away from Bosnia as possible and unite it with Serbia; Bosniaks accepted a decentralised state; and Bosnian Croats gave up their separatist ambitions. Bosnia today is an unwieldy construct, with leaders who agree on little. But inter-ethnic violence has not returned.

Twenty-seven years after the end of the Bosnian and Croatian wars, and 23 years after the Kosovo war, progress has been made. Many of those who fled their homes have returned. Properties lost were restored, even if those who had fled from them chose not to go back. Some of the billions given or lent by donors and international financial organisations was filched, but much has been put to good use. New motorways criss-cross the region and signs indicating that the EU has funded

this or that project are ubiquitous.

On paper the Balkan countries remain poor, and compared with western Europe they are; but their grey and black economies are huge. They are far better-off than the numbers imply. Garden centres, which have mushroomed across the region, are evidence that locals have enough spare cash to plant flowers for fun. Construction is booming, fuelled in part by diasporas and money-laundering. Tourism is a huge earner and not just on the seaside in Croatia and Montenegro. Cars, arms and farm products are among Serbia's main exports and it is growing fast. Ukraine's far bigger economy, as it happens, is not dissimilar.

In June Ukraine was conditionally accepted as a candidate to join the EU. But the Balkans show how long the process can be. Slovenia and Croatia, the richest ex-Yugoslav countries, joined the club in 2004 and 2013, respectively. Others are stuck on the outside. Serbia and Montenegro have been negotiating to join for years. North Macedonia gained candidate status way back in 2005. Kosovo and Bosnia have not yet even been accepted as candidates.

The post-war Balkans have seen successes, Mr Krastev says, but if the West promises Ukraine that "we are going to do for you what we did for the Balkans", the response may be less than ecstatic. When it comes to EU enlargement he says: "what are we promising Ukraine? To stay in the waiting room for the next 30 years?"

Won't you stay?

Whatever happens on the battlefield, Ukraine shares a big, long-term problem with the Balkans. Even before the exodus of some 7m refugees Ukraine, like most Balkan states, had a rapidly shrinking population. In 2019 its fertility rate was 1.23 babies per woman, per lifetime. Bosnia's was 1.25. These are among the lowest numbers in the world. The EU's was 1.5 in 2020. A country needs 2.1 births per woman to maintain a stable population, unless it has a hefty inflow of immigrants. Neither Ukraine nor the Balkan countries attract many of those.

The longer the war goes on, the fewer Ukrainian refugees are likely ever to return. Ukraine is poorer than any Balkan country, and even before the war it was losing brain and brawn to the EU.

Alida Vracic, a think-tanker who grew up in Sarajevo during the war, says it alarms her to hear how confident her Ukrainian friends sound about their country's prospects. "They should brace themselves for lots of disappointments...People who are not on the front lines will become rich," and Ukraine, like Bosnia, will be bled dry by war profiteers and new political elites who will come to power thanks to the conflict, she says, adding hyperbolically: "These disappointments will hurt them more than the actual war." ■

Charlemagne | Flashing das Cash

An outsized package of German aid has revived calls for solidarity with poorer EU countries



IMAGINE QUEUING up at a food bank only for a millionaire to rock up in a BMW and announce he is snapping up the entire supply of grub. That is roughly how Europe feels these days. Amid a continent-wide energy crunch, governments from Athens to Warsaw have spent months figuring out how to keep homes warm and factories running. European politicians have shared their best ideas, and tried to make sure whatever they did at home would not beggar their neighbours too much. The sense of everyone being in the mire together at least reinforced the unity forged in response to Russia's invasion of Ukraine. Until, that is, Germany on September 29th flashed its cash with a surprise €200bn (\$197bn) energy package to secure its own economic prospects. So long, suckers!

Governments across Europe have helped businesses and households deal with soaring power prices. Utility bills have been capped, taxes trimmed, benefits boosted. Most would love to do more, but there is only so much they can afford, especially after years of spending freely to keep the economy afloat during covid-19. Germany last week in effect proclaimed that such limits don't apply to it. Because of healthy state finances, it can afford to borrow up to 5% of GDP to create a "protective shield" that will insulate Germans from the cost of higher energy. While everyone else in Europe will have to cut back on gas or suffer the consequences, those in Europe's biggest economy will be able to behave as if not much is going on. In case anyone felt their nose insufficiently rubbed in German success, Christian Lindner, the finance minister, proclaimed: "We are economically strong, and we mobilise that economic strength when it is needed."

A splurge that big is a problem not just because it prompts envy among the neighbours. The real problem is that a lot of the German largesse will go to businesses; precisely how much will only be known once the plan is fleshed out in the coming weeks. The result will be a large distortion to Europe's single market. How can a Spanish steelmaker, whose heavily indebted government cannot afford to shield it from high gas prices, compete with a German rival whose energy bills are being subsidised? Wait long enough and Europe's only thriving companies will be those based in countries whose governments can afford to back them.

In normal times, the EU's answer is to forbid state handouts to

businesses. (Spanish football clubs have been berated by Brussels for receiving undue tax breaks: it would be unfair for taxpaying German clubs to try to compete.) State-aid rules were suspended during covid-19, as national governments bailed out everything from airlines to pizzerias. The problem of excessive generosity in Germany and other places that could afford it soon emerged. Variable domestic capacity to help was incompatible with Europe being a "level playing field" for business, the goal of decades of political effort. The way to square the circle was to spread some of Germany's financial power to the rest of the EU. Thus, as the pandemic raged, a novel form of European solidarity was agreed in the form of a €750bn bail-out fund, Next Generation EU (NGEU). The money is a form of redistribution: it is borrowed by the EU, but will in effect be paid back by its richest members while being doled out to its poorest. This gave fiscal capacity for southern Europeans to stimulate their own economies in the recovery.

Is another NGEU the answer to the German splurge? Some are laying the groundwork for it. Mario Draghi, who will soon depart as Italian prime minister but will remain the continent's economic wonk-in-chief, warned of "unjustified distortions" to the single market. Bruno Le Maire, France's finance minister, on October 3rd argued that Europe's response to the pandemic should serve as a blueprint for thinking about the energy crisis. European commissioners from France and Italy argued for some element of the game plan of 2020 to be revived as part of a "Europe of solidarity".

An NGEU 2.0 is hardly a new idea: issuing common debt at EU level is the euro-federalists' answer to every problem these days. For that reason alone it is unlikely to happen. "Frugal" countries, led by the Netherlands and to some extent Germany, only signed up to the original NGEU on the condition it be a one-off. Even claims that war on the continent and the ensuing energy mayhem are as unprecedented as covid will not abate penny-pinchers' fears that redistribution would become a standard part of dealing with any future EU recession. If countries want to spend their own ways out of recession, Germany in effect says, they are free to run up surpluses in good times. (Easy to do when you scrimp on defence for decades and guzzle cheap Russian gas, comes the response.)

Deutsche mark my words

The plan's bark may be worse than its bite. Having bigged up the €200bn figure for a domestic audience, Olaf Scholz, the German chancellor, tried to play it down for foreign consumption. The aim is still to cut energy use, the money will be spent over two years, and some might never leave state coffers. That would put German largesse on par with others, he argued. France's price cap, say, gives no incentive for households to lower their thermostat settings—though it does little for big businesses, thus limiting the harm to the internal market. In contrast Germany aims to "protect [its] economic fabric", at a time when that of others risks being torn to shreds. Worse, the rest of Europe had no idea it was coming. Many had hoped Mr Scholz would agree to an EU-wide price cap on imported gas (as will be discussed at a meeting of EU leaders on October 7th). Instead, he has served up a domestic one.

A new NGEU is unlikely while the existing scheme still has lots of money to dole out. A compromise might be to revive another covid-era EU scheme, which allowed countries with high interest rates to borrow cheaply by having their loans guaranteed by those with better finances. That would go some way towards reassuring Europeans that, although Germany is putting its own interests first, it has not entirely forgotten it is part of a union. ■

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The Conservatives

Fourth time unlucky

BIRMINGHAM

At a chaotic conference, 12 years in power catch up with the Tories

LIZ TRUSS pitched herself as the heir to Boris Johnson. She was loyal to him and to the manifesto on which he had won a vast victory in 2019. She shared his optimism about Britain. The only difference was that she would do things better, bringing delivery and discipline where he had offered scandal and drift: Johnsonism without Johnson. Party members liked what they saw, and made her party leader and thus prime minister.

In office she has done the opposite. She has repudiated the central planks of Mr Johnson's government: a difficult but electorally successful fusion of fiscal discipline and state intervention. But she has adopted many of the most damaging traits of Mr Johnson's way of governing. The result has been a swift return to the bitter internal warfare that has dogged the Tories for much of the past decade. The party's support in the polls has cratered; so, in spectacular fashion at the party's conference in Birmingham on October 2nd-5th, did the Conservatives' capacity to govern.

Mid-term reinvention has sustained the Conservative Party—switching leader

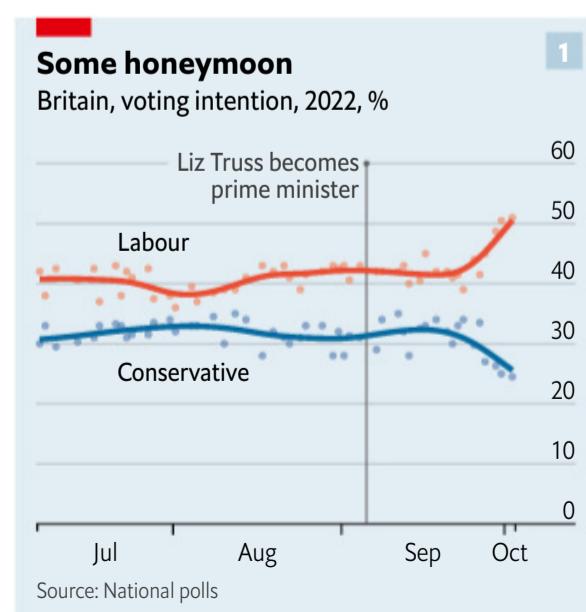
and creed while holding power, changing the government before the electorate could force change at the ballot box. That process has found its limits in Ms Truss, the party's fourth leader in 12 years, whose government has immediately imploded.

On September 23rd Kwasi Kwarteng, the chancellor, unveiled the largest package of tax cuts in 50 years, including abolishing

the top rate of tax of 45p in the pound for earnings over £150,000 (\$170,000). Coupled with Mr Kwarteng's decision to fire Sir Tom Scholar, the top civil servant at the Treasury, and the refusal to commission forecasts from the Office for Budget Responsibility, a watchdog, the market response was a sharp sell-off of government bonds. The Bank of England will now increase rates even more sharply than it would otherwise have done.

As a result, Ms Truss has immediately surrendered two huge tracts of electoral real estate. Voters felt able to indulge Mr Johnson's appetite for redistribution and state intervention because he was publicly constrained by Rishi Sunak, his chancellor and a fiscal disciplinarian. Due to her expansive budget and her advocacy of tax cuts for the rich, Ms Truss has sundered the party's reputation for both economic competence and fairness. "This government has rejected everything that Boris won the last election on," Rachel Wolf, the co-author of the manifesto of 2019, told a conference panel. Labour has filled the void with its own agenda of public ownership and balanced budgets.

That has initiated a collapse in Tory poll ratings (see chart 1). Polls conducted in the past week show an average lead for Labour of 23.7%. Ms Truss's net approval rating of -59 is worse than Mr Johnson at his lowest, said YouGov, a pollster, on October 5th. The loss of the Tories' historic edge on handling the economy means it is hard to see a scenario in which Labour do not form the ➤



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next government, says James Johnson, a former Downing Street pollster. Many MPs think a wipeout beckons.

The central task of Ms Truss's government now is regaining the confidence of Britain's creditors by filling the large fiscal hole left by the budget. The hard choices that requires, coupled with the collapse in the party's poll ratings, unleashed insurrection at the conference in Birmingham. On October 2nd Ms Truss yielded to MPs who warned they would not support her budget, and abandoned the 45p tax cut. "They have lost control of the politics, and the authority has gone," said one rebel. She has a small window to win back her party when Parliament reconvenes on October 11th. One malcontent gives her only a one-in-five chance of success; more likely, they say, she will be forced from office by the end of the year.

This is a crisis of Ms Truss's making yet it has strong echoes of the past 12 years. It owes much to Mr Johnson's style: heroic optimism about the speed with which the government can direct economic activity and outright dismissal of sceptics as naysayers. (In her conference speech on October 5th she took aim at an "anti-growth coalition" whose members include a nameless elite who "taxi from North London town houses to the BBC studio".) In truth, the plans for low-regulation "investment zones" are barely more sketched out than Mr Johnson's "levelling up" programme. "She thinks she can just assert things, and make them true," says one critic.

If that is a familiar story, her costly blunder in sidelining the OBR and the Treasury also followed an approach taken by Mr Johnson towards institutions that check executive caprice. Moody's, a credit-rating agency, had warned back in 2020 that the erratic Brexit negotiations under his watch were part of a pattern of institutions becoming weaker and policymaking more unpredictable.

The collapse in cabinet government that began during the Brexit negotiations under Theresa May also accelerated re-

markably in Birmingham. The old principle that cabinet deliberates in private and is unified in public is dead. Ms Truss's options for filling the fiscal hole left by her budget are constrained after a pair of cabinet ministers declared that welfare budgets must keep pace with inflation.

As for the party, the rebellion in Birmingham was so fast and effective because the struggles of the Brexit years and Mr Johnson's recent downfall have given its plotters plenty of practice. The 45p rebels marshalled their numbers via phone-calls and spreadsheets far faster than the government whips could.

In a happy party, grandes are a stabilising force; in an unhappy one, they are ring-leaders. The uprising was led not by a young radical but by Michael Gove, a veteran of three cabinets and numerous other feuds. Suella Braverman, the home secretary, accused his gang of a "coup". That carries little weight given how she trades on her time as one of the hardliners who paralysed Mrs May's government.

Ms Truss appears to have learnt nothing from her predecessors' downfalls; she made little effort to win round an unruly party. Her position was already weak: although the members' choice, she won the support of fewer MPs during the leadership contest than Mr Sunak. But she made little effort to include his supporters in the cabinet. Many MPs feel she has no mandate for a new direction.

Her prospects of succeeding where Mr Johnson failed, and convincing MPs to vote for sweeping reforms to planning law on which her "growth plan" partly rests, look slim. Loyalist cabinet ministers argue that the collapse in Conservative polling strengthens an all-or-nothing case to push ahead; for MPs fearful of losing their seats because of a backlash against new developments, there is much less incentive to back Ms Truss on such measures. With the government's polling on the floor, the House of Lords will feel no compulsion to approve measures that were not outlined in Mr Johnson's manifesto, says one rebel.

All this means that relations with businesses, which were strained under Mrs May and Mr Johnson, show little sign of improving. Although Ms Truss declared her love for enterprise in her main conference-hall speech, the annual business reception on the sidelines of the event was a tense affair. Mr Kwarteng gave a perfunctory address; one boss told ministers that the growth plan amounted to nought. A declaration by Andrew Griffith, the finance minister, that the government wanted to see more "risk-taking" in business was met with dark humour. "In one day, this party has destroyed its reputation in the City," said one attendee of the mini-budget.

Mr Johnson's victory of 2019 instilled a hubristic belief in the party that a new

leader gave the Tories an opportunity to present themselves as a wholly new government, and that voters would not notice or care about infighting and decay. But they did. For all the electoral success, the sentiments that underpinned voting intention were being slowly eroded.

The proportion of voters thinking the Conservative party was "fit to govern" steadily declined from a high of 56% in September 2015, after Mr Cameron's second victory, to a low of 21% just before Mr Johnson left office (see chart 2). Those who thought the government did a "good job" of economic management fell similarly over the same period, from 56% to 27%. That long-standing malaise now appears to have fed through, swiftly and dramatically, to the Conservatives' national polling. ■

Housing

In a fix

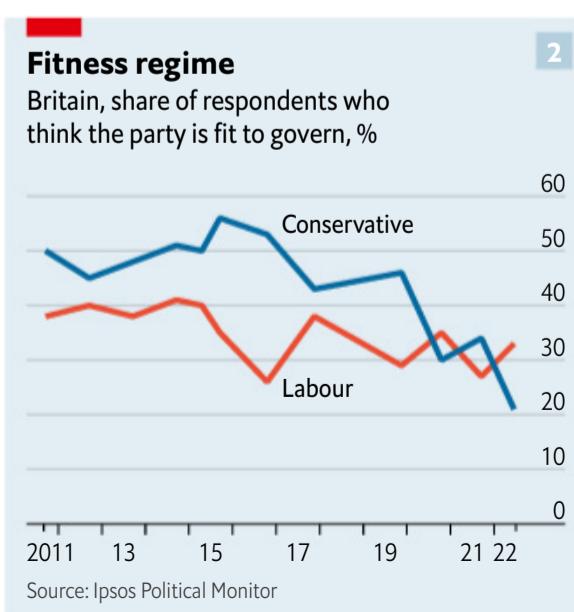
Britain's mortgage market is adjusting to higher interest rates

"**A LITTLE TURBULENCE**" is how Kwasi Kwarteng, the chancellor of the exchequer, later described the effects of the now-notorious "mini-budget" which he delivered on September 23rd. In the housing market Mr Kwarteng has unleashed a bonanza of bumpiness.

According to Moneyfacts, a data firm, between September 23rd and October 4th over 40% of mortgage products disappeared from the market as lenders avoided getting on the wrong side of spiking interest rates. Demand has surged for those pro-



Moving pictures



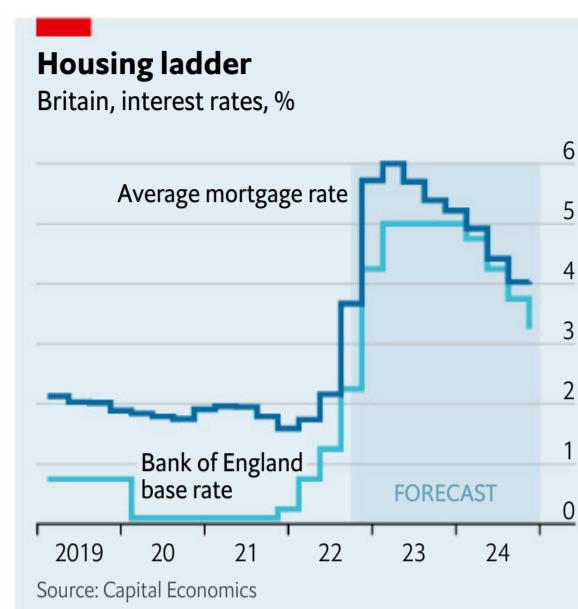
ducts that remained available. Paul Timmins of Quick Mortgages, a broker, says that most customers used to get in touch perhaps a month before their fixed-rate mortgage was due to expire. Now he is hearing from panicking customers as much as a year before.

Interest rates were on the rise long before Mr Kwarteng's fiscal statement. On January 31st the average rate on new mortgages was 1.59%; by August 31st that had risen to 2.56%. But recent increases have been much faster. Between September 1st and October 3rd expectations for where the Bank of England's base rate, which influences mortgage rates, will be in two years rose by 1.5 percentage points. Andrew Wishart of Capital Economics, a consultancy, expects average new mortgage rates of 6% in the first quarter of next year (see chart). That would be the fastest annual jump since 1989.

The risk is that this jump in rates will set off a nasty downward spiral. Some people may be unable to keep repaying their mortgages, prompting a rise in repossessions. Mr Wishart predicts arrears to rise from 0.7% of mortgages now to 1.6% in 2024. Rather than falling behind on dearer mortgage payments, other households will pull back on spending elsewhere. Prospective buyers will find themselves unable to afford what they could before. That, combined with a darkening macroeconomic backdrop, will push down house prices, making homeowners feel poorer and further crimping their spending.

Some reassurance comes from the fact that lending standards have been relatively stringent, at least compared with those before the global financial crisis of 2007-08. For example, stress-testing to see if borrowers can withstand a big change in their mortgage rate has been much more common. Because house prices have risen by over 25% since June 2020, it would take a large correction to propel lots of borrowers into negative equity. Those unfortunate enough to be struggling with their interest payments should get a sympathetic reception from their banks, who do not want the bad press of evicting people.

Even so, higher interest rates will hurt. Mr Wishart expects average mortgage costs to grow from 2% of total household income to over 5% by mid-2024. That shock will be concentrated on the third of British households that have an outstanding mortgage on a home they own. Neal Hudson of Residential Analysts, a consultancy, reckons that currently around 300,000 mortgages each quarter are coming to the end of their fixed-rate period, rising to 375,000 in the second quarter of next year. Yet even for those who do not have to remortgage immediately, spending now will be dampened in anticipation of much higher bills in future.



House prices already seem to be turning. Mr Timmins has noticed a sharp drop-off in enquiries from new customers over the past month as affordability constraints bite. Although Nationwide's house-price index showed that prices in September were 9.5% higher than a year earlier, monthly growth has stalled. Gabriella Dickens of Pantheon Macroeconomics, a consultancy, calls it "the start of a pro-

longed fall". In May 2021 Jon Cunliffe, deputy governor of the Bank of England, cited evidence showing that a one-percentage-point increase in the bank's policy rate would lower house prices by 6-9%.

If prices plummet uniformly then those in the toughest bind will be those who bought recently (meaning they have not had the benefit of rises in house prices), as well as homeowners in London, where recent price increases have been relatively modest and where the ratio between loans and incomes tends to be highest. Mr Hudson estimates that a 20% fall in house prices would leave nearly 10% of mortgages in London larger than the value of the underlying property.

From the perspective of monetary policymakers at the Bank of England, whose next meeting is due in early November, higher interest rates are meant to cause pain. They are worried about high inflation becoming embedded in the economy, a concern that the government's fiscal splurge will only have exacerbated. But they usually prefer to pull policy levers slowly and thoughtfully. The next increase is likely to be a wrench. ■

The Office for Budget Responsibility

Watched dog

A fiscal forecaster is caught up in a political storm

WHEN KWASI KWARTENG unveiled the biggest package of tax cuts in half a century on September 23rd, something was missing. Ordinarily the Office for Budget Responsibility (OBR), a fiscal watchdog, accompanies budget announcements with a forecast of the health of the public finances. But its services were rejected by the chancellor, and without the OBR's conclusions to look at, investors drew their own. Now Mr Kwarteng is scrabbling to make amends. The OBR's forecasts, along with its assessment of whether the government is meeting new medium-term fiscal commitments, may now be published before the end of the month.

The OBR was set up by George Osborne, a former chancellor, in 2010 to provide detailed economic forecasts, an assessment of whether the government is on track to meet its fiscal targets, and scrutiny of the government's costings of individual tax and spending measures. He said then that it would leave the government "nowhere to hide the debts, no way to fiddle the figures, and no way of avoiding the difficult choices that have been put off for too long".

Now that Mr Kwarteng has decided to embrace such scrutiny, the OBR's pointy

heads will be busy over the coming weeks. One task will be to scrutinise the Treasury's estimated cost of the planned tax cuts and analyse their indirect effects on the growth of the economy. Another will be to look at the impact of new (yet-to-be-announced) supply-side reforms. The government argues that these will enhance growth, making the fiscal outlook rosier. The OBR will be sceptical. Although the watchdog does give credit to policies backed by solid evidence, where that is lacking it tends to wait and see what effects they have.

Mr Osborne chose not to make the OBR as strong as it could be. It can neither offer opinions on the merits of government policy, nor ignore policies that the government would struggle to implement, such as deep unspecified cuts to public services. It does not decide the rules against which to assess the government's fiscal performance, a loophole that Mr Kwarteng may exploit by, for example, delaying the time by which he has to meet his goal of a falling debt-to-GDP ratio. But the OBR's independence is now central to the credibility of the government's fiscal plan. The new chancellor has inadvertently strengthened the institution he tried to sidestep.

Bagehot | Accidental austerity

How the government embraced death-cult Osbornomics



LONG DEAD she may be, but the Iron Lady lives on at the Conservative Party's conference. Margaret Thatcher and other former Conservative leaders are deified at the annual jamboree, which took place this year in Birmingham. Fringe events are held at the Thatcher theatre. Men born in the early 2000s dress like 1980s throwbacks in pinstripe suits and tribute braces. A psychedelic picture of Benjamin Disraeli leers out from a tote bag, alongside the faces of Boris Johnson and St Maggie herself. Attendees can even buy a Winston Churchill baby bib.

Strangely, the face of George Osborne, who was chancellor of the exchequer under David Cameron from 2010 to 2016, appears on no tea towels or tote bags. Yet it is his policies that Liz Truss's new government has started aping. The announcement on September 23rd of unfunded cuts to corporation tax, income tax, stamp duty and national insurance has left behind a hole in the budget of £43bn (\$49bn; 1.5% of GDP). Unless Ms Truss reverses course, filling it could well require spending cuts to rank alongside Mr Osborne's efforts to slash the state. Dreams of a 1980s-style supply-side revolution appear already to be in tatters. "Ms Truss wanted to be Thatcher," says Dan Tomlinson, an economist at the Resolution Foundation, a think-tank. "She's ending up imitating Osborne."

This would not, however, be a straight copy of the Osborne years. The Conservatives are heading for an Osborne-style revolution without the support of MPs, voters or markets and against a far less benign economic backdrop. In short, it is a death-cult version of the Osborne era.

Start with the politics. In 2010 the Conservatives were a well-disciplined party, hungry for power after 13 years out of office, willing to do unpopular things. In 2022 blood-soaked former cabinet ministers stalk from one event to another with the soft smiles of serial killers. Even current members of cabinet sound off about potential spending cuts they don't like. Penny Mordaunt, a former (for now) leadership rival of Ms Truss, has publicly demanded that the government increase in-work welfare payments in line with inflation, at a cost of about £11bn in the first year. Craig Oliver, the government's chief spinner during the Osborne years, coined the nifty term "prebellion" in response.

Mr Osborne left space to surprise voters on the upside. The for-

mer chancellor pushed through stealth tax cuts, raising personal allowances so that people took home more money even when the headline rates stayed the same. By comparison, his successor as chancellor, Kwasi Kwarteng, talks noisily about tax cuts that will leave people no better off. By 2026, for each £1 (\$1.12) in tax cuts, a household will lose £2 via freezes on various tax thresholds, according to the Institute for Fiscal Studies, a think-tank. Couple this with rising energy bills and mortgage costs, and people may not feel richer even if the government's plan to boost growth works and the economy is flying.

The British government is used to marking its own homework when it comes to its finances. Chancellors were broadly left to set (and tweak) their own fiscal rules on spending while the market nodded along. Mr Kwarteng no longer enjoys the benefit of the doubt, after picking fights with the Treasury, criticising the Bank of England and ignoring the Office for Budget Responsibility, a watchdog. Government-bond markets are not supposed to be startled when a chancellor speaks, in the same way that the chancellor's red box is not supposed to spring open and his packed lunch fall out. And yet the "fiscal event" on September 23rd sent gilt yields rocketing and sterling plunging. Investors will now decide whether Mr Kwarteng's fiscal rules are credible. Markets will ponder whether structural reforms are able to muster a parliamentary majority, like a Club Med economy during the euro-zone crisis.

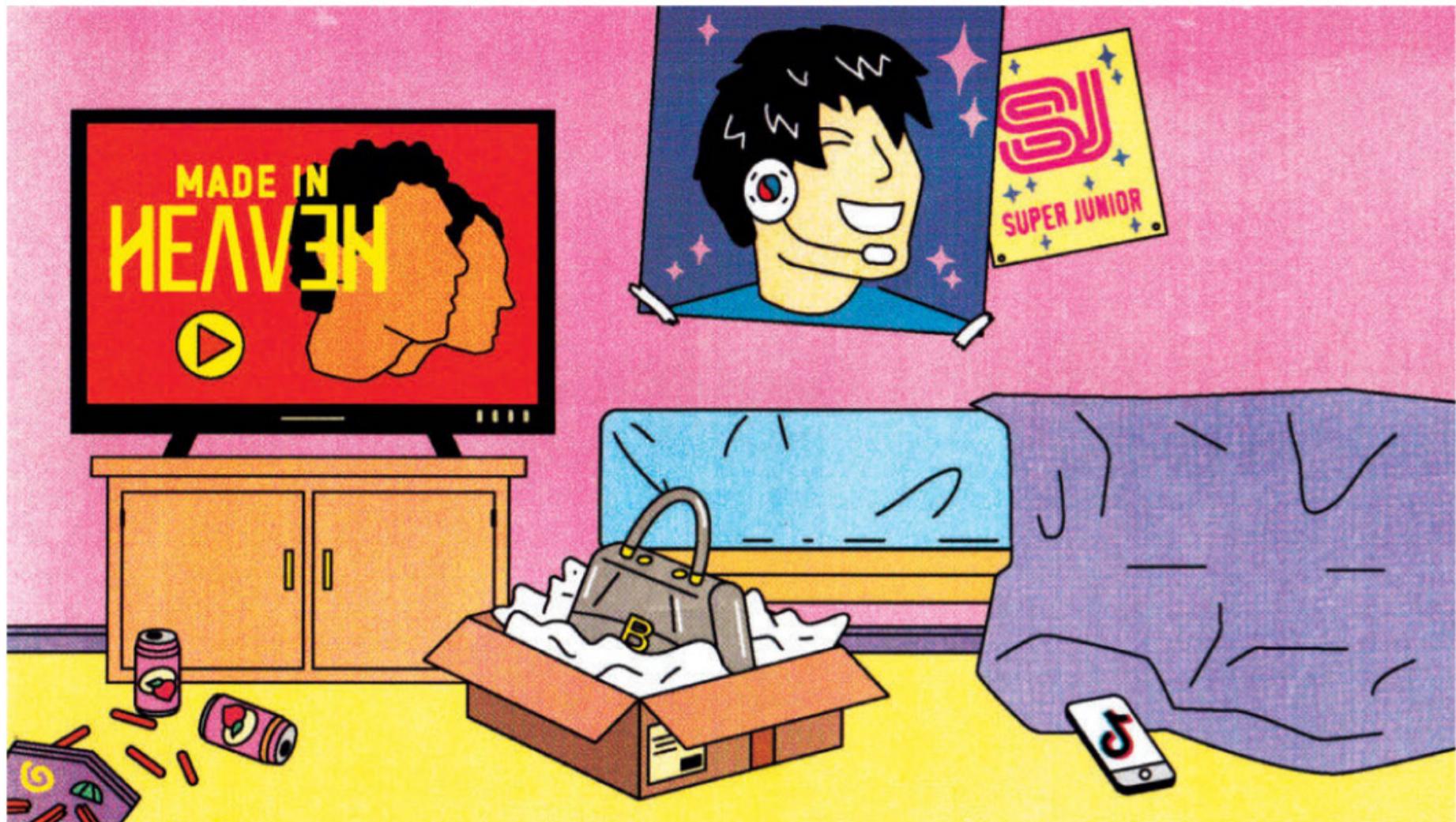
Previous radical programmes by Conservative governments have benefited from a rosier economic backdrop. Thatcher benefited as revenues from North Sea oil and gas poured into the Treasury's coffers. Mr Osborne was helped by inflation and interest rates both bobbing along near to historic lows globally. Now the Conservatives face an energy crisis, rocketing inflation and interest rates lurching upwards, too.

After 12 years of Conservative rule, moreover, there is no scapegoat. During the 2010s Mr Osborne shifted the blame onto Labour at any opportunity. Once Teflon, the Conservatives are now flypaper: whatever is thrown at them sticks. During one interview with the BBC this week the chancellor was asked about the "Kwarteng premium" on people's mortgages. Mr Kwarteng huffed that interest rates had shot up globally, thanks to central-bank decisions in America. It was to no avail. Call-ins are stuffed with furious homeowners facing large bills.

Curious George

Voters put up with austerity, rather than supporting it. The Conservatives failed to win a majority in 2010, instead governing with the Liberal Democrats, and then barely scraped to a small majority in 2015. Only Boris Johnson's vision of big-state Conservatism proved truly popular with voters in the 2019 general election, handing the party an 80-seat majority, its biggest since Thatcher. Those who voted for it are in for a shock, much as Lib Dem voters were flummoxed by the austerity measures implemented in their name during their time as Mr Osborne's coalition partners. In 2010 the Lib Dems had 7m votes; in 2015 they won 2.5m.

A return to a near-suicidal version of the Osborne years explains why pessimism permeated every corner of the Birmingham conference. Under Ms Truss the party is doomed, runs the consensus view of several former ministers. And yet the mood among the merchandise stalls was almost giddy. One attendee, a man of the cloth no less, summed it up best: "It's like a wake, but no one's sure if the corpse is the Conservative Party or just Liz Truss's ministry. And like every good wake, everyone's getting smashed." ■



Capitals of cool

How pop culture went multipolar

PARIS AND SEOUL

Fears that globalisation would produce a monoculture have proved utterly wrong

THONGS DESCENDED on the Jamsil Arena in Seoul, the South Korean capital, in July to see Super Junior, a band that exemplifies the “Korean Wave”. The crowd reflected the global reach of k-pop. Melonie was visiting from Ecuador. When asked about her “bias”, the term fans use to discuss which band member is their favourite, she pulled her top aside to reveal a tattoo of the name of the group’s leader, Lee-teuk, on her chest. Karen, from Peru, is doing a master’s degree in South Korea. She thinks she likes Super Junior even more than she likes Korea itself.

Once the show began it was clear why Super Junior appeals to people around the world. The band’s rotating membership are dewy-faced heart-throbs recruited from South Korea, China and America. With backgrounds in acting and dance, they are consummate performers. Songs were punctuated with banter and skits. The strutting and pouting was directed not just at the screaming women in the stadium but also at cameras dotted around the stage, streaming the performance to audiences in other time zones.

Helped by government money and savvy marketing, South Korean popular culture has taken the world by storm. Besides music are films such as “Parasite”—which became the first film in decades to win both the Palme d’Or and a Best Picture Oscar—dramas such as “Squid Game”, and a bevy of fashion and beauty brands. But it is only part of a broader transformation. Throughout the 20th century, cool was mostly a Western thing. From flappers to hip-hop, people looked to cities like London, New York and Paris for fashion, music and entertainment. After the cold war, as the world grew richer and more connected, says Marty Kaplan, a professor at the University of Southern California, many people feared that the West’s cultural dominance would keep growing and ultimately produce a global monoculture.

The opposite has happened, says Dr Kaplan. Today, a teenager sitting in New York is as likely to listen to k-pop and Afrobeats tracks, a sort of west African pop, as American hip-hop. A young Mumbaikar logging onto a video-streaming platform for an evening’s entertainment is as likely to

watch “Made in Heaven”, an Indian-made romantic drama about two wedding planners in New Delhi, as “Call My Agent”, a French comedy about a talent agency in Paris. Pop culture has gone multipolar.

This can be seen even in deeply uncool things such as trade data. The World Trade Organisation and the OECD, a club of mostly rich countries, produce estimates of the trade in “audio-visual services”, which includes films, radio and television. Their data suggest that, across the OECD, imports from America were 25% of the total in 2020, down from almost 40% a decade earlier. America’s cultural imports, meanwhile, have risen almost six-fold, and are coming from all over the world.

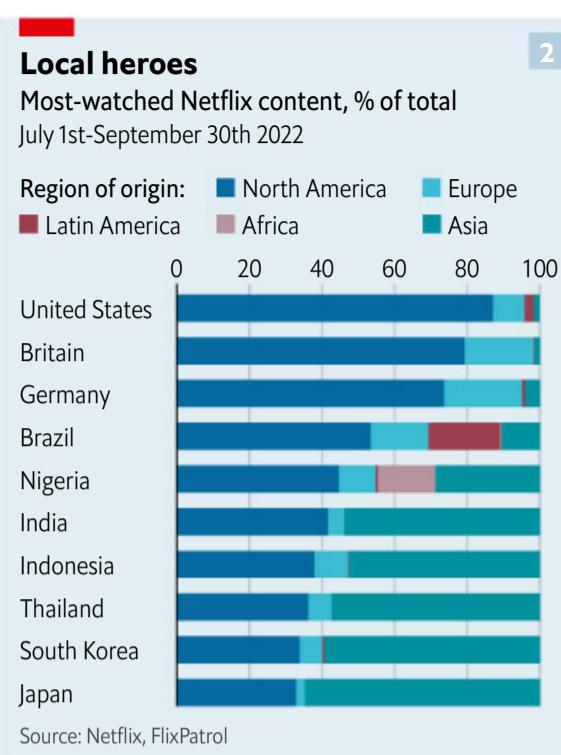
Say goodbye to Hollywood

To look more closely at the music industry, *The Economist* examined data from Spotify, the world’s largest music-streaming firm, covering 70 countries between 2017 and 2021. English-language songs, many of which are produced by American and western European artists, still dominate. Of the 50 most-streamed songs on Spotify over the past five years, 47 were in English. But that dominance is slipping. In countries with a strong local music industry, such as India, Indonesia and South Korea, the share of English-language tracks in the top 100 has fallen from 52% to 31% over the past five years (see chart 1). In Spain and Latin America the figure dropped from 25% to 14%, as local artists, many of whom sing in Spanish, won acclaim.

A similar diversity is evident in what people watch. FlixPatrol, a Czech firm, tracks the most-watched programmes and films every week in almost 90 different countries on Netflix, a video-streaming service. By its estimates, North American programmes still dominate in rich, English-speaking countries like America, Australia and Britain, where they make up 80% to 85% of the most popular shows and films (see chart 2). But in Argentina, Brazil and Colombia only around half of the most-watched shows were North American. In Japan and South Korea the share was lower still, at less than 35%.

Two things have driven the emergence of multipolar pop culture. The first is economic growth in countries that until recently were poor. Rising incomes give consumers more money to spend, much of which goes to local musicians and filmmakers. More money in turn means more artists. With that virtuous spiral comes self-confidence. Scott McDonald, head of the British Council, a government-backed body that promotes Britain abroad, recalls his most recent trip to China, just before the pandemic. Rather than questioning him about the latest trends in the West, as they had done on previous visits, the people he met were keen to show off chic local shops, restaurants and social-media stars. "Every single person was telling me: we don't care what's happening around the rest of the world anymore because we have the coolest stuff here," Mr McDonald says.

The second factor is the rise of the internet, which has created many more opportunities to put out content. On traditional television and radio channels, executives carefully chose what would air in the limited number of time slots available each day. Online-streaming firms are free from such scheduling constraints, and can host far more content. TV and radio transmissions are usually restricted to the



country a channel is based in. Netflix, Spotify and the like are global, which makes it easier for local productions to earn fans overseas.

Most democratic of all are social-media platforms such as Instagram, TikTok and YouTube, which let aspiring performers anywhere in the world create songs or art that can be distributed at no cost. Recommendation systems that sift through millions of accounts every day offer an automated alternative to record-company talent scouts or TV commissioners.

The upshot is that there is far more entertainment and culture out there than there used to be, and that borders matter much less than they used to. The biggest account on TikTok, for instance, belongs to Khaby Lame, a Senegalese-Italian. His light-hearted posts, which mock social-media trends and generally have no words, have an international appeal that has won him over 150m followers. It is hard to imagine Mr Lame, who was laid off from a factory job in 2020, achieving that sort of success in the old-media world. T-Series, an Indian record label and film company, has 226m subscribers on YouTube, the most of any account. India's hundreds of millions of internet users propelled T-Series to fame. But these days a third of its audience is based outside its home country. Burna Boy, a Nigerian singer, became the first African to sell out Madison Square Garden in New York City this year.

The more consumers in one country are exposed to culture from other countries, the more adventurous they get. Young people today, accustomed to scrolling through posts produced across the globe on social media, are not put off by subtitles, says Brian Graden, a former head of programming at MTV, a music channel, who now runs his own production company. Nor do they expect a uniform style across the videos they watch. Much of the entertainment indus-

try, he says, realised this only after "Squid Game", a Korean-language drama with a largely Korean cast, became one of the most watched shows on Netflix last year.

The decentralisation of cool is forcing change on the arts and entertainment industry, which is coming to recognise that many of today's most influential tastemakers come from the developing world. As Jeremy Zimmer, who runs United Talent Agency (UTA), a Los Angeles-based group, puts it: "you have to wake up every day and think about your business not as Los Angeles and New York but as wherever culture is and wherever the audience is." Earlier this year, UTA, whose clients had traditionally been American actors based in Hollywood, began representing Anitta, a singer, who has since become the first Brazilian to win a prize at the MTV Video Music Awards.

The winds of change are even blowing through European luxury fashion, one of the most hidebound corners of the cultural industry. Launchmetrics, an analytics group, studied celebrities talking about Paris Fashion Week this year and found half of the ten most valuable voices, in terms of the boost they gave to advertising, came from emerging markets. They included a Filipino actress, and a Brazilian football player. Only one French influencer—and no Americans—made the list.

All that may explain why Balenciaga, a fashion firm founded in Spain in 1919 and which sells \$2,000 handbags, decided to take its collection to Shanghai in 2021, when covid-19 restrictions prevented Chinese influencers from going to Paris Fashion Week. When Celine, another high-end fashion brand, closed Paris Fashion Week this year, the crowds that formed outside Palais de Tokyo were there as much for the K-pop stars on the guest-list as for the French fashionistas.

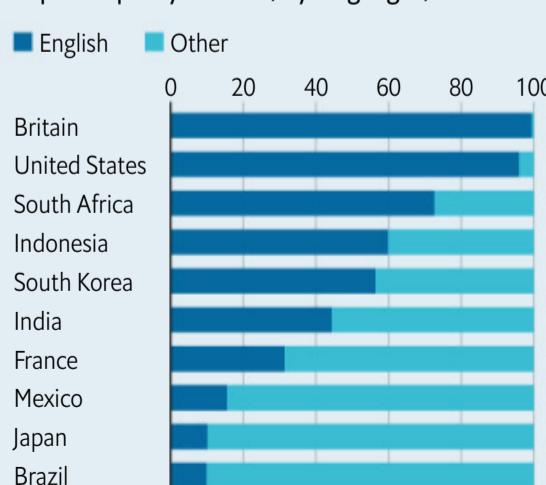
It's only rock and roll, but I like it

Killjoys might be tempted to dismiss pop culture as mere frippery. But as Andrew Breitbart, a right-wing American journalist, once observed (in a very different context), politics is downstream of culture. Pop culture can be a vector of "soft power"—a country's ability to shape the preferences of others using attraction rather than coercion. Films and music can draw people to visit a country, study there, learn the language and sympathise with its ideals.

Super Junior's rollicking performance at Jamsil Arena was about catchy tunes, baby-faced heart-throbs and a screaming mass of young women. But it was also about soft power. Midway through the spectacle, Donghae, the lead vocalist, thanked the audience in English, Korean, Japanese and Mandarin. All the while, his headset dangled nonchalantly over his shoulder, the South Korean flag emblazoned conspicuously on the earpiece. ■

The new wave

Top 100 Spotify streams, by language*, 2021



*Each song is only labelled with one language. Where a song contains two or more languages, our automated method makes a best guess

Sources: Spotify; Genius; Google Translate; Musixmatch; The Economist



Management consultants

Bulletproof suits

Forget the scandals. The consiglieri of the corporate world are more powerful than ever

THE CEO-WHISPERERS of Bain & Company, Boston Consulting Group (BCG) and McKinsey, the trio at the pinnacle of management consulting, are accustomed to operating in the shadows. Of late, though, they have been thrust into the light by scandals. Bain has come under fire for gutting South Africa's tax office. BCG has been criticised for its close ties to Saudi Arabia's autocratic de facto ruler, Mohammed bin Salman, and for allegedly profiting from corruption in Angola. In a new exposé published on October 5th, "When McKinsey Comes to Town", Walt Bogdanich and Michael Forsythe of the *New York Times* pile on with a harrowing account of decades of dishonourable exploits at McKinsey, the biggest name in the business.

Allegations covered in the book include helping opioid manufacturers peddle their products to addicts, encouraging insurers to slash claims payouts to motorists and profiting from ill-gotten contracts with state-owned companies in South Africa, a charge for which the country's prosecutors announced criminal proceedings on September 30th. McKinsey says that the book

"fundamentally misrepresents our firm and our work" and that "the charges filed against our South Africa office are meritless and we will defend against them."

Still, it had previously apologised for its work with South African state-owned enterprises and its support of the opioid industry, beefed up risk and legal functions, and put in place tighter rules for signing off projects before they begin. Last year, as the scandals were piling on, it defenestrated its boss, who appears to have paid the price for goings-on that mostly happened before his watch. Bain has also said sorry for its work with South African taxmen, introduced new layers of governance and set up

a whistleblower hotline. BCG has said that its work in Saudi Arabia has focused on areas that could "positively contribute to economic and societal transformation" and that the firm has turned down work that goes against that principle.

This bout of soul-searching is welcome. For despite the scandals, the consultants' clout is, if anything, on the rise. Between them, the elite trio advise the world's largest companies on their most consequential decisions, and many governments, too. (The author of this article used to work for Bain.) Clients are happy to pay eye-watering sums for this counsel. Messrs Bogdanich and Forsythe report that McKinsey earned \$50m from Chevron, an American oil giant, in 2019, \$30m from Altria, a tobacco company, in 2018 and 2019, and \$13m from US Steel between 2018 and 2020. It also made \$1bn in fees from America's federal government between 2009 and 2021.

Between 2015 and 2020 the combined revenue of the three firms roughly doubled, to \$24bn, estimates Kennedy Research Reports, an industry-watcher (see chart on next page). A bumper 2021 may have seen takings near \$30bn, according to Consultancy.org, which tracks the business, as clients wrestled with supply-chain and other issues spawned by the covid-19 pandemic. And the consultants are offering an ever wider range of services, including help with implementing the consultants' counsel. "Clients now demand more than just advice. They want our help in underwriting outcomes," says Bob Sternfels,

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boss of McKinsey. Christoph Schweizer, boss of BCG, agrees: "Over time, our work has shifted from advising to advising and building." That means bigger, longer projects, and juicier fees.

Part of the consultancies' growth has come at the expense of rivals that have struggled to keep pace with the dominant three. Over the past decade smaller firms like Booz & Company, Monitor and Parthenon have been snapped up by the big accounting firms—PwC, Deloitte and EY, respectively—which have sought to build premium consulting arms that can go head-to-head against the MBB, as the elite trio are known. The results have been mixed, with some accountancy firms struggling to hold on to top talent after the acquisitions. As a result, the pointy end of the consulting business has confirmed one of its own maxims: a stable competitive market never has more than three significant competitors.

The three firms have also benefited from structural changes. One is the craze for environmental, social and governance (ESG) considerations, which ever more businesses are taking into account in addition to financial ones. The relative novelty of ESG means that few bosses know even where to start. In such cases bringing in outside experts makes sense. The consulting trio are now offering services to help clients decarbonise, improve diversity or otherwise become more virtuous. Whether or not their clients can do well by doing good, the consultants themselves are certainly profiting from the ESG craze: BCG already earns around 10% of its revenue from climate change-related consulting.

An even bigger growth area is digitisation. Fearful of their firms becoming the next Borders or Blockbuster, two victims of the digital revolution, chief executives are willing to pay top dollar for help with things like selling products online, automating routine work or sprucing up Byzantine IT systems. Demand for help with digitisation is accelerating in line with the pace of disruption, notes Mr Sternfels.

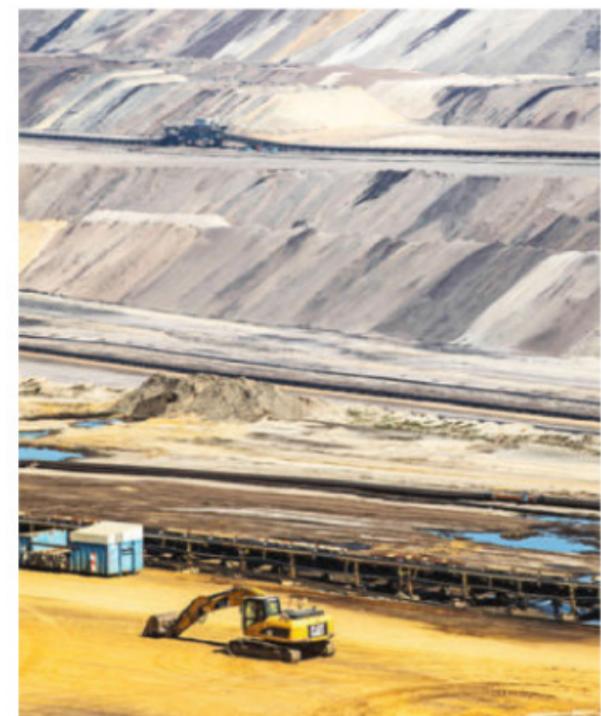
As with ESG, many companies lack in-house know-how about how to do it well—or at all. The consultants, by contrast, have often been thinking about it for years and, given their broad client base, have a good grasp of sectoral and economy-wide best practice. They have also been beefing up their digitisation practices by buying outfits with expertise in areas like big data and online marketing. It helps that the trio can point to their own successful digital transformations. Manny Macea, boss of Bain, recalls how the most advanced tool at his disposal when he first started at the firm in the 1980s was a calculator. Today's consulting teams are armed with suites of purpose-built software that take much of the grunt work out of jobs like benchmarking

costs, freeing up more time for important things like talking to clients and understanding their business challenges.

The consultants' glory days may not last for ever. Competition may stiffen; in May EY decided to spin off its consulting arm to unshackle it from the stodgy audit business. The ESG movement is facing a backlash, especially in America, where the political right decries it as woke capitalism. At some point, most companies will have digitised. If those growth engines sputter, pursuit of fresh business could propel the consultants into the arms of controversial clients in riskier places. That in turn could deter the industry's most important raw material: brains. "Our product is our talent," as Mr Macea says. And talent is a scarce resource—especially the sort that is willing to work the punishing hours expected of MBB-ers.

These are genuine threats, but not imminent ones. Both ESG and digitisation probably have years' worth of business in them yet. Having had their fingers burned in countries like South Africa and Saudi Arabia may have tempered consultants' appetite for more of the same. As for brains, among MBA graduates interest in consulting is as strong as ever, in contrast to a waning appetite for investment banking. Overall application volumes have apparently kept pace with the number of available slots, as firms have targeted candidates from less traditional backgrounds like medicine and science, and looked beyond the elite universities that historically provided the lion's share of hires.

Aspiring consultants may believe, rightly or wrongly, that the sundry scandals represent isolated instances of past bad behaviour and that new safeguards put in place will prevent them from happening again. Alternatively, they simply don't care, relishing the intellectual challenge, the pay cheques and the career leg-up that comes courtesy of a stint at MBB. Either way, the world's chief executives need not worry about the whispers in their ears falling silent soon. ■



German energy

Cleaning up its act

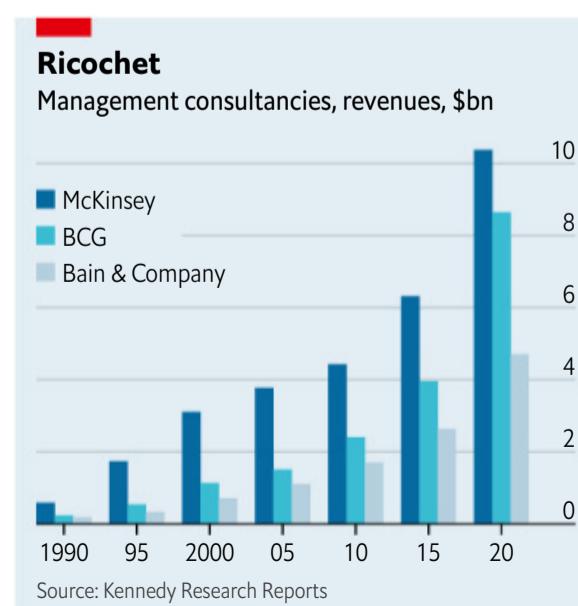
BERLIN

To lead the pack in renewable energy RWE needs to be more ambitious

IT HAS BEEN one of Europe's dirtiest companies for more than a century; now RWE is aiming to be among the cleanest. Germany's largest power generator has recently taken two big steps towards this goal. On October 1st it agreed to buy the renewable-energy business of Consolidated Edison (ConEd), an American utility, for \$6.8bn. Three days later it signed an agreement with Germany's regional and federal governments to bring forward plans to stop generating electricity with lignite, an especially filthy sort of coal, by eight years to 2030. But is this enough to burnish its green credentials?

RWE has become a household name in its home country as an operator of nuclear plants and lignite mines—which has made it the target of many a protest over the years. In 2019, for instance, activists camping in dozens of treehouses stopped it from clearing what was left of the Hambacher forest, a once-vast tract of woodland in western Germany, in order to continue mining lignite. The recent announcements are part of a much bigger realignment. In November last year it unveiled plans to invest €50bn (\$50bn) to increase renewable-power capacity from 25 to 50 gigawatts (GW) within eight years, about a third of its current total.

In combination, the two recent deals show that RWE is on the right path, says Vincent Aryal of JPMorgan Chase, a bank. ConEd's 3GW renewable business will make RWE America's fourth-largest provider of green energy, but also comes with a pipe-



► line of wind and solar projects of over 7GW. The agreement in Germany raises the prospect that RWE could exit from coal even earlier than 2030. Markus Krebber, the firm's boss, told analysts that its lignite business is likely to be hived off as a non-profit foundation as soon as the current energy crisis ends and German politicians have the time to give regulatory approval.

Yet some investors argue that RWE is not ambitious enough. Other big European utilities have more sweeping plans, says Benedikt Kormaier of Enkraft, an activist fund which owns a small stake in RWE.

Enel, an Italian firm, and Iberdrola, a Spanish one, want to reach 129GW and 95GW, respectively, in green power-generation capacity by 2030. This, combined with the fact that it will have a large legacy business for some years, means that RWE's valuation is lower than it should be, notwithstanding the prospect of a very profitable year and its rising share price, says Mr Kormaier. The financing of the ConEd deal shows this, he points out. The Qatar Investment Authority (QIA), the country's sovereign-wealth fund, contributed €2.4bn of cash for the deal and will henceforth own 9% of

RWE. But it only paid about half the multiple for its stake in RWE that RWE shelled out for ConEd's renewable business.

Perhaps the QIA is a beneficiary of the wheeling and dealing between Germany and Qatar. When Chancellor Olaf Scholz toured the Middle East in September, Qatar was one of the stops. Germany's government hopes that the resource-rich Gulf state will one day provide exports of liquefied natural gas to replace imports from Russia. With QIA now becoming RWE's largest shareholder, the gas is more likely to start flowing. ■

Bartleby The magic formula

Five numbers for managers everywhere to remember

THIS IS THE age of the data scientist. Employers of all kinds prize people with the skills to capture and analyse enormous amounts of information, to spot patterns in the data and to turn them into useful insights. But some of the most valuable figures in business need neither an analytics team nor knowledge of Python. They are simple to remember and useful for bosses in every organisation. Here is a small selection of management's magic numbers:

Zero: Doing nothing can be the most valuable thing a manager can do, as the fable of Atwood's duck demonstrates. Jeff Atwood, a computer programmer, is credited with popularising the (possibly apocryphal) story of a piece of deliberately unnecessary work that an animator did on a video game called "Battle Chess".

Aware that the higher-ups needed to feel that they were adding value by making changes, the animator gave the character of the queen a wholly extraneous pet duck. Sure enough, the reviewers asked the programmer to do only one thing: remove the bird. In theory everyone ended up happy, except the duck. In practice time had been wasted because people higher up the chain needed to justify their existence.

One: This is the number of bosses people should have. In reality, matrix structures and team-based approaches mean that lots of workers report to multiple masters. According to a Gallup survey in 2019, 72% of American employees occasionally or consistently work in different teams. This approach can have benefits, but clarity is not one of them. The Gallup poll showed that those who work in a matrix are less likely to know what is expected of them, and more likely to spend their day festering in endless internal meetings. Managers in

matrix structures should at least try to make their underlings feel like they have one boss, even when they do not.

Three: In a paper published in 2013 two academics tested whether there was an optimal number of claims that marketers should make for their products and services in promotional messages. They found that making three claims was best: any fewer and consumers felt they lacked enough information to make their minds up about a product; any more and they became sceptical that the claims were authentic. The "rule of three" is useful in many other settings, too, from points in presentations to pricing options for customers. One place it does not apply is in a column about magic numbers, so:

Ten: The number of people who should be in a meeting depends not just on what is being discussed, but also on where it is taking place. According to a survey of British workers conducted in 2021 by Nicholas Bloom of Stanford University and Paul Mizen and Shivani Taneja of the University of Nottingham, the efficiency of online meetings declined steadily as the

number of participants grew. Zoom calls work best with between two and four participants, when there is less need for people to keep muting and unmuting, more chance to see people's facial expressions and less chat-room blather. Efficiency declines until ten people or more are involved, at which point it is better to hold meetings in person.

150: Dunbar's number postulates that the number of stable social connections a human can have is roughly 150. First proposed by Robin Dunbar, an anthropologist at Oxford University, the figure has its critics. Some researchers reckon it is too low; introverts think it is ludicrously high. But this group size recurs in many settings, from the congregations of single-leader churches to networks of Christmas-card recipients. Companies have also found that it has significance; passing the 150-person threshold requires a change in management practices, from informal and undocumented to structured and codified.

There is a pattern to these numbers. In one way or another, they illustrate the risks of addition. Expand a company beyond a certain size and social bonds will weaken. Invite more people to the meeting and you will wait longer at the start as everyone dials in. Add extra reporting lines and the burden of collaboration will spiral.

The idea that less is more is not new, of course. Max Ringelmann was a 19th-century French engineer who found that adding more and more people to a rope-pulling team had an adverse effect on individual productivity. The more people there were to tug on the rope, the less sense of responsibility each person felt for the outcome and the less hard they pulled. Ringelmann's insight is still valid. Subtraction has its attractions.





The luxury business

A new look

DUBAI AND PARIS

A \$700bn industry gets a modern makeover

PARIS FASHION WEEK always makes heads turn. Two events that took place during this year's extravaganza, which concluded on October 4th, made it dizzying. On September 29th a crocodile-skin Hermès handbag became the priciest ever to be auctioned at Sotheby's. It was the apotheosis of old-school luxury: timeless, leather-bound and, at €352,800 (\$346,800), eye-poppingly expensive. The next day Coperni, a French fashion house barely ten years old, showed off luxury's whizzier side by spraying a nearly nude supermodel with an ingenious and animal-friendly material that coalesced into a snug white number (see picture).

This tug of war between tradition and novelty is nothing new in luxury fashion. It is now becoming true of its makers' busi-

ness models, too. A post-pandemic rebound in sales of personal luxury goods, to nearly €300bn (see chart 1), conceals rising volatility within the industry. Investors who used to treat large luxury groups such as LVMH, Hermès and Kering as pretty much of a piece are now differentiating between them (see chart 2) as they adapt—or not—to the new tastes of new shoppers in new places. In the process, an industry with a market value of some \$700bn is getting a new look.

The first change in the luxury market is geographic. Last century fashion houses sailed the winds of globalisation from Europe and America to Japan and then, in the past decade, China. As the Chinese economy slows and the Communist Party turns the screws on the ultra-rich, firms are looking elsewhere for growth opportunities, particularly to the oil-soaked Persian Gulf, whose well-heeled shoppers are growing richer on the back of high fossil-fuel prices. They are happy to splurge some of that wealth on fancy fashion—and are becoming more adventurous in their purchases. This year Loro Piana, an LVMH label, collaborated with an Emirati artist to create a special Ramadan collection for its Middle Eastern shops.

The Gulf's luxury hub, Dubai, may also be the world's last true entrepot, welcoming of anyone from anywhere, as long as their pockets are deep. The flagship shop in Dubai of Louis Vuitton, LVMH's leading brand, is popular with Russian shoppers, who for reasons of geopolitics are finding

it harder to spend their cash in London, Milan, Paris or New York.

The luxury groups are eyeing other underexplored places, from Nigeria and South Africa to India and Indonesia, albeit tentatively for now. In a more profound shift, they are increasingly thinking of markets in terms of cities rather than countries, says Anita Balchandani of McKinsey, a consultancy. In March Gucci (owned by Kering) opened a boutique in Austin, full of rich techies who during the pandemic left nannyish California for less locked-down, lower-tax Texas. In December Louis Vuitton opened a menswear shop in Miami, a city popular with crypto bros. As wealthy Chinese were confined to their home cities by their government's strict covid-19 policies, luxury brands doubled down on outlets in second-tier places such as Chengdu and Nanjing.

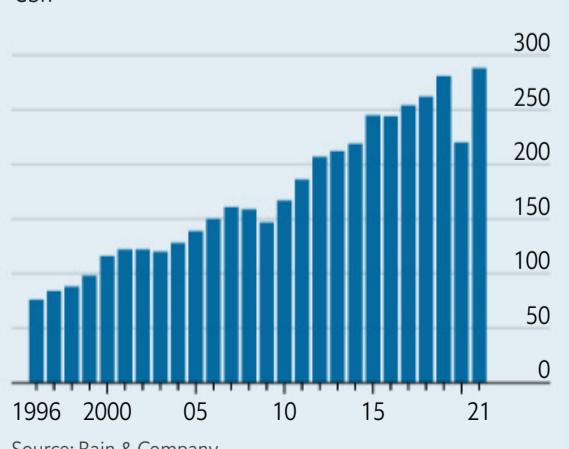
Regardless of where they live and shop, buyers are getting younger—a second change facing pedlars of poshness. Between 2019 and 2021 Generation Z, those born between 1997 and 2012, increased its share of global spending on bling from 8% to 17%—much faster than mere generational turnover would imply. Together with Millennials (born in 1981–96), it already accounts more than half of luxury purchases. Bain, another consultancy, expects an increase to three-quarters by 2025.

The rejuvenation of its clientele has far-reaching consequences for the industry, for the young have different ideas about what makes something luxury. Long-established brands which, like Hermès, stress craftsmanship and heritage have to think about attracting shoppers who care more about self-expression and selfies.

This is leading labels to redefine the role of the creative director. The position has always been critically important to fashion houses. But whereas its occupants used primarily to act as guardians of a brand's image, now they are artistic visionaries with the freedom to redefine it. Alessandro Michele, Gucci's creative director since 2015, has made the 101-year-old label ➤

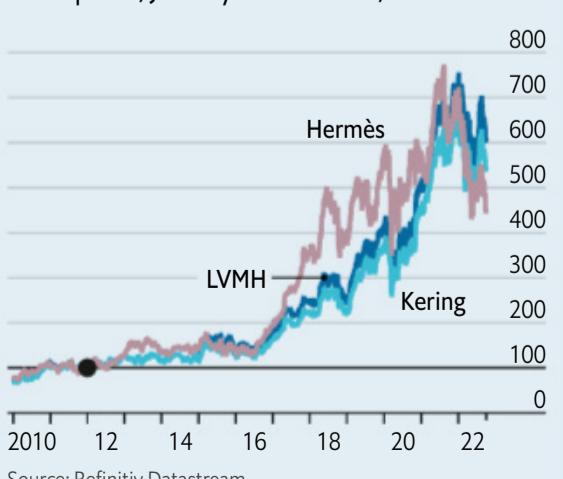
Putting on the glitz

Worldwide personal luxury-goods sales
€bn



Uneven catwalks

Share prices, January 1st 2012=100, € terms



synonymous with his signature animal and jungle motifs. Ideally directors come with a cult following, like Maximilian Davis, a 26-year-old black designer who was appointed to the job at Salvatore Ferragamo in March (in an attempt to modernise, the brand has dropped the eponymous founder's first name from the logo). Brands are also looking for talent beyond couturiers. Virgil Abloh, who until his death last year was Louis Vuitton's creative director for its men's collections, started out designing streetwear.

The creative directors, in turn, are help-

ing redefine what counts as luxury, starting with materials. Fur is out; Kering announced a ban from all its brands last year. Synthetic alternatives are in, even if not all are as high-tech as Coperni's spray-on dress. Stella McCartney, a self-styled vegetarian designer, makes bags from fabric derived from mushrooms rather than leather. In 2019 Prada launched a collection made of yarn recycled from waste, with which it plans to replace all its petroleum-based nylon. The same year Chanel invested in a biotech company developing synthetic silk. All this allows labels to present them-

selves as environmentally sustainable, a selling point with the Gen-Zs.

Besides new materials, luxury is embracing new styles. This summer Gucci launched a collaboration with Adidas, a mass-market sportswear brand. The collection includes trainers, tracksuits and, lest someone worry about things getting too downmarket, a reassuringly lavish \$17,500 dress. Citigroup, a bank, estimates that Balenciaga, long a resolutely haute-couture brand (also part of Kering), now derives 15-20% of sales from sneakers.

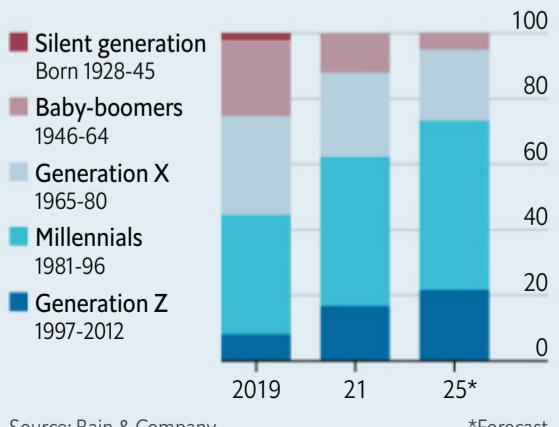
To rope in aspirational shoppers, labels are offering smaller items at correspondingly lower prices. Jacquemus, a fast-growing independent brand, is selling tiny bags; Prada, an Italian house, key rings; and Kering's Bottega Veneta, credit-card holders. Shopping assistants at (Prada-owned) Miu Miu report strong sales of \$200 hair clips, hardly cheap but a steal next to the label's \$2,000-plus dresses.

All this creative and commercial comotion is unnatural for the luxury industry, which "doesn't like radical changes", as Thomas Chauvet of Citigroup points out. The risk of missteps is high. Investments in places like Cape Town, Jakarta, Lagos and Mumbai, or even Austin and Miami, may take years to bear fruit—and they may never catch up with Beijing and Shanghai. To young ears attuned to the slightest hint of greenwashing, sustainability talk can sound rich coming from companies whose products are by definition never a necessity (and which used to incinerate unsold goods rather than discount them and cheapen the brand).

Most important, attracting a new generation of shoppers before their prime earning (and spending) years with lower-cost little luxuries may put off the core super-rich customers, who still covet exclusivity above all. As one luxury chief executive sums it up, products ultimately need to be "more precious, more sophisticated", so that you can sell fewer at higher prices. "That's the equation of luxury." This much hasn't changed. ■

The theory of the athleisure class 3

Worldwide personal luxury-goods sales
By generation, % of total



Source: Bain & Company

Elon Musk and Twitter The odd couple

Twitter's reluctant suitor avoids a trial, but inherits commercial and legal woes



THE DEAL is on! Isn't it? With Elon Musk's courtship of Twitter, it is hard to know. In April the world's richest man agreed to join the social network's board, only to change his mind a week later. He then signed a deal to buy the company, but within days was tweeting insults at its leaders. In July he said the deal was off, prompting Twitter to sue. On October 3rd he said he would buy it after all.

Does Mr Musk mean it this time? Markets think so: Twitter's shares leapt from \$43 to \$52, just shy of Mr Musk's offer of \$54.20. Twitter shareholders had already okayed the takeover and anti-trust regulators see no problem, so the acquisition could close within days.

If it does, Twitter will have won the world's highest-stakes game of chicken. Mr Musk claimed he was backing out because Twitter had more "bots", or fake users, than it had disclosed (it denies this). But he surely regretted spending \$44bn on a company whose value by July had fallen below \$30bn, amid a rout of

tech stocks. Many thought Twitter might offer Mr Musk a discount, to avoid fighting him in court. Instead it is Mr Musk who has blinked.

His case looked doomed: the bots argument was always thin. And whereas Mr Musk might have hoped to pay only a termination fee of \$1bn, the judge repeatedly sided with Twitter in pre-trial hearings, raising expectations that she would order Mr Musk to cough up the full \$44bn should he lose.

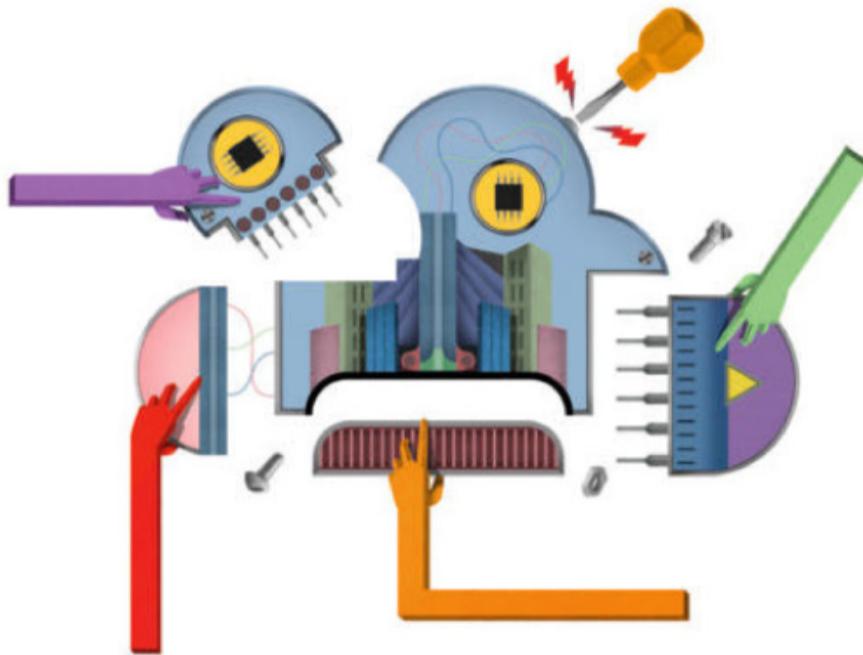
He might have rolled the dice, but the trial's discovery process was proving damaging. On September 28th the court released 33 pages of cringe-worthy text messages between the magnate and his business pals. "You have my sword," promised Jason Calacanis, a would-be Twitter investor, quoting "The Lord of the Rings". "Put me in the game coach!"

If dodging the trial solves one problem for Mr Musk, owning Twitter will present others. Advertising, Twitter's revenue source, has been hit by war in Europe and broken supply chains in Asia. Twitter's staff mistrust Mr Musk and will like him even less when he starts slashing costs. He will need a new chief executive after a public spat with the incumbent, Parag Agrawal, one of few to emerge from the debacle with his reputation intact.

Trouble is brewing in Washington, too. On October 3rd the Supreme Court said it would hear two cases about social media. One, against Google's YouTube, seeks to make tech platforms responsible for the content their algorithms recommend. The other, against Twitter, argues that platforms abet terrorism by hosting sympathetic material. Either case could destroy the way Twitter and other social networks operate. Mr Musk has all this to look forward to—and for only \$44bn.

Schumpeter | The hard edge of the cloud

Data centres are the fiercest front in the chip wars



IT IS EASY to think of the computing cloud as the placeless whereabouts of the latest Netflix series, your Spotify playlists, millions of wanton selfies and your digital assistant. It is even easier to ignore it altogether, at least until Alexa alerts you that your storage space is filling up and helpfully offers to rent you extra room, of which there always appears to be more available. Necessary, disembodied and, for \$9.99 a month, to all intents and purposes limitless: it is the ether of the digital age. This ether, though, has a very unethereal side—the vast data centres where all this information is physically stored and, increasingly, processed by powerful computers known as servers. The semiconductor hardware that makes the servers powerful is fast becoming the hardest-fought front in the battle over the \$600bn global market for computer chips.

Rooms of servers began to replace computer mainframes in the 1990s. Back then, they were owned by companies and installed on their premises. They mostly ran on chips made by IBM and HP, the big tech of the day. These were supplanted by processors from Intel, which by the mid-2000s translated its dominance of PC semiconductors into a near monopoly of the server market. Things started to change once again around a decade ago, when Amazon began selling some of its spare server capacity. Microsoft and Google followed suit and the cloud-computing industry took shape. As the cloud has billowed, so has Intel's competition.

Today the market for server processors is getting bigger, more crowded and more complex. (The business of memory chips, which store data rather than crunch it, is distinct, more commoditised and less lucrative.) Intel, which both designs and manufactures semiconductors, derives 33% of its revenues from server chips, up from 29% in 2016. Specialist chip designers that do not do their own manufacturing are expanding their server-chip businesses even more quickly. Data centres now account for 39% of the sales of Nvidia, up from 7% six years ago. For AMD, another American chip designer, the figure has jumped from 17% to 23% between 2020 and 2021. The big cloud providers, including Amazon and Google, are getting in on the game by designing their own processors, often based on blueprints from Arm, a Japanese-owned firm which licenses off-the-shelf designs that clients can tailor to their needs. The designs are then etched onto silicon by contract

manufacturers, most notably TSMC of Taiwan, which are also increasing their server-chip capacity.

Two factors explain the competitive storm. The first is the market's size and growth. Data-centre chips are a bright spot in an otherwise dark year for the semiconductor industry, which is in the grip of a cyclical downturn that has wiped two-fifths from the market value of the world's chipmakers this year. Whereas sales of PCs and smartphones, and the chips inside them, are expected to fall this year, server demand is forecast to rise. Synergy Research Group, a firm of analysts, expects the cloud giants to build more than 300 new data centres around the world by 2024. The biggest of these could house at least 100,000 servers apiece. That will require an awful lot of chips. According to IDC, another research firm, cloud and on-premise data centres will buy \$71bn-worth of semiconductors in 2022, up from \$42bn in 2019. Sales may grow by nearly half in the next five years or so, twice as fast as the chip industry as a whole. Most of that growth will come from processors rather than memory chips.

The second reason for the upheaval is the growing sophistication of what the cloud does. It no longer acts merely like a large external hard drive. It is bursting with new capabilities that require different chip architectures. In some cases, that means repurposing existing technology. Nvidia's cloud business is built atop its graphics processing units (GPUs), specialised chips used to make computer animation lifelike. It turns out that GPUs, which were first designed in the 1990s to improve video games, are also excellent at running artificial-intelligence (AI) models. Intel recently launched its first set of stand-alone GPUs to compete with Nvidia as well as AMD, which also makes them.

Cumulo-nimble

All-new designs are also emerging. The cloud giants, looking to boost performance and cut costs, are busily adapting Arm's energy-efficient designs. Amazon's Arm-derived Graviton chips are being sown across many of its server farms. Google is doing the same with its Tensor Processing Units. Microsoft is working on custom designs for its Azure cloud. In 2020 Nvidia offered to buy Arm for \$40bn, in large part to beef up its cloud offering. That deal collapsed in February amid antitrust scrutiny, but the company nevertheless plans to launch a general-purpose server chip next year to take on Intel more directly.

One clear winner from the cloud boom is TSMC. It is the only company currently able to manufacture the bleeding-edge processors most sought-after by the cloud providers. Intel hopes that its recent technological advances and entry into the contract-manufacturing business—together with \$52bn in new American subsidies for domestic chipmaking—will help close the gap with the Taiwanese company and win back some of that custom (though the firm's consistently underperforming share price suggests that investors have their doubts).

Ironically for a hardware business, another big chunk of the cloud-chip spoils may end up with firms that offer the best software. Nvidia's popular programming language, CUDA, already makes it easier for developers to boost the performance of its chips. For now, the cloud giants seem content to work with Nvidia rather than try to compete with its specialised software. But they are first and foremost software firms, so this peaceful co-existence may not last for ever. All this should worry incumbents like Intel and Nvidia. For cloud users, it almost certainly means better, cheaper and ever more invisible services. ■

**Crisis watch**

The rumbling draws near

NEW YORK

Financial markets are in trouble. Where will the cracks appear?

IT IS HARD not to feel a sense of foreboding. As the Federal Reserve has tightened policy, asset prices have plunged. Stocks, as measured by the Wilshire 5000 all-cap index, have shed \$12tn of market capitalisation since January. Another \$7tn has been wiped off bonds, which have lost 14% of their value. Some \$2tn of crypto market-cap has vanished over the past year. House prices adjust more slowly, but are falling. Mortgage rates have hit 7%, up from 3% last year. And this is all in America—one of the world's strongest economies (see next story).

Rising rates will slow the American economy and should break the back of inflation. But what else will they break? Since the Federal Reserve raised rates again on September 22nd, global markets have been in turmoil. When the British government announced unfunded tax cuts a day later, fire-sales by pension funds caused the yield on government bonds (or “gilts”) to spiral out of control. Contagion then spread to the American Treasury market,

which is as volatile and illiquid as it was at the start of covid-19 (see Buttonwood). The cost to insure against the default of Credit Suisse, a global bank, has risen sharply. These ructions indicate the world is entering a new phase, in which financial markets no longer just reflect the pain of adjusting to the new economic context—pricing in higher rates and lower growth—but now also spread pain of their own.

The worst pain is felt when financial institutions fail. There are two ways they do so: illiquidity or insolvency. Tighter monetary policy is likely to prompt or reveal both. It is illiquidity that comes first—and it has well and truly arrived. Take the Brit-

ish pension funds. They use a strategy called “liability-driven investing” to hedge against interest-rate moves. When rates shot up they faced margin calls, which they met by selling gilts. Yields moved so fast that this became a fire-sale, with prices spiralling downwards. The Bank of England had to step in to buy bonds. At least American pension funds do not treat their liabilities in the same way, meaning they are unlikely to face similar blow ups.

But pension funds are not the only bond holders that may face liquidity issues. On October 4th the IMF sounded the alarm about open-ended bonds funds, which hold \$41tn in assets, a quarter of financial assets outside the banking system. Investors can sell their holdings once a day, “but it may take fund managers several days to sell assets to meet these redemptions, especially when financial markets are volatile,” warned the IMF. That exposes them to moves in market pricing. Outflows are amassing. Investors have pulled 8% of their assets from these funds this year.

Credit costs are rising quickly, as would be expected in such circumstances. Betsy Graseck of Morgan Stanley, a bank, highlights how abrupt the shift has been: “In the most recent senior-loan-officers survey every single question they asked bankers about financial conditions flipped to tightening, all at once. I have never seen that before.” Yet the real problem is when credit is unavailable—no matter the price. ►

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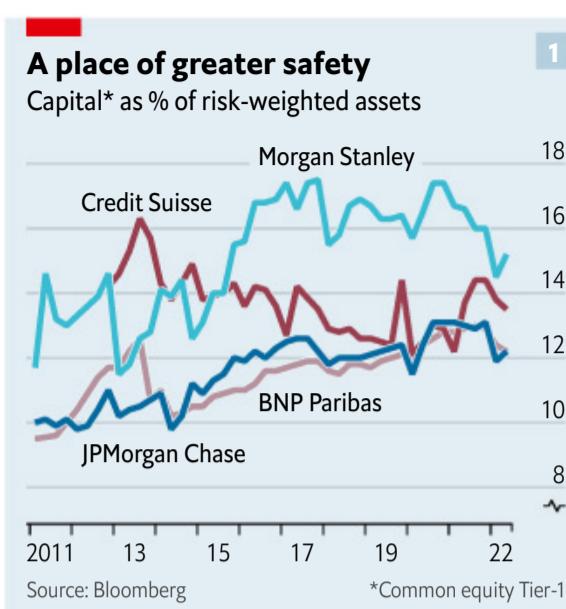
► British traders report there were “no bids” for gilts in the days after the government announced its plans. Measures of liquidity in the Treasury market have deteriorated, too. “We are seeing what happened in March 2020 again. The same Treasury bonds are trading at different prices, bid-ask spreads are widening,” says Darrell Duffie of Stanford University. Strategists at Bank of America describe their index of credit stress as “borderline critical”.

Stockmarkets have been just as turbulent, but they have at least continued to function. “You might not have liked the price you were seeing,” says Tal Cohen of Nasdaq, a stock exchange, “but you were always seeing a price.” He has yet to witness “demand destruction”, the thinning out of the order book that occurs when buyers and sellers begin to pull their orders en masse. This is despite the fact that Bank of America strategists think markets have fallen to levels at which losses may be forcing funds to sell assets to raise cash, accelerating the sell-off.

Illiquidity in credit markets is enough of a problem. It can morph into a total lack of lending. Last week British banks rushed to pull mortgages from their proverbial shelves. If this dynamic gets out of hand it can typically be solved by central banks stepping in and operating as a lenders of last resort, as the Bank of England did. The risk of doing so is not trivial, however. Such an intervention employs quantitative easing, buying securities using central-bank money—the path used by central banks to ease monetary policy. Thus it might undermine faith in central bankers’ commitment to fighting inflation.

Market-watchers now wonder whether all this pressure will lead to insolvencies, which happen when the value of an institution’s assets falls below its liabilities. It is the fate which befell insurers, including AIG, and banks, including Lehman Brothers, in 2008. Homeowners across America defaulted on their loans, meaning mortgage-backed securities, assets many firms had bought, were no longer worth anything close to their original purchase price. Insolvency is fatal, and only resolvable by bankruptcy or bail-outs.

The current tension is the first big test of a new-look financial system. Regulators have sought to make systemically important institutions—as Lehman Brothers surely would have been designated—too safe to fail. They have done this by compelling firms designated as such to follow stringent capital, liquidity and risk-taking rules, as well as by stress-testing them in hypothetical economic breakdowns. Regu-



lators have also tried to reduce opacity and counterparty risk—the channels through which fears about Lehman morphed into suspicion of the entire banking system.

The result is that there are layers of protection around the financial system’s most important institutions. At the heart of markets are clearing houses, which settle trades in stocks and derivatives between their members (mostly big banks). To join a clearing house a member must post an “initial margin” in case of default; that margin can climb if markets move. The system is stress-tested against the default of even the clearing houses’ largest members, such as JPMorgan Chase or Citigroup.

The banks, which stand between the clearing houses and other financial institutions, are also in better shape. The issues that precipitated the fall of Lehman Brothers were that the firm did not have enough capital (at times leading up to its demise it held capital worth just 3% of assets), had taken on too much borrowing (holding debt worth 30 times its equity), had a dubious business model (making enormous bets on the American housing market), and had taken on vast amounts of risk.

Today there are 30 banks designated as systemically important by regulators, some 28 of which are in the KBW Nasdaq Global Bank Index, which tracks bank

stocks. These 28 banks are funded with capital worth 13% of their risk-weighted assets (see chart 1), and have debt worth five times their equity. Despite this, they do not get an entirely clean bill of health: some business models look fragile. On average the banks returned profits worth 9% of their equity last quarter, but the worst (other than Credit Suisse) returned just 4%. It is hard to know whether any have taken huge risks.

“American banks are unequivocally much stronger,” says a bank boss. Few are making such statements about European banks, and certainly nobody is about Credit Suisse. The firm had a return on equity of minus 14% last quarter, its share price has tumbled and its market capitalisation is now just \$12bn. Yet even Credit Suisse is not near a Lehman-style collapse. It is funded with capital worth 14% of its risk-weighted assets. Although Credit Suisse credit-default swaps, which act like insurance against default, have leapt (see chart 2), they still suggest the chance of default is in the low to mid-single digits.

Big banks head into the new era fortified. But the regulation that has strengthened their defences has also diminished them. High capital demands make it hard for them to compete. Because they must add risk weights to all kinds of assets, they now hold only boring stuff. Leverage ratios constrain their size. By contrast, financial institutions that are not systemically important are unencumbered by these rules.

The impact can be seen on balance sheets. In 2010, after the financial crisis, banks held \$115trn of financial assets. Other financial institutions, such as pension funds, insurers and alternative asset managers, held roughly the same amount. In the years since, the non-banks’ slice has grown. By the end of 2020 they held assets worth \$227trn, a quarter more than the banks. Similarly, four-fifths of American mortgages came from banks before the financial crisis. Today only around half do, and most of these are sold on to investors.

Thus the dodgy stuff is probably in ►



Correction: Two weeks ago in an article on institutional investors (“Hot property”) we said that they owned American family rental homes worth \$4.7trn. In fact, that is the value of all the country’s family rental homes. Sorry.

► other institutions. Which ones? In 2007 problems started in real estate. This time Americans have far less mortgage debt, but the sheer pace of price growth in residential housing suggests some buyers will face difficulties. Indeed, three-quarters of those who bought in the past two years regret their decision. Other forms of real estate are also vulnerable. Firms are downsizing their offices to adapt to working from home, posing problems for highly leveraged commercial developers. Charles Bendit of Taconic Partners, a developer in New York, notes that lots have opted for floating-rate debt, meaning their debt-servicing costs have already doubled.

Michael Burry, who shot to fame in 2008 after shorting mortgage-backed securities, is concerned by unsecured consumer finance given the growth of “buy-now-pay-later” providers and the ease with which consumers have been able to tap credit-card lines. Goldman Sachs, a bank, ventured into consumer credit in 2019, helping to launch the Apple card. It now has an unusually high default rate of 3% over the past six months. Ms Graseck of Morgan Stanley points out that, because this is an interest rate-shock driven cycle, trouble will probably first arrive in the loans that reprice to higher rates quickly: “Floating rate debt, like credit cards, is immediate, then commercial real estate, autos and eventually mortgages.”

One of the fastest-growing parts of private credit has been that offered to software-service firms, notes Seth Bernstein, boss of AllianceBernstein, an asset manager. “These have been fantastic cash machines, because they have subscription models.” The cash flows they provide have been used to secure financing, meaning many firms are now highly leveraged. They are also untested in a downturn. Mr Bernstein compares the situation to the securitisation of housing debt, in that there is very little information available about the debt.

It is companies more broadly that appear most at risk. They owe debts worth 80% of GDP, compared with 65% in 2007. A third of American corporate debt is rated BBB, the lowest investment-grade rating. Firms downgraded any further are not eligible for many investors’ portfolios. Defaults are now arriving. Bausch Health, a health-care provider, gave up the ghost on September 30th, taking the default rate for high-yield issuers to its highest since June 2020. There is little to no appetite for fresh high-yield debt—banks that agreed to fund Elon Musk’s Twitter takeover in April will struggle to issue it without taking losses.

Who holds these bad assets? Financial firms that have grown lots over the past 15 years are the first place to look. Alternative assets, which include private equity, real estate and hedge funds, have grown from just 8% of total financial assets in 2006 to

15% now. They have taken paper losses of 11% on their investments this year, a much smaller fall than in the public markets. This might reflect sensible investment—or an unwillingness to adjust to reality.

Firms that have escaped the full weight of regulation are another place to look. The Financial Stability and Oversight Council, an outfit established by the Treasury to watch important financial institutions, tried to claim oversight of the big insurance companies, including MetLife, AIG and Prudential. But MetLife won a lawsuit to have the designation overturned, and the council then rescinded its designations of the rest.

If lots of investors are washed out, as they would be if a non-bank financial institution failed, well, “who cares?” quips one bank boss. Given reforms since the last financial crisis, it seems unlikely that there will be failures of institutions that are so big and important that governments need to bail them out. The systemic institutions will survive another event like the blow-ups of the hedge funds LTCM (in 1998) and Archegos (in 2021). But that does not make life any easier for central banks. It is their job to tighten policy enough to cool inflation without causing seriously disruptive activity in financial markets. And it is looking increasingly difficult to do both. ■

Inflation

Overmighty

WASHINGTON, DC

America’s economy is too strong for its own good

TWO DAYS after the latest interest-rate rise, the seven governors of the Federal Reserve met with some businessfolk. Any misgivings about the effects of tighter monetary policy would have been quickly dispelled. Cara Walton of Harbour Results, a consultancy, spoke of a plastics processor who hired 14 new employees, only for a mere three to show up on their first day (and one of those to quit before lunch). Cheetie Kumar, a restaurateur, said her peers were struggling to make rent as food and labour bills mounted. Tom Henning of Cash-Wa, a distribution company, explained his firm was passing costs onto customers. Demand was holding up, he said, thanks to the amount of money

“floating out there in the economy”.

Misgivings may, however, have crept back in as the governors watched the markets over the past fortnight. The central bank’s goal is to tame inflation, which is running at more than 8% year on year, just shy of a four-decade high. The realisation that it is still far from that goal, and that monetary tightening will thus continue, is causing havoc. American stocks have fallen for three consecutive quarters, and sharply recently. Bond prices are tumbling, reflecting tremors in the credit markets. The ratcheting up of rates in America is driving the dollar’s appreciation, adding to inflationary pressure elsewhere and impelling other central banks to follow the Fed’s lead, no matter the state of their economies. On September 30th Lael Brainard, the Fed’s vice chair, called for her fellow governors to proceed “deliberately”, a word denoting caution in the central bank’s argot. She also said the Fed would take its international impact into account.

This was an acknowledgment of the risks of the current approach—it was not an indication that the central bank is about to change tack. The Fed simply cannot ignore the strength of the domestic economy. Even with the financial upheaval, America’s economy is straining at its limits in critical dimensions. In the labour market there are nearly two jobs available for every unemployed person. Wages, up roughly 7% compared with a year earlier, are rising at their fastest pace since the early 1980s, according to the Atlanta Fed. Although house prices declined month on month in August, new home sales jumped, confounding expectations. Corporate pro-



The Fed takes aim

Tighter and tighter



Sources: Bureau of Labour Statistics; Federal Reserve

► fits are at their highest in decades as a share of GDP. Despite higher rates, consumer confidence has been climbing.

This constitutes a serious challenge for America's central bankers. The more resilient the economy, the harder they will have to push to rein in inflation. There is always a lag between shifts in monetary policy and their impact on real activity; recent rate rises will inevitably take a toll on the American economy over the coming year. Yet additional jumbo rate rises remain on the cards (see chart 1), heightening the risk of a monetary mistake and an eventual recession. To get a sense of why, despite the brewing trouble, the Fed is still hawkish, it is crucial to understand why the economy has remained insulated this far.

Fuel in the tank

The most obvious factor explaining this insulation also explains America's inflation: the government was a lot more aggressive than others in stimulating the economy during the covid-19 pandemic. America's primary budget deficit—the difference between government spending and revenues, excluding interest payments—averaged 10.5% in 2020 and 2021, more than triple its level before the pandemic and higher than all other big rich countries.

Formally, this stimulus ended some time ago. The last big short-term fiscal package was President Joe Biden's American Rescue Plan (ARP) in March last year. But in reality, stimulus is still working its way through the system. Hefty dollops of ARP cash are only just hitting the economy. States were granted about \$200bn in direct emergency funding. In August, they had yet to draw on a fifth of that. And they are still doling out the funding they have claimed. In the past couple of weeks alone, Louisville, Kentucky announced it would spend ARP funds on affordable housing; Monroe County, New York directed some of its money to health services; and Cumberland County, Tennessee splashed out on water and sewer projects.

Even more important is how the stimu-

Federal Reserve, forecast Federal fund rates[†], % By date forecast made



*Seasonally adjusted measures
†Median projection of Fed members and regional presidents

lus continues to puff up the balance sheets of both people and firms. Households sit on about \$2trn in excess savings (relative to their pre-pandemic norm). They are now beginning to eat into this buffer—savings rates are well down this year. But the reserves have enabled them to spend at a decent clip even as inflation has eroded their incomes. It has been a similar story for businesses. At the start of the third quarter, they had about \$2.8trn of cash in hand, down from the start of the year but about a quarter more than before the pandemic. They have also taken advantage of robust demand to pass on inflated input costs to customers, protecting their margins and then some. Post-tax corporate profits reached 12% of GDP in the second quarter, the highest since at least the 1940s. So long as companies are making profits, they look to hire, not fire, workers.

Nor has growth been hindered, as it has in Europe, by soaring energy costs following Russia's invasion of Ukraine. Indeed, America has, in one sense, benefited from the invasion. Exports of both crude oil and petroleum products are at an all-time high. In net terms America has exported about 1m barrels a day of crude and petroleum products since Russia's invasion of Ukraine—all the more remarkable given that America was a net importer to the tune of

10m barrels a day at the start of the century. The boom in oil-export earnings has contributed to a narrowing of America's trade deficit, which may flatter its growth figures over the rest of this year.

American consumers have been considerably less enthusiastic about higher prices at the pump. If they compared themselves with their peers in Europe, they might be more sanguine. Natural-gas prices have historically been a smidgen higher in Europe than America. These days they are about five times higher. Europe has been gradually cut off from Russia, its main gas supplier; America is awash with its own energy. It has only limited liquefaction capacity, which is needed for exports, meaning the gas it releases from the ground is mostly consumed domestically. In Europe monetary tightening is compounded by the negative shock from soaring energy prices, which is why forecasters expect a deeper recession. In America the Fed can more or less look beyond the ructions in the energy markets.

House correction

Sooner or later, continued rate rises will drag on the American economy. That, after all, is the Fed's intention. The most rate-sensitive sectors are already being hit. Rates on 30-year fixed mortgages have reached 7%, the highest in more than a decade. A steep rise in credit-card balances suggests that some households are starting to exhaust their savings. Higher interest rates will only make debts more onerous. Corporate profits also look set to flag—one reason for the recent stock-market plunge.

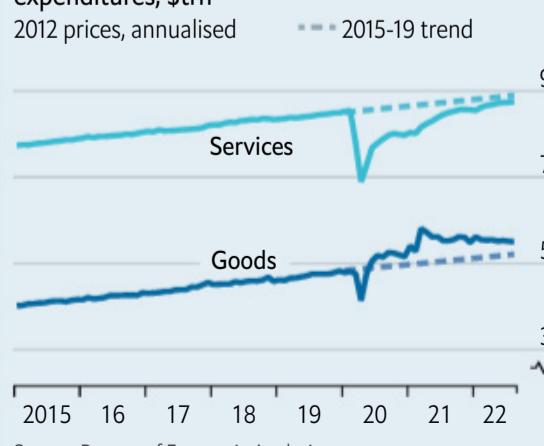
Nevertheless, a slow, steady return to normality after covid acts as something of a buffer against these dangers. Take the property market. The inventory of homes available for sale remains very low by historical standards, in part because the supply of building materials, just like other goods, has been badly constrained over the past few years. A leap in mortgage rates would usually be expected to lead to a precipitous slowdown in construction activity. This time, though, builders are still building, trying to work through the backlog of unfinished homes.

Meanwhile, goods consumption shot up during the pandemic as people bought new sofas, bigger televisions and fancier exercise bikes for their homes. Now they are returning to cruises and concerts (see chart 2). This shift matters for the job market because services tend to be more labour-intensive. Even if consumers spend less in aggregate, they are spending more on the kinds of things that require lots of workers, boosting employment.

Spread over the entire economy, this is a powerful trend. America's workforce today is roughly the same size as in 2019. Its composition is, however, very different. ►

Back to life

United States, personal-consumption expenditures, \$trn
2012 prices, annualised



Source: Bureau of Economic Analysis

Buttonwood Let them trade bonds

The world's most important financial market is not fit for purpose

EVERYONE WANTS to trade Treasuries. Big banks hold them for liquidity management, pension funds own them for long-term yields, hedge funds use them to bet on the economy, individuals' savings are stored in them and central banks use them to manage foreign-exchange reserves. The market for Treasuries, most of the time, is deep and liquid. Some \$640bn of government bonds change hands each day, at prices that become the benchmark risk-free rate by which all financial instruments are valued and lending rates set.

So why do they sometimes not change hands? Several times in the recent past the market has broken down. In 2014 a "flash rally" led to wild swings in prices, for no clear reason. In 2019 rates spiked in the "repo" market, in which Treasuries can be swapped for cash overnight. In March 2020 extreme illiquidity led yields to spike, even though in times of panic they usually fall as investors rush to safe assets. Now issues are cropping up again: measures of volatility have jumped to levels last seen in 2020 and bid-ask spreads are widening.

The problem stems from the fact that the Treasury market has doubled in size over the past decade, even as its infrastructure has shrunk. Trading is carried out by primary dealers, designated institutions which are mostly big banks—and regulatory requirements now constrain them. The leverage ratio, which limits the value of assets banks can hold relative to their capital, does not care whether the asset is super-safe Treasuries or subprime mortgage debt. Thus when a client calls asking to sell a bond, banks must find a client who wants to buy it, rather than holding it as inventory for when another client calls. In times of stress, this system gets overwhelmed.

The fixes fall into three buckets: let the banks trade more bonds with investors, let investors trade more bonds with each other, or let investors trade or swap more bonds with the Federal Reserve.

Start with letting the banks do more. The solution would be to exempt Treasuries and other safe assets, like bank reserves, from inclusion in leverage ratios. The Fed and other bank regulators did this for a year from March 2020 to help ease market chaos. The logic behind the move was sound enough. Treasuries are not risky assets, likely to default, and so they do not require much capital to be held against them. Still, the leverage ratio is appealing because it is simple to administer and cannot be gamed. And with Democratic bank regulators in charge, who do not want to appear to be undoing financial regulation, the idea is a non-starter.

How about letting investors deal more with one another? Portfolio managers at PIMCO, a large bond investment firm, have proposed that investors should trade on a platform where asset managers, dealers and non-bank liquidity providers can



trade on a "level playing field, with equal access to information", akin to how stocks are traded. This could be good, if it is actually possible. Matching buyers and sellers of Treasuries is harder than matching buyers and sellers of stocks. All shares in Microsoft are the same; there are dozens of Treasuries that have roughly five years to maturity.

A final fix would be to let investors do more with the Fed. Last year the central bank created a standing repo facility, which allows a Treasury to be swapped overnight for cash. But the facility is only for primary dealers, which do not always pass on the liquidity. Opening it to more participants would address this problem. It would also expose the Fed to a range of riskier counterparties—but that could be mitigated by requiring firms to swap a greater value in Treasuries than the central bank gives out in cash.

The problem is not a shortage of plausible reforms. It is that none of them have been implemented. The heady bull market has collided with the reality of high inflation and much higher interest rates. Financial markets have already entered a new phase in which volatility, stress and fear have returned. Any grand plans to overhaul the Treasury market cannot be implemented on the fly, in the midst of a burgeoning crisis.

If the Treasury market seizes up again—as the market for British government bonds did after ministers announced a package of unfunded tax cuts on September 23rd—the task of fixing it will fall on the Fed and its bond-buying schemes. Relaunching asset purchases at the same time as raising rates to combat inflation would be very uncomfortable. Since regulators failed to fix the Treasury market when they had the chance, they may end up with little choice.

► There are 1m more workers in transport and warehousing, reflecting the rise and rise of online shopping. At the other end of the spectrum, more than 1m workers have left the leisure and hospitality sectors over the past three years. According to the National Restaurant Association, a lobby group, roughly two in three restaurants are understaffed. Thus the slowdown in growth may lead to a smaller rise in unemployment than would otherwise have been expected. Companies suffering from worker shortages have little fat to trim.

In one sense, this resilience is to be wel-

comed. It implies that a recession, if one arrives, is likely to be mild. Yet the Fed is determined to get inflation down, and is focused on wage growth as a proxy for underlying price pressures. Continued labour-market tightness therefore inclines the central bank towards a tougher, longer bout of monetary tightening.

The Fed has already raised rates by a full three percentage points this year, its steepest increase in four decades. As turmoil sweeps through financial markets, some economists have criticised the central bank for going too far, too fast. Some Fed

officials also seem to be getting cold feet. But their hawkish colleagues have the upper hand after a year of upside surprises. The baseline expectation among investors is that the Fed will deliver at least another percentage point of rate increases before the end of the year. That may well be a conservative guess. Even after half a year of monetary tightening and a slowdown in growth, the economy still suffers from a shortfall of supply and a surfeit of demand—most especially for workers. In the face of such a mismatch, the only direction for interest rates is up. ■

Commodities

Striking oil producers

In a move that may backfire, OPEC defies Joe Biden with a big output cut

THE ORGANISATION of the Petroleum Exporting Countries (OPEC) is sometimes called the oil market's central bank. Every month the cartel and its allies, a group of 23 countries that produce 40% of the world's oil, meet to decide on production targets. The aim is to keep prices high and stable. But just as central-bank governors argue about the speed of rate rises, members of OPEC+, as the wider group is known, disagree on how fast to turn the spigots.

The summit on October 5th was a short one, but it nevertheless produced a controversial decision. Ending a series of online meetings and timid tweaks to output, OPEC+—which includes Russia—met in person for the first time since the covid-19 pandemic. Emerging from a Viennese boardroom, ministers confirmed that they would cut production by 2m barrels a day (b/d), an amount equivalent to 2% of the world's total output. After months of market volatility and missed targets, the cartel is determined to restore its credibility and regain control of the oil price.

Members are worried about falling demand. Brent crude, the global benchmark, has dropped to \$93 a barrel, down from \$125 in June. Pricey petrol has led to lower consumption. Europe's gas crunch, China's covid policies and property troubles, and rising interest rates augur a global recession. The strong dollar, in which oil prices are denominated, makes the fuel still less affordable outside America. OPEC+ does not explicitly say so, but its members want a floor under the price at a time when increased spending at home implies a higher break-even price. Experts place that floor at between \$80 and \$100, compared with \$70 to \$80 before covid.

The cartel has rarely had such an opportunity to set prices. No country apart from its biggest members has the capacity to increase output fast, and global stocks are low. Crude inventories in the OECD, a club of mostly rich countries, remain well below their five-year average; China is running down its stockpiles in a bid to satiate its thirsty refiners. The volume of oil on water may be rising, but that is only thanks to the longer tanker journeys that are required as the market adjusts to sanctions, rather than growth in floating storage, notes Giovanni Serio of Vitol, a trader.

The problem OPEC+ faces is that its credibility is in tatters. Even the cut announced on October 5th is not what it

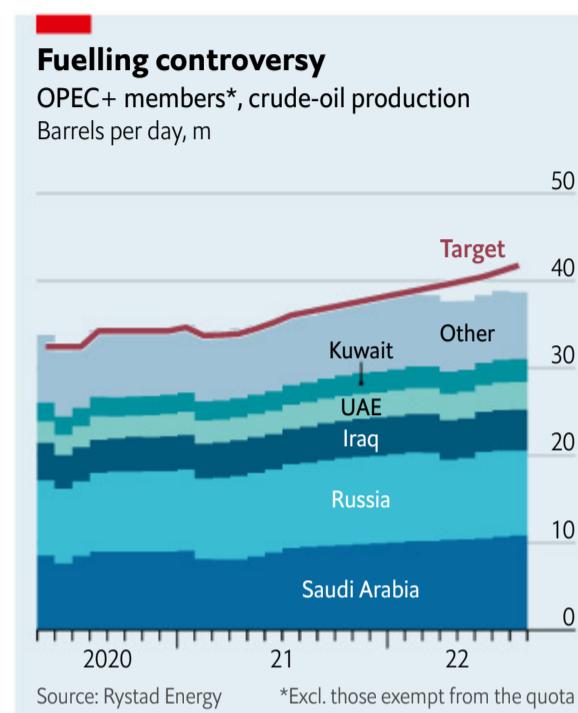
OPEC analyst now at Rystad Energy, a consultancy, reckons that Brent could surpass \$100 by the end of the year. After the meeting, the Saudi energy minister said that, unless the market changes, the supply curbs will remain until the end of 2023.

But the decision is not without risk. OPEC+'s market share is yet to recover from huge cuts it made in 2020 to shore up prices amid a collapse in demand. Trimming production again may further erode the cartel's market share. The cut is also a snub to President Joe Biden, who recently visited Saudi Arabia in an attempt to cajole it into pumping more, before tough midterm elections next month. The White House accused the cartel of "aligning with Russia", and announced that America would release another 10m barrels from its strategic reserve next month. The decision also provides fuel to NOPEC, a congressional bill that would allow the cartel to be sued under antitrust law, although it will have to overcome opposition from lawmakers and oil firms who fear tit-for-tat measures.

OPEC+'s loss of market share should be partly reversed when it eventually cranks up output again. Thus it is the decision's impact on demand, with higher prices likely to further reduce consumer appetite, that will probably do more damage to OPEC+'s position. Cutting output in a tight market also creates more volatility, not less—and the extra uncertainty will discourage investors and lenders, reducing liquidity in the paper oil markets.

The decision may also reignite diplomatic tensions within the cartel. Since quotas no longer reflect actual output, the latest cuts are being shouldered by just a handful of members—Iraq, Kuwait, Saudi Arabia and the UAE—that were already prevented from producing quite as much as they ideally would. The UAE, which secured a small increase in July but plans to expand its production capacity from 4m b/d today to 5m b/d in 2025, will almost certainly agitate for a rejig in future negotiations. This will be resisted by underperformers such as Angola and Nigeria, says Robin Mills of Qamar Energy, another consultancy, in the hope that they can one day rebuild their capacity.

Ironically, Russia could offer the cartel a solution. The country has long been a staunch advocate of higher production. But its output is now likely to fall, both soon, as a result of a European embargo set to start in December, and in the long run, as sanctions prevent it from getting access to vital partners, people and parts. Saudi Arabia and the UAE are in bed with "a weakening business partner", says Karen Young of Columbia University. Russia will be reluctant to give away some of its quota. The question is whether, in a world where it has ever fewer friends, doing so is a price worth paying to remain inside the tent. ■



seems. Its members have failed to invest in production, leading to a gap between target and actual output (see chart). In reality the cut will apply only to members that are hitting or are near to their targets. Ehsan Khoman of MUFG, a bank, expects the revision to deliver a real cut of up to 1.1m b/d.

The tactic is nevertheless working—at least for now. The oil price has risen by 11% since September 26th, when rumours of the cartel's plans first emerged. That makes the reduction worthwhile even for Saudi Arabia, which will trim its output by 5%, but ought to benefit from an increase in price twice the size. Jorge León, a former



A rigged market

BEATING INFLATION: A THREE-POINT PLAN TO MITIGATE COST OF GOODS SOLD

Inflation has strained budgets everywhere. With large year-over-year price hikes and inflation likely to stay high for some time, consumers are contending with much more expensive goods and services. This price increase hasn't affected shoppers alone; companies are grappling with massive increases in input prices for goods — which they typically pass on to consumers.

Shutdowns, container and chip shortages, rising labor rates, geopolitical uncertainties — it was difficult to see these disruptions coming. But now that you know, you have two options: 1) Consider inflation as transitory and don't do anything about it, or 2) Be better prepared to tackle these uncertainties.

GEP proposes a three-point action plan to make your organization combat-ready and keep the cost of goods sold (COGS) in check:

1. Acceptance: Aim for low impact, not no impact

Price increases may be unavoidable, but you can anticipate their extent. Predictive analytics and should-cost modeling are powerful tools that firms can leverage to answer the "what," "where," "when" and "how much" when inflation is a concern. For instance, GEP helped a leading chemicals company by building a should-cost model for a specialty chemical, which identified a cost-avoidance opportunity through forward buying of certain commodities highly impacted by inflation, such as sunflower oil. Locking in prices for these commodities for the rest of the year has helped the firm beat market volatility in the near term.

2. Awareness: Be prudent with expenditure by knowing expenditure

To increase spend visibility, invest in establishing processes and policies that improve data and analytics. This unlocks potential savings opportunities through SKU substitution, rationalization and improved compliance (through monitoring). For instance, through analytics, GEP helped a restaurant chain identify and assess large-scale proliferation of SKUs across its 200+ stores. By eliminating noncompliant purchases, the company realized over 5% savings on several ingredients amid hyperinflation.

3. Action: Don't negotiate price — negotiate partnerships

While enough buyers might be willing to pay a higher price, not everyone can make long-term partnerships attractive. If you're in a bind, your supplier may be having it worse. Procurement can ease uncertainty for them through collaboration. Daimler, for instance, allays its suppliers' fears through cost participation for capacity expansions and compensatory payments.

While this period of inflation will ease, there will always be uncertainty. Companies can beat inflation and COGS fluctuations with diligence and intelligent, data-driven processes and technology. The future prices of raw materials are difficult to estimate now but, through predictive analytics, companies can manage their input prices and COGS as well as make accurate earnings estimates.



Price increases may be unavoidable, but you can anticipate their extent. Predictive analytics and should-cost modeling are powerful tools that firms can leverage to answer the "what," "where," "when" and "how much" when inflation is a concern.

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Free exchange | China gives up the fight

Why its policymakers are willing to let the yuan decline against the dollar



IN 1988 PAUL KRUGMAN, a Nobel-prizewinning economist, wrote that it was "fairly likely" the world would soon shift away from freely floating exchange rates. Governments would instead adopt a system of "broad target zones", promising to stop their currencies wandering too far above or below a fixed exchange rate.

He was wrong—but a version of this future can be seen in China. Each morning its central bank sets an exchange rate for the yuan known as the "fix". China's currency can float 2% above or below this rate each day. The zone is narrower than Mr Krugman expected and its mid-point moves each morning in discrete steps. Yet it is similar enough that economists at Hamburg University have called it a staircase-shaped "moving Krugman band system".

The stairs have been steep of late. Since mid-April, the yuan has declined by about 10% against the dollar; a decline slowed (but not stopped) by the morning fix. On its way down, the currency has passed psychologically important thresholds. In August it crossed 6.8 to the dollar, close to the level at which the yuan was pegged after the global financial crisis of 2008-09. On September 26th the central bank set the fix at more than seven yuan to the dollar for the first time since the early stages of the covid-19 pandemic.

The reason for this descent is clear. America's Federal Reserve has raised interest rates aggressively to curb inflation. To stabilise the yuan, China's central bank could raise interest rates in tandem. But tighter monetary policy would be at odds with the needs of its weak economy, which is hampered by a property slump and draconian covid controls.

What is less clear is where the bottom of the staircase lies, and how sure-footed the descent will be. Some analysts fear a repeat of 2015, when a poorly executed devaluation of the yuan provoked capital outflows that further undermined the currency. But a re-run is unlikely. The yuan is no longer overvalued. Its target zone is better managed and its capital controls are better enforced. In the past China kept its currency anchored to the dollar, because it feared that a conspicuous drop would trigger a run on its currency. The yuan's decline against the dollar is now less likely to become disorderly. For that reason, China will try less hard to prevent it.

In assessing China's currency choices, economists sometimes invoke the "impossible trinity". A country might want exchange-

rate stability, monetary independence and free capital flows, but it can have only two of these. Rich countries typically make clear-cut choices. As Joshua Aizenman of the University of Southern California has pointed out, emerging economies are more ambivalent. Many have adopted mixed positions, embracing none of the objectives in full, nor rejecting any entirely. By imposing limited controls on capital, say, they can provide some stability to their exchange rate, without entirely forgoing monetary independence.

China has clung to exchange-rate stability more than most. The yuan has been less volatile than India's rupee, let alone South Africa's rand or Brazil's real. But China has also adopted tighter capital controls, especially since 2015. This can be inefficient and inconvenient. It is, however, not outlawed by the impossible trinity.

China can also take comfort from the economic fundamentals. Despite its insulation from market forces, its exchange rate is reasonably well priced. Adjusted for inflation, it is about 10% below its fair value, according to the Institute of International Finance. It has remained stable this year against a broader basket of currencies. If only the fundamentals applied, it ought not to plummet.

Unfortunately, financial markets are not respectful of such calculations. "Few will heed fundamentals...in times of turbulence and turmoil," as Zhou Xiaochuan, then China's central-bank governor, put it in 2016. Expectations of yuan declines can become self-fulfilling, regardless of the underlying state of the economy.

Mr Krugman showed that target zones, if credible, could ameliorate this problem, by converting speculators into stabilisers. As the exchange rate reaches the bottom of the zone, its room for further declines is limited. Knowing that, speculators would push it back to the middle. The mere prospect of intervention by the authorities could make actual intervention unnecessary.

That did not work in China in 2015 partly because of the way its stairs were built. Each morning's fix was supposed to reflect the currency's value at the end of the previous trading session. Thus any speculative declines during trading could be embedded in the following morning's fix. Within any single day, the zone might constrain the speculators. But from one day to the next, the speculators could move the zone.

In need of a fix

To restore stability and credibility, China sold more than \$700bn of foreign-exchange reserves in 2015-16 and enforced its capital controls more zealously. It introduced a mysterious "counter-cyclical factor" in its calculation of the morning fix, intended to offset any speculative momentum. It also imposed a reserve requirement on banks that made it costlier to bet against the yuan. That requirement was removed in 2020, only to be restored last month.

Having taken these measures, China now seems more confident that the yuan can fall against the dollar without the fall becoming self-reinforcing. For this reason, the yuan now seems less anchored to America's currency. Economists have looked at how faithfully the yuan mimics movements in the dollar against other currencies. In the dark days of 2015, it moved one to one. In recent years, the dollar's influence has steadily declined, according to Chen Zhang of the National University of Singapore and colleagues, falling from one to about 0.3.

China might cling more tightly to the dollar in a period of great financial stress. But it is otherwise unlikely to intervene heavily to defend any particular value of the yuan to the dollar. The country's policymakers do not mind if the yuan walks steadily down the stairs. Just as long as it does not tumble. ■



The 2022 Nobel science prizes

To the winners, the spoils

This year's awards recognise work on fossil human DNA, the mysteries of quantum entanglement, and "click" chemistry

THE FIRST Nobel prize to be announced each year is often referred to as the "Nobel prize for medicine". But that is not its real name. It is actually the prize for physiology or medicine. And this year's award was firmly on the physiological side of the divide. The winner—and there was only one, rather than the usual two or three—was Svante Paabo, a man who has the rare distinction of having invented an entire scientific discipline, palaeogenomics, more or less by himself.

Palaeogenomics is the study of the genomes of ancient, often extinct, biological species. In particular, Dr Paabo concentrated on ancient members of the genus *Homo*. His early work, starting in 1985, was on Egyptian mummies. Mummification in Egypt began about 4,600 years ago—the blink of an eye in palaeontological terms—and the desert climate of that country is particularly conducive to the preservation of DNA. So this was a good place to begin. But gradually, as genetic-sequencing techniques improved, he was able to push his work backward in time.

His first big breakthrough came in 1997,

when he sequenced mitochondrial DNA from Neanderthals, a human species that lived in Europe and western Asia, and became extinct about 30,000 years ago. A cell's mitochondria are its power packs, extracting energy from glucose and transferring it to a molecule called ATP, which then drives metabolic reactions. Because they derive from bacteria that became symbiotic about 2bn years ago with cells ancestral to animals, plants and so on, mitochondria have their own DNA, separate from that in a cell's nucleus. And because there are lots of them in a cell, whereas there is only one nucleus, their DNA is much more abundant, and therefore more likely to survive in detectable quantities.

Dr Paabo's analysis showed that Neanderthal mitochondrial DNA is indeed different from that of *Homo sapiens*. This provided, through estimates based on how

quickly such DNA evolves, an estimate (800,000 years ago) of when the two species diverged. The real prize, however, came in 2009, when he and his colleagues at the Max Planck Institute for Evolutionary Anthropology, in Leipzig, Germany, which he helped to found, announced a sequence of the nuclear DNA of Neanderthals—for technological improvements meant that the definition of "detectable quantities" had by then changed. That, together with successor sequences, has permitted the compilation of a catalogue of genes found in *Homo sapiens* but not *Homo neanderthalensis*. And within that catalogue, presumably, lies the explanation, not yet elucidated, of what makes *Homo sapiens* such an extraordinary species.

The biggest surprise of Dr Paabo's career, though, was probably the identification, purely from its DNA, of an entire, new species, *Homo denisova*. The original genome of this species was extracted from a finger bone found in a cave in the Altai mountains of Russia. Denisovans were related more closely to Neanderthals than to *Homo sapiens*, and subsequent analysis has shown that the two sometimes interbred. More relevant from a present-day perspective is that both also interbred with *Homo sapiens* when that African species began turning up in their European and Asiatic homelands 70,000 years or so ago. The traces are still there, with modern Europeans having 1-2% of Neanderthal DNA and some people in Asia and Australasia as much as 6% of Denisovan DNA.

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► Dr Paabo's career is, then, a tour de force of scientific detection. And there is one other thing. Though he spent much of his career in Germany, he is Swedish. Alfred Nobel's will specified, "It is my express wish that when awarding the prizes, no consideration be given to nationality, but that the prize be awarded to the worthiest person, whether or not they are Scandinavian." It was, nevertheless, hard not to notice a slight swelling of patriotic pride when Thomas Perlmann, secretary of the Karolinska Institute's Nobel Assembly, read out the announcement.

A tangled puzzle

The physics prize went to a trio of scientists whose insights into the fundamentals of quantum mechanics have set the stage for a new era of technology. Quantum computers, quantum networks and secure quantum cryptography are all rooted in experiments carried out, over several decades, by Alain Aspect, John Clauser and Anton Zeilinger.

Their work revolves around a phenomenon called quantum entanglement, in which pairs of particles become correlated with each other so that they behave as if they were single units. This leads to counterintuitive effects—changing the properties of one particle in such an entangled pair will, for example, immediately change the other, no matter how far apart the particles are. They could be right next to each other, or at opposite ends of the galaxy.

Albert Einstein—who was no fan of the probabilistic nature of quantum mechanics—described entanglement as "spooky action at a distance". He and others were concerned that it seemed to break the rules of special relativity, which stipulate that nothing can travel faster than the speed of light. If entangled particles were separated by a great distance, he argued, how could information apparently travel between them instantaneously?

In 1935 Einstein and two colleagues, Boris Podolsky and Nathan Rosen, proposed a thought experiment (subsequently known as the "EPR paradox") to probe whether the weird behaviour seen in entanglement implied that quantum mechanics was not a complete description of reality. Perhaps particles also carried with them hidden information, not described by quantum mechanics, about how they might act during experiments or when they were measured. In 1964 John Stewart Bell, a physicist at CERN, in Geneva, developed the EPR paradox further and came up with testable predictions to determine whether or not the hidden variables really existed.

Almost a decade later, John Clauser built the first experiment to test Bell's idea. His results agreed with the predictions of quantum mechanics and showed that Einstein's hidden variables probably do not

exist. The experiments left a few loopholes, however, which were closed in the early 1980s by Alain Aspect, then a graduate student at Paris-Sud University in Orsay, France. By fine-tuning and improving on Dr Clauser's experiments, Dr Aspect put the final nail in the coffin of Einstein's hidden variables.

The third physics laureate, Anton Zeilinger of the University of Vienna, has spent decades looking for ways to put quantum entanglement to use. In 1997 he showed that it was possible to transfer information between particles, a process called "quantum teleportation". He also demonstrated that two pairs of entangled particles can interact in interesting ways. In particular, bringing together one member of each entangled pair causes the two remaining particles (which have never been in contact) themselves to become entangled.

Manipulating the quantum states of systems of entangled particles has become the basis of technologies such as quantum computing and quantum encryption. Building on the work of this year's physics laureates, signals composed of entangled photons (particles of light) have been sent through optical fibres several kilometres long and even been transmitted between the ground and a satellite orbiting hundreds of kilometres above Earth.

"Quantum information science is a vibrant and rapidly developing field," said Eva Olsson, a member of the physics-prize awarding committee of Sweden's Royal Academy of Science. "It has broad and potential implications in areas such as secure information transfer, quantum computing and sensing technology, predictions have opened doors to another world."

Speaking after the announcement was made, Dr Zeilinger said that he had been surprised to receive the academy's call an hour earlier. "I'm still kind of shocked," he said, "but it's a very positive shock."

The third of the science prizes, that for

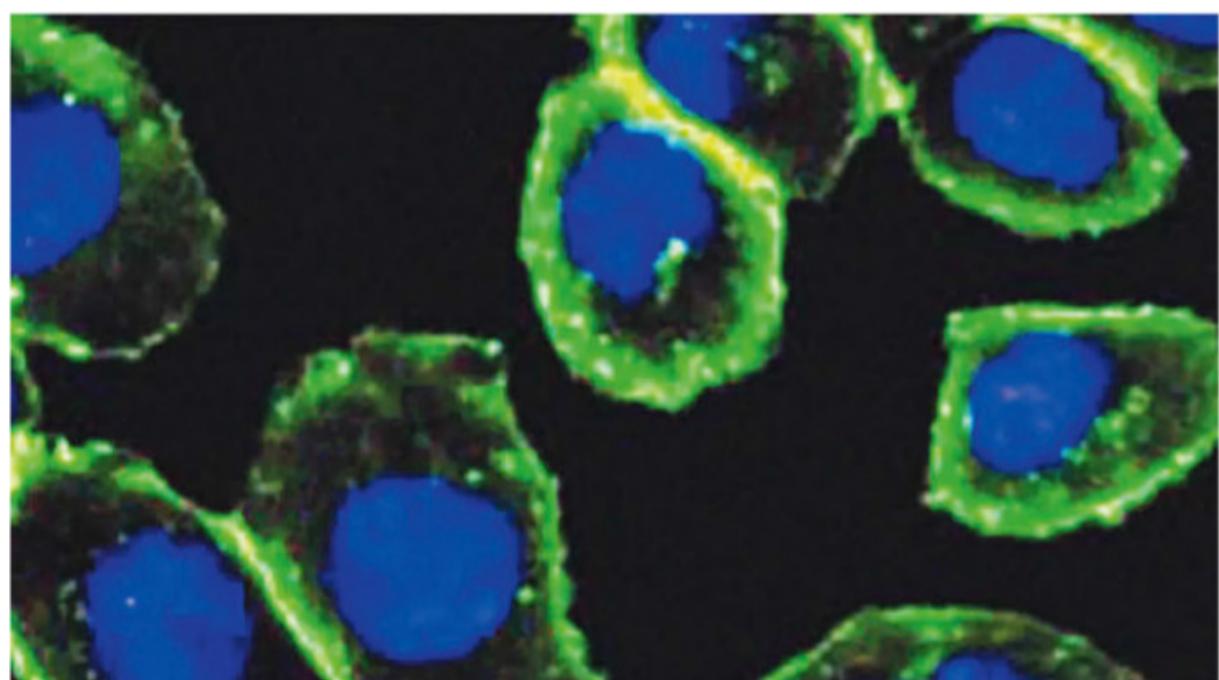
chemistry, went to the inventors of a technique called "click" chemistry. All chemistry is about putting molecules together and pulling them apart. The details inevitably vary from reaction to reaction. But there are many areas of the subject where it would be useful to have a way of snapping the building blocks of large molecules together regardless of the chemical properties of those smaller units, and that is what click chemistry does.

Two of the three winners, Morton Meldal of the University of Copenhagen and Barry Sharpless of Scripps Research, in La Jolla, California (already a laureate for work on catalysts), invented the underlying trick. The third, Carolyn Bertozzi of Stanford University, adapted it for use in biological systems. In both cases, though, it uses a pair of chemical groups—azides (in which three nitrogen atoms are linked together in a row) and alkynes (in which two carbon atoms are connected by a triple bond)—that will, in the right circumstances, react to form a structure called a triazole (a five-membered ring of two carbons and three nitrogens), while remaining attached to their original molecules as well. In essence, the azide and the alkyne are like the two halves of a snap-together buckle.

Click and collect

Before Dr Meldal and Dr Sharpless applied themselves independently to the matter in 2001 and 2002, the reaction between azides and alkynes was known to work, but only slowly and with a tendency to yield a mixture of products. They sought to change that and, after a bit of experimentation, discovered that copper ions greatly improve both speed and purity. Thus was click chemistry born. And for purely chemical processes, their approach worked well. The result has improved drug development, DNA sequencing and the creation of better materials, to name but three fields.

When chemistry shades into biology, ►



Bioorthogonal chemistry at work

► though, there is a problem. Copper ions are frequently poisonous to biological systems. So Dr Bertozzi decided to work on a way to make azides and alkynes react without their involvement. Her solution, which she published in 2004, was to include the alkyne half of the buckle in a molecule that would put it under strain and thus make it more reactive. She did this by inserting the triple-bonded carbon atoms into an eight-member ring. Rings of carbon atoms are most stable when they have six members. An eight-member ring distorts the bonds involved, hence the strain.

To solve the particular problem she was interested in, which was to study carbohydrate polymers called glycans that are often found on the surfaces of cells, she attached azide groups to sugar molecules of the type that form the sub-units of glycans and fed the result to her cells. As she hoped, these modified sugars were incor-

porated into glycans. She was then able to attach fluorescent marker molecules to those glycans once they were exposed to the outside world, by fitting the markers with strained-alkyne rings.

Such molecule-specific fluorescent tagging (see photograph on previous page) is still an important use of bioorthogonal chemistry, as Dr Bertozzi dubbed her invention, to distinguish it from the copper-based version. It can now be employed not just to tag molecules, but to follow them around and see how they interact within a cell. Among other things, that yields a better understanding of the processes behind individual diseases, and it can also be used to assist the development of drugs. Click chemistry and its bioorthogonal offshoot are therefore among the most important chemical inventions of the 21st century, and their inventors are surely worthy winners of the prize. ■

of types of vaccine (mRNA, adenovirus vector or inactivated virus). Vaccine type made no difference to the result.

For a participant to be included, her app had to have collected three cycles of data before her vaccination as well as the cycles after the first and second doses of vaccine, and the subsequent post-vaccination cycle. For unvaccinated participants the requirement was four consecutive cycles.

On average, delays to vaccinated individuals' periods were within the normal range—up to eight days. So for most, vaccines did not have a medically concerning impact. However, the researchers found that 6.2% of vaccinated participants' periods immediately after receiving a dose of a vaccine were more than eight days late. Those experiencing these abnormally late periods in the post-vaccine cycle tended already to have longer cycles. There was no evidence that this effect continued after the post-vaccine cycle, but the trial was not set up specifically to look for that, so Dr Edelman says, "the group would like to explore that outcome in future research."

The world's covid-19 vaccination programmes do indeed provide a golden opportunity to analyse how vaccines are researched. At no previous time had governments across the planet attempted to vaccinate all adults (including all women of reproductive age) at once.

At the moment, to limit the risk of miscarriage and harm to fetuses during a vaccine trial, it is standard practice for women of reproductive age participating in such trials to be using birth control. That is a sensible precaution, as was the decision to not include pregnant women in specific formal clinical trials. (Instead America's Centres for Disease Control and Prevention conducted real-world trials, into which individual pregnant women could opt, alongside the main vaccine roll-out.) But this abundance of caution relating to pregnancy and reducing the risk of harm to fetuses means that, as in this case, possible side-effects for women of reproductive age on their menstrual cycles were missed.

Vaccine manufacturers, health regulators and scientists were therefore caught out when reports of late periods began to emerge as vaccination roll-outs, which started among the elderly, who were at most risk of dying if they became infected, reached down the demographic pyramid to women who had not yet reached menopause. Medical advice struggled to keep up with the pace of misinformation because reports of late periods as a side-effect could not have been found in clinical trials.

Without proof that this was a temporary phenomenon, false speculation and fake news found fertile ground in an often sensitive and emotive issue. Dr Edelman's results should go some way towards countering that. ■

Covid vaccines and menstruation

A dose of truth

A new study allays fears that covid-19 vaccines disrupt menstrual cycles

THE EASIEST way to promote a conspiracy theory is to take a grain of truth and blow it out of sensible proportion. This is exactly how one of the most pervasive sources of covid-19 vaccine hesitancy—misinformation about its impact on women's fertility—spread.

When women of reproductive age started to be vaccinated in large numbers in the (northern) summer of 2021, some noticed that their periods following vaccination were later than normal. By September of that year, there were more than 30,000 reports to Britain's medicines regulator alone of late periods following covid vaccines (with the true figure presumably higher, because of underreporting). Anti-vaxxers then used this phenomenon to scare women with speculations about long-term damage to their fertility.

Research just published in the *BMJ* by Alison Edelman of Oregon Health & Science University in Portland and her colleagues has confirmed both that the effect is real and that there is probably nothing to worry about. Taking data from users of Natural Cycles, a menstrual-cycle tracking app, she and her team found covid vaccination was associated with a small but temporary increase in cycle length.

Among those who received one dose of vaccine in a menstrual cycle, periods were on average nearly one day late. Those who received two doses in a single cycle saw an



Nothing to worry about

average of four days' delay. For both groups, cycle-lengths returned to normal in the cycle following their second dose, designated as the "post-vaccine cycle".

Dr Edelman's study analysed data provided by 19,622 app-users from around the world, though most lived in Europe or North America. A quarter of them, who acted as controls, were unvaccinated. The vaccinated participants had received a variety

Manx comets

Tailless comets could threaten Earth

LONDON, ONTARIO

But they also offer an explanation of the solar system's earliest days

NASA'S DART mission was an impressive success. On September 26th, using a probe weighing 600kg, it hit Dimorphos, an asteroid 160 metres across that was, at the time, 11m kilometres away from Earth. The purpose was to determine whether asteroids which might otherwise strike Earth could have their paths altered by what is, in effect, a game of cosmic billiards. Though the results are not yet in, it seems likely that they could.

But that depends on seeing them early enough. Asteroids have predictable orbits, so cataloguing them is feasible, and is currently being done. This does not generally apply to comets. Though some (like Halley's) have known orbits, most sweep in from the farthest reaches of the solar system, with little notice of their arrival. And that lack of notice applies, *a fortiori*, to a newly discovered class of them that do not flag up their appearance in the conventional way, by developing a tail.

The first Manx comet, so called after the tailless cats of the Isle of Man, was spotted in 2014 by a telescope in Hawaii (see photograph). Since then, several dozen more have been detected. And, as a meeting of the American Astronomical Society in London, Ontario, heard on October 5th, they are objects of great interest. The chance—albeit remote—that such a comet might hit Earth is one reason. Another is that they are a surprising source of evidence for what happened in the solar system's earliest days.

Manx comets, like their tail-wagging brethren, come from the Oort cloud. This is a spherical shell of debris left over from the solar system's formation that is way farther from the Sun than the farthest planet, Neptune, and farther even than the Kuiper belt, a disc-like repository of asteroids and minor planets, the most famous inhabitant of which is Pluto (see diagram).

The Oort cloud is thought to contain trillions of icy chunks, some of which, because of a collision or the pull of a passing star, from time to time fall inward. As these inbound bolides approach the Sun, their ice sublimes, gas and dust escape, and a comet spreads its tail. A Manx comet, by contrast, is presumably a solid (and thus ice-free) lump of rock.

A tailed comet on a collision course with Earth might possibly be detected early enough for a successor to DART, stationed in outer space, to rush in and push it out of

**A distant threat**

harm's way. For a Manx comet, the warning time would be hopelessly short. Yudish Ramanjooloo of the University of Hawaii told the conference that his models suggest the median time between discovery and impact would be 30 days, and establishing its orbit sufficiently to be sure of the risk would shrink that to 18 days.

Another of the reasons for this lack of notice is that, having fallen so far through the Sun's gravitational field to get there, Oort-cloud objects are, by the time they reach the inner solar system, travelling fast. If one hit Earth it would have an impact velocity of 50-70km per second, about three times that of a nearby asteroid. And smaller rocks with such velocities (and therefore presumably of Oort-cloud origin) do enter the atmosphere from time to time.

One such was observed, as Denis Vida of the University of Western Ontario told the meeting, by a programme called the Meteorite Observation and Recovery Project, which watches for meteors over Alberta, in western Canada.

The object in question weighed about 2kg—too small to reach Earth's surface. Instead, it burned up in the atmosphere as a fireball. But its velocity meant it came closer to the ground than most fireballs of that size, ending its run at a height of just over 46km, whereas 70-80km is normal. However, penetration that far into the atmosphere also meant it must have been a

lump of solid rock, rather than the fragile icy conglomerate that standard comets are made of. A kitten, then, of a Manx comet.

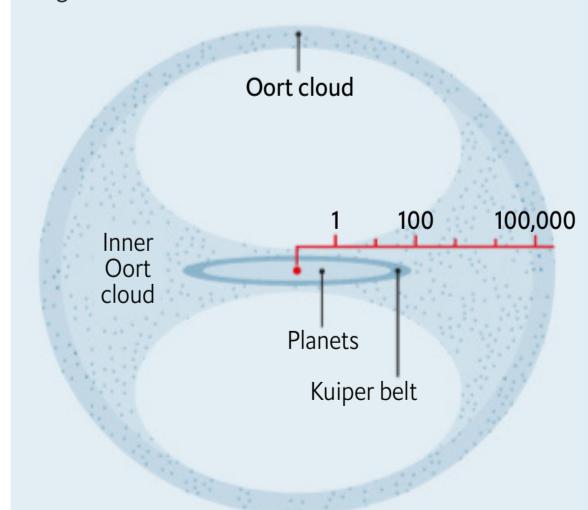
Intrigued, Dr Vida searched the astronomical literature for similar fireballs. He found two others: one seen in the 1980s by the Albertan instrument's predecessor; the second noticed over the Czech Republic in the 1990s. He then compared the two examples detected over Alberta with the number of high-speed fireballs seen by the same instruments that disintegrated in the upper atmosphere, and were thus, presumably, made of cometary material rather than solid rock. This gave him a rough estimate (about 6%) of the amount of rocky, as opposed to cometary, material in the steady rain that is falling from the Oort cloud—and thus of the ratio of rocks to conglomerates in that cloud.

This figure, which matches what other researchers have concluded is the proportion of comets which are of the Manx variety, matters to those interested in the formation of the solar system. They need to explain how such substantial quantities of solid rock—a substance thought likely to have formed only near the Sun, since it requires the stuff of the primordial solar nebula to have been concentrated into large objects, then melted and differentiated—ended up so far away from its birthplace.

As it happens, this mystery is the inverse of another, which is that there is less rocky material than expected between the orbits of Earth and Jupiter, the part of the solar system occupied by Mars and the asteroid belt. One explanation put forward for this is the "Grand Tack" hypothesis, that a juvenile Jupiter moved temporarily closer to the Sun, thus disturbing the asteroid belt and sending much of its contents into the Sun, into outer space or into the Oort cloud. Manx comets and their kittens suggest this is exactly what occurred. Just hope that one of those returning exiles does not pay Earth a visit on its way. ■

Where the comets come from

Zones of the solar system, distance from the Sun
Log scale, AU*



Source: NASA

*One astronomical unit (AU)=150 million km



Re-reading Russian literature in wartime

The useful “Idiot”

The Russian literary canon is tainted by imperialism. That doesn’t mean you should stop reading it

FOR MANY in the West, the masterworks of 19th-century Russian authors such as Fyodor Dostoyevsky and Leo Tolstoy have inspired awe. These writers often seem to stretch up their hands to heaven, grappling with universal profundities of faith, power and injustice. The British novelist D.H. Lawrence, for instance, said that Russian literature explored “the phenomenal coruscations of the souls of quite commonplace people”. But in some circles Russia’s invasion of Ukraine has called into question not just the value of reading these books, but also the morality.

In the *Times Literary Supplement*, Oksana Zabuzhko, a Ukrainian writer, argued powerfully that Western readings of major Russian authors had ignored their imperialist attitudes and indulged their drastic moral relativism and sympathy for criminals. Literature, she observed, “is of one flesh with the society for which and about which it writes”. Books are “the camouflage net” of Russia’s tanks in Ukraine. Meanwhile Volodymyr Yermolenko, a Ukrainian philosopher, wrote in *Foreign Policy* that the Russian classics were “chock-full of imperialist discourse” and “cruelty”.

Proposing a direct link between classic fiction and today’s military aggression is a stretch. The tomes that helped inspire Vladimir Putin’s invasion were altogether more esoteric and extreme than “Anna Karenina” or “The Gambler”. All the same, these critics have a point.

Russia’s best-loved writers are cherished in part for chronicling the country’s social ills. But unsettling, even dangerous ideas appear in their writing too. Naturally, the same is true of revered British and American authors, among others. Yet readers who are sensitive to imperialism and prejudice in Western works have in the past turned a blind eye to them in Russian literature. They are less attuned to twisted

views of the Ukrainian steppe than of, say, the American West in the 19th century.

Take the national poet, Alexander Pushkin, whom Russians sometimes refer to as *nashe vse* (“our everything”), a moniker that reflects his extraordinary use of the Russian language and his commitment to championing the “little man” in the face of tsarist power. Pushkin spent several years in exile because of the anti-authoritarian spirit of his works, which were appreciated by the Decembrists, participants in a failed uprising against Nicholas I in 1825.

However, Pushkin also wrote patriotic verse that trumpeted Russia’s imperial might. Mr Yermolenko cites “To the Slanderers of Russia”, written in response to the Polish uprising against tsarist rule of 1830-31. The poem decries supposed European aggression—“Why do you threaten Russia with curses?”—and proclaims that the country’s enemies will meet their ends should they venture onto Russian soil. The sentiments echo Mr Putin’s rhetoric today.

Pushkin’s imperialist bent also shows up in “The Prisoner of the Caucasus”. The poem describes a young Russian officer who is captured in the Caucasus before being saved by a Circassian woman. In the epilogue the narrator celebrates Russia’s violent subjugation of the region and declares that “everything is subject to the Russian sword”. Here, too, it seems that Pushkin’s critique of tsarist power does not extend to its imperialism.

Something similar can be said of Dostoyevsky. His books enter the minds of cerebral murderers and call conventional

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► morality into question. They are also laced with colonialist ideas.

Egregious examples arise in his "Diary of a Writer", a genre-bending collection of fictional and non-fictional sketches produced towards the end of his life, in which he enthused about the then-ongoing Russian conquest of Central Asia. In a passage written in January 1881, he celebrates the Russian army's victory at Geok-Tepe (now Gokdepe in Turkmenistan), a bloody battle that cemented the empire's authority in the region. As Olga Maiorova of the University of Michigan notes, in the book Dostoyevsky hopes Russia will continue its conquest into Asia, so that people "all the way to India" might "become convinced of the invincibility of the white tsar".

Dostoyevsky's Russian chauvinism is often expressed in spiritual rather than militaristic terms. Following his lengthy exile in Siberia during the 1850s—the result of his association with the Petrashevsky Circle of radical intellectuals—he became a devout Orthodox Christian. In his thinking, those who rejected the Orthodox God, such as Catholics or Jews, were anathema. Dostoyevsky's long-standing hostility to both crops up in his novel "The Idiot". The protagonist, Prince Myshkin, calls Catholicism an "un-Christian" scourge that Russia must vanquish. "Our Christ", he avers, "must shine out as a rebuff to the West."

The map and the territory

Russia, the author came to believe, was destined to be the vanguard of a spiritual revolution. It was a messianic force that would vanquish Western decadence and unite humankind under God. Again, amid Mr Putin's anti-Western rants, that sounds nauseatingly familiar. In the past readers have seen Dostoyevsky as a sublime guide to the darkest, most secret reaches of the human heart. Today he and other Russian writers can instead seem to point the way to the front in Donbas.

So while blaming long-dead authors for the depredations of Mr Putin's army is unreasonable, some of their work has indeed reflected, even fed, rumbling pathologies that have erupted into violence once again. But that is not all these books mean or say.

Consider the work of Tolstoy, for many Russia's finest novelist, and the world's. Yes, it has imperialist blind spots, including in "War and Peace", his chronicle of the Napoleonic invasion of Russia in 1812. As Ewa Thompson of Rice University says, the book neglects the perspectives of the colonised peoples of eastern Europe, particularly Poles, who often supported Napoleon against their Russian overlords.

Yet elsewhere Tolstoy repudiates militarism and violence of all kinds. His exquisite late novella "Hadji Murat" tells the story of a Caucasian warrior trying to save his family amid a Russian conquest; it sympa-

thises with his plight and excoriates tsarist aggression. As the mix of patriotism and pacifism in Tolstoy's work shows, literature is an inherently ambiguous medium. Great books can rarely be simplified to a single meaning or moral. The best expose and anatomise human flaws, whether of character, narrator or indeed the author.

That is true of Pushkin's compassionate tales, such as "Eugene Onegin" and "The Queen of Spades", and, for all his ugly views, it goes for Dostoyevsky too. Mikhail Bakhtin, a Russian philosopher, described Dostoyevsky's novels as "polyphonic", meaning that his characters embody distinct, often clashing ideas. The author's messianic world-view gets a hearing, but is often ascribed to scoundrels, low-lifes and fools. In doing so he puts his ideas to the "strictest test", says Sarah Young of University College London. The reader is encouraged less to admire his philosophy than to challenge it. Ignore Dostoyevsky's works, and you forgo this invitation.

Those who detest Mr Putin's invasion of Ukraine need not throw away their copies of the Russian classics. There is too much beauty and wisdom in them for that; abjuring them would be a self-inflicted wound. But readers might revisit them with more critical eyes and a renewed sensitivity to imperialist sentiments. In the best sense of the term, this is what scholars are referring to when they talk (as many now do) about "decolonising" the canon.

That need not mean dismissing influential works on political grounds; instead it can involve approaching literature from a fresh perspective. It means acknowledging the troubling parts of books without reducing them to those aspects alone. It means more reading, not less. ■

Scientific dynasties

Circles of life

The Huxleys. By Alison Bashford. University of Chicago Press; 576 pages; \$30. Published in Britain as "An Intimate History of Evolution"; Allen Lane; £30

IN 1958 JULIAN HUXLEY fell in love with a gorilla. Then in his early 70s, he had long been a household name in Britain. As Alison Bashford describes in her new double biography, Julian had inherited the role of evolution's frontman from his grandfather, Thomas Henry Huxley, a Victorian scientist writer. Yet on meeting Guy the Gorilla at London Zoo, Julian found himself undone. "Magnificent in his reserve



Like grandfather, like grandson

and silent sense," he wrote of their first encounter, "he gives you a look of sombre dignity that makes you feel in some real sense his inferior."

This fellow-feeling for animals, Ms Bashford notes, was a reversion to Huxley type. Thomas had started on the road to agnosticism—a term he coined—in 1860, after his son died in childhood and a tone-deaf curate presiding over the funeral quoted Paul's epistles: "If the dead rise not again, let us eat and drink, for tomorrow we die." Ridiculous, Thomas thought: as a zoologist who had observed primates' treatment of the dead, he doubted that they believed in resurrection. Nor were they inclined to gluttony. Why should people be any different?

The sea-tide that would pull him away from religion and towards secular science was tugging at his heels. It would sweep him to notoriety as "Darwin's Bulldog", arch-debunker of "natural theology" and champion of the descent of man. The same currents bore his grandson from an abortive academic career to national and eventually global fame as a broadcaster and popular-science writer. "A man now cannot be a universal expert," a colleague told the young Julian, as a warning against imitating his illustrious grandfather. The younger Huxley took that as a challenge.

Appropriately for acolytes of Darwinism, Thomas and Julian shared what may have been heritable traits: scientific genius, an appetite for culture (both were keen poets), and a tragic tint of mental instability. Thomas was wracked by depression. Julian's tempestuous ego troubled his marriage and tried his friends; his brother committed suicide.

And although Julian lived until 1975—leading UNESCO and the London Zoo and mentoring David Attenborough—his life, like his grandfather's, bore a distinctly Vic- ►

torian stamp. Both Huxleys tried to instil order in the chaotic, confusing world around them. At best, that meant understanding it; at worst, it involved sinister forms of control, as in Julian's lifelong enthusiasm for eugenics. Sometimes positive and negative impulses co-existed. Thomas hailed the end of slavery in America but sneered at racial equality. Julian denounced Nazi pseudo-science yet advocated the "semi-compulsory" sterilisation of the disabled almost in the same breath.

Meanwhile, though they spent their professional lives categorising the natural world, both found themselves obsessed with points at which the scientific method broke down. Thomas, a renowned rationalist, confessed a fascination with spiritualism. Julian embraced palmistry and new-age ideals of cosmic convergence. For all their zealous support of evolution, its implications haunted both men. They saw the animal lurking inside man.

And the humanity in animals. Influ-

enced by Darwin's interactions with orangutans, Thomas hypothesised that the line between apes and people was etched so thinly that a clever ape could best a dull human. Julian was an early, vociferous campaigner for endangered animals and a founder of the modern conservation movement. In *Guy the Gorilla*, he found a creature he adored "perhaps more than anyone", Ms Bashford writes, and a mind he felt was equal to his own.

Julian longed to communicate with Guy, but never could. The Huxleys wrote about evolution as a romance, an epic of progress and transformation. In their own lives and observations they also saw the cruelty of science and the bleaker aspects of inheritance: the madness, the sorrow, the chained ape's pained, silent gaze. Both sides, and both men, are painstakingly illuminated by Ms Bashford. Balancing scholarly rigour with an eye for the absurd, her book reveals the human drama behind scientific fact. ■

Since it has little to gain from pandering either to the mighty or to the lazily liberal majority, Mr Weigel argues, Christianity has no choice but to be counter-cultural—and conservative. With characteristic fluency, he defends not only Vatican II but the entire centuries-old process by which bishops, meeting in council and praying for divine guidance, have wrestled with subtle doctrinal points and expressed them in complex texts that took decades to digest fully.

Meanwhile he connects the woes of the 20th century, from the two world wars to the threat of nuclear annihilation, with the onward march of technology-driven secularism. The argument is artful but fails to account for the strange episodes in the current century in which religious figures—from Russia's Patriarch Kirill to Iran's ayatollahs and American evangelists warning of Armageddon—have shown a distinct fascination with the dark arts of atomic science. Some religious hotheads see divinity in a mushroom cloud.

Conservatives such as the author often recall that their heroes, including popes John Paul II and Benedict XVI, were active participants in Vatican II who in subsequent years never ceased to invoke the council's spirit. To their admirers, both men had a keen sense of secularism's advance, and of the need for the church to counter-attack. As early as the 1950s Joseph Ratzinger—the future Benedict—understood that Catholicism in superficially pious Bavaria, his homeland, was little more than a hollowed-out shell.

For their part, supporters of Francis, the current pontiff, praise his revival of the progressive spirit of Pope John XXIII, who launched the council at the end of a life chastened by service as a roving diplomat. In the 1960s, it seemed radical to devolve power from the papacy to bishops; Francis ►

The Catholic church

The room where it happened

Rows over the Second Vatican Council are really about Catholicism's future

To Sanctify the World. By George Weigel. Basic Books; 368 pages; \$32 and £25

FOR MANY historians of faith, it was the greatest religious gathering of the 20th century, setting a new course for the largest branch of the world's most widely followed creed. Starting in 1962, the Second Vatican Council deliberated in Rome over three years, producing 16 landmark documents on sensitive topics such as the Catholic view of Judaism and other religions. It embraced religious freedom and liberal democracy as well as the use in services of vernacular languages (instead of Latin) and simpler forms of worship.

Nearly 3,000 bishops from over 100 countries were invited. Such was the importance of Vatican II, as it is generally called, that Catholics still argue furiously about it. Each disputatious camp presents its own vision of Christianity's future as the correct interpretation of the council.

For liberals, Vatican II was a start, but only that, in dismantling the church's authoritarian power structures and becoming more responsive to the ordinary lives of the world's Catholics, who now number over 1bn. For conservative thinkers such as George Weigel, the council was a visionary effort to prepare the church for a post-

Christian world, in which values rooted in theism would be absent from the corridors of power even in heartlands of the faith. In his latest book, Mr Weigel—one of the most confident voices on America's moderate religious right—insists that the end of "Christendom" is a reason to be more zealous, not less, in defence of venerable doctrines and practices.



Francis and friend

► has invited representatives of indigenous people in Latin America, including women, to sit alongside the robed prelates as they ponder the future of Catholicism, and indeed the planet. For conservative thinkers, Francis's offer to "accompany" individuals who lead unconventional marital or sexual lives goes beyond Vatican II, which was really, in their view, a call to arms in defence of core beliefs.

In today's information-overloaded age, it can seem odd that people should still be arguing over the minutiae of arcane documents issued 60 years ago (which in turn rested their authority on events that unfolded almost 2,000 years before that). A rough corollary in the modern era may be Communist Party congresses in the Soviet Union, which also aspired to chart the future by teasing out the real meaning of old axioms. Mikhail Gorbachev's generation of reformers claimed to be "children of the 20th congress" of 1956, at which Stalin was denounced. By 1990, when the party held the last of its solemn gatherings, it was obvious that communism itself, not merely its "wrong interpretation", was dying.

For all its woes, not least the rolling child-abuse scandals, Catholicism is not about to expire. But for anyone observing its internal debates, it is hard to resist the feeling that both the main camps—doctrinal conservatives such as Mr Weigel and liberal experimenters of the pro-Francis faction—are behind the curve of history, despite their best efforts to keep up. ■

American music

Rich pickings

Well of Souls. By Kristina Gaddy. W.W. Norton; 304 pages; \$30 and £22

NEAR THE beginning of "Deliverance", a horror film of 1972 about four men from Atlanta who go canoeing in the backwoods of north Georgia, one of the city types takes a guitar from his car and trades melodies with a dead-eyed boy on a porch, who strums a banjo. The locals and visitors smile and dance, but things soon turn sour. What follows helped convince a generation of urbanites to holiday at the beach. It also solidified the banjo's image as a totem of white rural culture.

Kristina Gaddy's beguiling new book aims to subvert that reputation by excavating the banjo's history. Her thesis is simple and well-supported. The banjo was created in America by enslaved Africans, and for much of its history was integral to African-



The music of time

American culture, celebration, spirituality and resistance.

She weaves her story together from sources including paintings, diaries and letters, and tells it chronologically. In a less daring writer's hands, this might have become a slog, but Ms Gaddy successfully blends archival skills with imagination. The opening, for instance, describes an engraving of a "strum strump"—a sort of urban banjo made from a hollowed gourd covered in animal hide—found in Jamaica in the 17th century. Ms Gaddy goes on to evoke the island as it was then and the music the instrument would have made.

Her narrative moves across the Americas, following enslaved Africans, their descendants and their instruments. Strum strumps become banzas, banjas and banjers. For most of its history, many people looked down on the banjo. James Hollyday, a landowner in Maryland, sent a "bangeau" to his niece in London in 1758; she thought the artefact was "a great curiosity" on which she hoped to make "pretty music". Hollyday himself associated it with the enslaved people who played it. He "should not have thought of sending so rude an instrument of music", he said, had his wife not wanted him to.

Ms Gaddy depicts the ways the enslaved used these instruments in dances and other forms of celebration that were tolerated reluctantly, if at all, by white authorities, who feared rebellion and secret communication through music. The banjo was "sacred", she writes; "it fit into a cultural complex of music, dance and spirituality." This part of her narrative is slightly overegged. Banjos were used in dances and celebration, which often had a spiritual component, but it does not follow that they were wholly sacred rather than secular.

The most heartening aspect of this book is the most contemporary. The last chapter

discusses African-American musicians rediscovering the banjo and reclaiming their rightful place in Appalachian, country and old-time music—"white" genres that adopted the banjo, so contributing, over the centuries, to the erasure of its origins. The Carolina Chocolate Drops, an African-American old-time string band whose founder, Rhiannon Giddens, wrote the book's foreword, won a Grammy. Others will follow the trail they have blazed, and American music and culture will be richer for it, and more whole. ■

British fiction

A man in full

The Romantic. By William Boyd. Viking; 464 pages; £20

WILLIAM BOYD'S extensive back catalogue includes several "whole-life" stories, as he calls them, of which the best-known is "Any Human Heart" (published in 2002). His 17th and latest novel is another cradle-to-grave epic. In "The Romantic", a flawed yet captivating protagonist again makes his way through the world, interacting with both factual and fictional figures and weathering personal tribulations and historical upheavals.

This time around, the hero's life arcs across the 19th century. Cashel Greville Ross is born in 1799, orphaned and brought up in County Cork by his aunt—or so he is led to believe. When he learns the truth of his origins he enlists as a soldier, narrowly escaping the battle of Waterloo with his



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▶ life. Later, as an officer in the colonial Madras Army, his morality is tested when an engagement with restless locals in Ceylon turns into a massacre.

Back in civilian life, Cashel begins touring Europe with a view to writing a travel book. In Pisa he befriends the Romantic poets, going shooting with Byron ("a warrior without an enemy") and sailing with Shelley. In Ravenna he embarks on an all-consuming love affair with Raphaella, a married *contessa*, until a secret from her past comes to light. And in London, he enjoys literary fame—until he is swindled by

his publisher and sent to a debtors' prison.

Again and again, Cashel's streaks of luck or contentment are jeopardised by cruel twists of fate. His expedition to discover the source of the Nile results in a rival stealing his glory. A late-career stint as a diplomat in Trieste comes to a shocking end when he realises he has been made an unwitting middleman in a smuggling racket. Cashel devises plans to get even with those who double-crossed him. Eventually, though, his determination to settle scores is supplanted by a yearning to track down Raphaella after decades of separa-

tion. But is seeing out his days with her "the coda that his life was waiting for?"

Not every stage of Cashel's life is equally engaging. But most are packed with passion, adventure, suspense, comic interludes and a range of colourful characters. The war scenes are visceral ("lancers were shredded, as if they were carrots in a grater or turnips in a cutter"), and a sense of urgency powers Cashel's mission to win back his lost love. The rollicking work of a masterful storyteller, "The Romantic" is both a vivid portrait of a life and a sweeping panorama of an age. ■

Johnson Out of one, many

Switzerland is a model of a multilingual state—but a tough one to imitate

EUROPE IS THE home of the idea that people who see themselves as a nation should have a country. And very often those countries have seen themselves linguistically: France is the home of those who speak French, and so on. This has always been a simplification. But one state, one nation and one language remains a Platonic ideal.

Which makes it all the odder that, at the heart of Europe, one nation in one state is one of the most happily, successfully multilingual places on Earth. Switzerland, which has a population comparable in size to Hungary's or Austria's, has four official languages, and a huge amount of local variety beyond that.

About 60% of Swiss speak German as their mother tongue; but if you studied the language of Goethe in Hamburg or Hanover, good luck understanding a conversation among Swiss. The local "Schwyzerdütsch" is so far from the standard that children who speak it have to learn High German in school. But the Swiss are proud of their German, which can even be starkly different from valley to valley. A German executive in Geneva says that when visiting Zurich, he often finds it more practical to speak English.

Just over 20% of Swiss speak French, the next-biggest language. Then there is Italian, spoken by only about 8% of the population, and, most remarkably, Romansh, a Romance language that is the native tongue of only around 0.5% of Swiss. Yet all three, alongside German, are official languages in the country. The Italian spoken is often a local variety, and even tiny Romansh has widely diverging dialects. One Romansh-speaker says that, when he was in the army, it was easier for him to use German with Romansh-speaking comrades than what was notionally their common language.

How can a country so linguistically diverse work, and indeed be one of the richest in the world? François Grin of the University of Geneva says that it is because of a national myth, whereby "Switzerland functions not despite but because of its multilingualism." The point of the myth, he says, is not that it is true (or false), but that it is useful. The Swiss work hard at keeping it going.

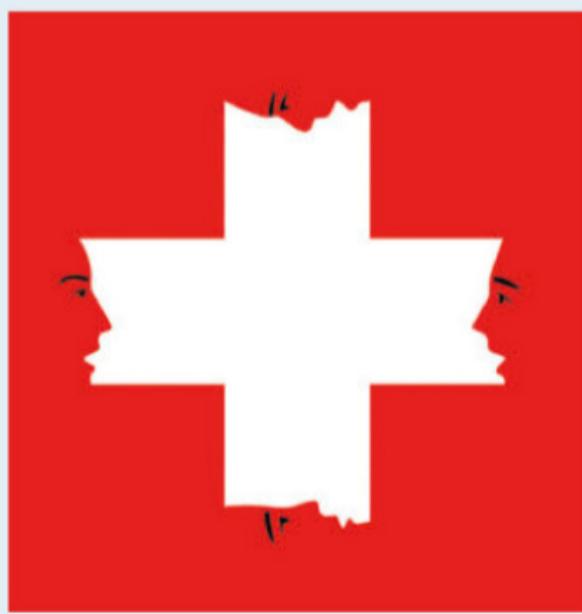
Traditionally, Swiss students studied the next-biggest national language after their own as their first foreign one. Italian-speakers often learn both German and French (and Romansh-speakers, the lot). And English is taught in all schools, as well as being heard frequently in the streets of the most international cities, Geneva and Zurich. Switzerland is also generous to the many who speak yet another language; Geneva makes its schools available for the teaching of Portuguese after hours to the large Portuguese-descended population, for example. The children of immigrants typically master the local dominant language, even Swiss-German, which is not formally taught.

But this doesn't make every Swiss a polyglot paragon. The key to Switzerland's functioning is its principle of territoriality: in most of the 26 cantons, one language rules. (Three cantons are bilingual in German and French, and Graubünden is trilingual in Italian, Romansh and German.) This territoriality can be coercive—Swiss courts have found that cantons may forbid students to be primarily educated in another national language even in private schools. The principle's strength means that some Swiss who have not lived outside their home region may never fully master another national language.

And in recent decades, many of the German-speaking cantons, following Zurich, have shaken the Swiss model by introducing English before French as the first foreign language learned in schools. Since even the Swiss do not easily manage three or four languages (remembering that Swiss German and High German are quite distinct), this means that many in German-speaking Switzerland do not master French if they focus on English.

But even if every individual Swiss is not a walking interpreter's booth, the country remains deeply committed to its multilingual model. It is not an easy one to copy: Switzerland is the product of fiercely independent cantons joining the confederation for mutual benefit while still considering themselves sovereign. The country must respect localism, or it would not exist.

That said, most European states are amalgamations of what were once smaller units too. Often their founding stories are that they were destined to be united, including by language. They could learn from Switzerland, whose national story holds that unity and uniformity are not the same thing.





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DUE: NOVEMBER 11, 2022 AT 4:00 P.M. EASTERN TIME

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To obtain the Request for Proposals, please visit nyc.gov/nycwaterboard or email onazem@dep.nyc.gov with the message subject line "Management Consulting RFP 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 \$ Oct 5th	% change on year ago	
United States	1.8	Q2	-0.6	1.5	8.3	Aug	7.9	3.7	Aug	-3.7	-3.9	3.8	222	-	-	
China	0.4	Q2	-10.0	3.3	2.5	Aug	2.1	5.3	Aug‡§	1.9	-7.1	2.5	§§	-17.0	7.09	-8.9
Japan	1.6	Q2	3.5	1.8	3.0	Aug	2.1	2.5	Aug	1.8	-6.1	nil	-8.0	145	-22.9	
Britain	4.4	Q2	0.9	3.3	9.9	Aug	8.6	3.6	Jun††	-5.2	-6.8	4.0	303	0.89	-18.0	
Canada	4.6	Q2	3.3	3.2	7.0	Aug	7.0	5.4	Aug	1.2	-3.6	3.3	176	1.37	-8.0	
Euro area	4.1	Q2	3.1	2.9	10.0	Sep	8.3	6.6	Aug	1.5	-4.4	2.0	220	1.01	-14.8	
Austria	6.0	Q2	11.5	4.6	10.5	Sep	8.9	5.2	Aug	-0.5	-4.7	2.7	265	1.01	-14.8	
Belgium	3.3	Q2	0.8	2.3	11.3	Sep	9.6	5.8	Aug	-1.2	-5.1	2.6	253	1.01	-14.8	
France	4.2	Q2	2.2	2.4	5.6	Sep	6.2	7.3	Aug	-1.9	-6.1	2.5	236	1.01	-14.8	
Germany	1.7	Q2	0.6	1.0	10.0	Sep	8.3	3.0	Aug	3.5	-3.2	2.0	220	1.01	-14.8	
Greece	7.8	Q2	5.0	5.0	11.4	Aug	9.5	12.2	Aug	-6.6	-5.3	4.7	386	1.01	-14.8	
Italy	5.0	Q2	4.4	3.0	8.9	Sep	7.2	7.8	Aug	0.3	-6.1	4.5	359	1.01	-14.8	
Netherlands	5.1	Q2	10.6	4.5	12.0	Aug	13.1	3.8	Aug	8.4	-2.2	2.3	240	1.01	-14.8	
Spain	6.8	Q2	6.0	4.2	9.0	Sep	9.2	12.4	Aug	0.4	-5.4	3.1	264	1.01	-14.8	
Czech Republic	3.6	Q2	1.8	2.1	17.2	Aug	16.7	2.5	Aug‡	-3.6	-5.7	5.3	319	24.9	-12.0	
Denmark	3.5	Q2	3.5	2.1	8.9	Aug	8.2	2.7	Aug	8.3	0.8	2.5	239	7.55	-15.0	
Norway	3.9	Q2	2.9	2.2	6.5	Aug	6.2	3.1	Jul‡‡	17.3	11.3	1.4	76.0	10.6	-19.8	
Poland	4.9	Q2	-8.1	3.2	17.2	Sep	14.3	4.8	Aug§	-3.7	-3.7	7.1	488	4.90	-18.8	
Russia	-4.1	Q2	na	-4.4	14.3	Aug	14.0	3.8	Aug§	12.9	-3.1	10.3	263	60.8	19.2	
Sweden	4.1	Q2	3.6	2.2	9.8	Aug	7.3	6.6	Aug§	3.0	-0.2	2.1	170	11.0	-20.5	
Switzerland	2.4	Q2	1.1	2.2	3.3	Sep	3.4	2.1	Aug	7.0	-1.1	1.0	117	0.99	-6.1	
Turkey	7.6	Q2	8.5	5.0	83.5	Sep	72.8	10.6	Jul§	-5.7	-3.8	11.8	-604	18.6	-52.3	
Australia	3.6	Q2	3.6	3.2	6.1	Q2	6.0	3.5	Aug	1.9	-2.6	3.6	212	1.55	-11.6	
Hong Kong	-1.3	Q2	4.1	0.4	1.9	Aug	2.0	4.1	Aug‡‡	4.1	-6.8	3.5	229	7.85	-0.9	
India	13.5	Q2	9.5	6.9	7.0	Aug	7.0	6.4	Sep	-1.5	-6.6	7.4	111	81.5	-8.7	
Indonesia	5.4	Q2	na	5.1	6.0	Sep	4.9	5.8	Q1§	1.2	-3.8	7.2	85.0	15,192	-6.2	
Malaysia	8.9	Q2	na	6.0	4.7	Aug	3.1	3.7	Jul§	1.6	-6.1	4.3	91.0	4.63	-9.7	
Pakistan	6.2	2022**	na	6.2	23.2	Sep	18.5	6.3	2021	-5.0	-7.0	12.8	†††	249	223	-23.6
Philippines	7.4	Q2	-0.4	6.7	6.9	Sep	4.9	5.2	Q3§	-3.8	-7.7	7.0	226	58.7	-13.6	
Singapore	4.4	Q2	-1.0	3.5	7.5	Aug	5.7	2.1	Q2	18.9	-1.0	3.3	175	1.43	-4.9	
South Korea	3.0	Q2	3.0	2.6	5.6	Sep	5.1	2.1	Aug§	1.8	-3.3	4.1	178	1,410	-15.7	
Taiwan	3.0	Q2	-7.0	2.9	2.7	Aug	3.0	3.7	Aug	14.1	-2.0	1.7	123	31.6	-11.7	
Thailand	2.5	Q2	2.7	2.8	6.4	Sep	6.0	1.5	Dec§	-0.5	-5.0	3.1	135	37.4	-9.8	
Argentina	6.9	Q2	4.2	4.6	78.5	Aug	70.8	6.9	Q2§	-0.6	-4.5	na	na	149	-33.6	
Brazil	3.2	Q2	5.0	2.6	8.7	Aug	9.6	8.9	Aug‡‡	-0.4	-6.2	11.8	65.0	5.23	4.6	
Chile	5.4	Q2	nil	2.0	14.1	Aug	11.5	7.9	Aug‡‡	-7.1	-1.7	6.8	98.0	945	-14.2	
Colombia	12.6	Q2	6.0	6.6	11.4	Sep	9.8	10.6	Aug§	-5.1	-4.7	12.8	534	4,549	-16.5	
Mexico	2.0	Q2	3.7	2.2	8.7	Aug	8.0	3.3	Aug	-1.1	-2.4	9.6	204	20.1	2.3	
Peru	3.3	Q2	2.3	2.6	8.5	Sep	7.7	7.7	Aug§	-3.5	-2.1	8.7	233	3.96	4.3	
Egypt	3.2	Q2	na	6.2	14.6	Aug	12.5	7.2	Q2§	-4.9	-6.5	na	na	19.7	-20.1	
Israel	4.8	Q2	6.8	5.7	4.6	Aug	4.5	3.4	Aug	3.5	0.5	3.3	211	3.55	-9.0	
Saudi Arabia	3.2	2021	na	9.1	3.0	Aug	2.5	5.8	Q2	14.0	9.0	na	na	3.76	-0.3	
South Africa	0.2	Q2	-2.9	1.9	7.9	Aug	6.9	33.9	Q2§	-1.2	-6.2	10.7	120	17.9	-15.7	

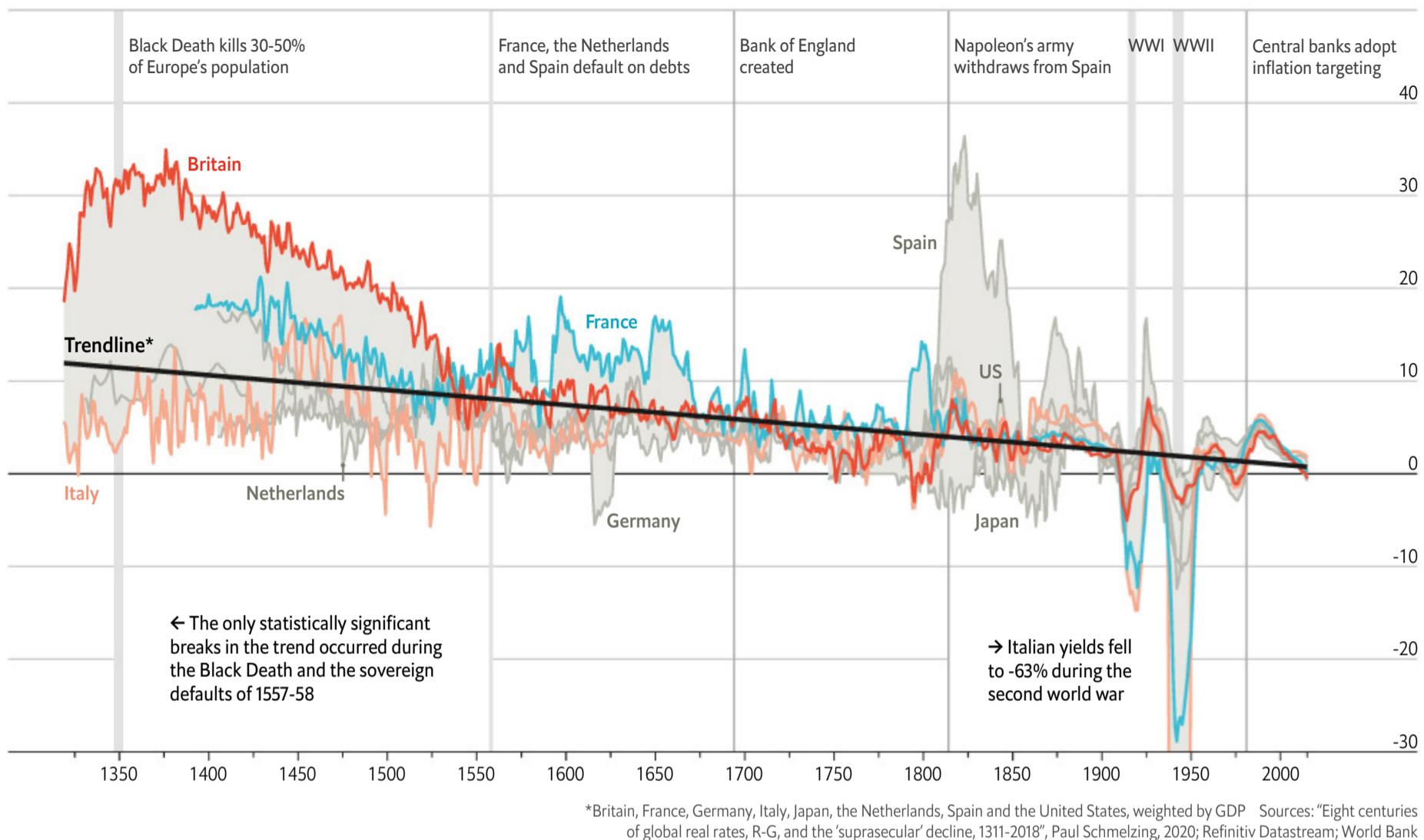
Source: Haver Analytics. *% change on previous quarter, annual rate. †The Economist Intelligence Unit estimate/forecast. §Not seasonally adjusted. ‡New series. **Year ending June. ††Latest 3 months. #3-month moving average. §§5-year yield. †††Dollar-denominated bonds.

Markets

In local currency	Index Oct 5th	% change on:			index Oct 5th	% change on:		
		one week	Dec 31st 2021			one week	Dec 31st 2021	
United States S&P 500	3,783.3	1.7	-20.6	Pakistan KSE	41,611.4	0.4	-6.7	
United States NAScomp	11,148.6	0.9	-28.7	Singapore STI	3,153.2	1.2	0.9	
China Shanghai Comp	3,024.4	-0.7	-16.9	South Korea KOSPI	2,215.2	2.1	-25.6	
China Shenzhen Comp	1,912.0	-1.4	-24.4	Taiwan TWI	13,801.4	2.5	-24.2	
Japan Nikkei 225	27,120.5	3.6	-5.8	Thailand SET	1,580.3	-1.2	-4.7	
Japan Topix	1,912.9	3.1	-4.0	Argentina MERV	146,722.9	6.3	75.7	
Britain FTSE 100	7,052.6	0.7	-4.5	Brazil BVSP	117,197.8	8.1	11.8	
Canada S&P TSX	19,235.1	3.1	-9.4	Mexico IPC	45,845.8	0.9	-13.9	
Euro area EURO STOXX 50	3,447.7	3.4	-19.8	Egypt EGX 30	10,010.8	3.2	-15.9	
France CAC 40	5,985.5	3.8	-16.3	Israel TA-125	1,878.2	-2.1	-9.4	
Germany DAX*	12,517.2	2.7	-21.2	Saudi Arabia Tadawul	11,770.3	5.4	3.9	
Italy FTSE/MIB	21,360.7	2.4	-21.9	South Africa JSE AS	65,612.8	2.8	-11.0	
Netherlands AEX	664.5	3.6	-16.7	World, dev'd MSCI	2,5			

→ Long-term borrowing costs have declined on a remarkably consistent trajectory

Real long-term benchmark bond yields, 12-year moving average, %



Steady as she goes

Since 1311 bond yields have fallen with metronomic regularity

FROM 2015 to 2021 long-term interest rates sat at record lows. On average, during this period ten-year government bonds yielded 1.9% in America, 1.1% in Britain and zero in Germany. But just as investors got used to vanishingly low rates, those rates vanished. In 2022 America's yields have risen from 1.5% to 3.8%, Britain's from 1.0% to 4.1% and Germany's from -0.2% to 2.0%.

Such abrupt surges have raised fears of an imminent recession, and caused asset prices to plunge. Nonetheless, increases in long-term yields are likely to be temporary.

With apologies to homeowners with variable-rate mortgages, many borrowers have done well in 2022 because prices have risen faster than expected, inflating away some of their debts. Even after their recent rise, current ten-year government bond yields lag inflation over the past 12 months by five percentage points in America and a whopping ten points in the Netherlands.

This gap reflects investors' expectation that inflation is likely to subside fairly

soon. But recent research on long-run trends in interest rates suggests that creditors hoping for healthy real yields in future are still likely to be disappointed.

In 2020 Paul Schmelzing, an economist, published a dataset of interest rates and inflation dating back to the 1300s, in countries representing four-fifths of advanced-economy GDP. It showed that real long-term yields fell from the low double digits in the early Renaissance to the low single digits today. The trend applied to both public- and private-sector debt, and to seven of eight countries studied (the exception was Spain, where rates averaged 27% following Napoleon's defeat in 1814).

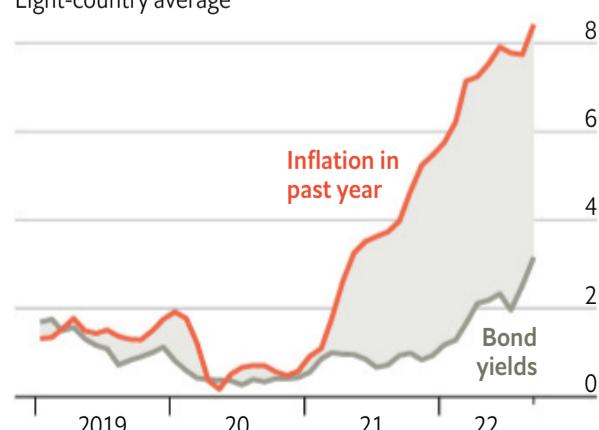
Last month Mr Schmelzing, along with Kenneth Rogoff of Harvard and Barbara

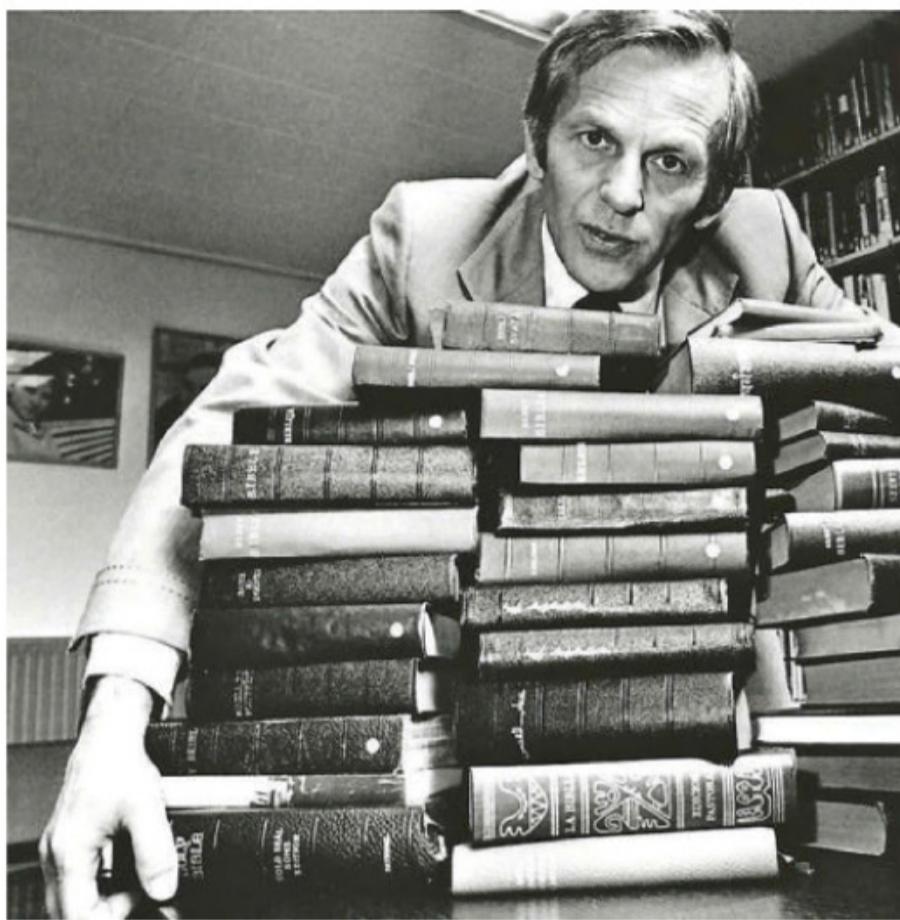
Rossi of Pompeu Fabra University, released a working paper that tried to identify key points in history when the path of interest rates changed. Surprisingly, GDP-weighted real rates followed nearly a straight-line long-term trajectory during the entire period, falling by an average of 0.016 percentage points per year. The only two events that appeared to disrupt the trend were the Black Death and a wave of sovereign-debt defaults in the late 1550s. All other deviations—including those following the founding of America's Federal Reserve in 1913 and the advent of inflation-targeting central banks—could not be distinguished statistically from random chance.

This trend may be of little use to speculators, as rates have drifted towards its level only over long periods. It underestimated real borrowing costs by two percentage points on average from 1363-1479, and then overestimated them by one point from 1480-1625. Nonetheless, people investing on behalf of their grandchildren should take note: the 800-year pattern suggests that current real rates should be just 0.7%.

The authors speculate that the trend may be more likely to flatten out as rates approach negative territory than to continue for ever. However, they "do not see evidence of that yet". A simple linear extrapolation implies that on average, real rates will sink below zero for good in 2066. ■

Ten-year bond yields and inflation, %
Eight-country average*





God's smuggler

Brother Andrew, a Dutch missionary who smuggled Bibles behind the Iron Curtain, died on September 27th, aged 94

IT WOULD START with a contact from a trusted source. A discreet introduction. Then a seemingly random encounter, perhaps in the street. Only once safely indoors, and out of sight, would Brother Andrew hand over the box he'd brought with him. His contacts choked back tears when they saw what was inside. "You know, years ago I knew that people in the West were praying for us," a Romanian Christian once told him. "But now for many years we have not heard from them. We've never been able to write letters, and it's 13 years since we received one. It has come to us that we are forgotten, that nobody is thinking of us, nobody knows our need, nobody prays." As soon as he got home, he promised, he would tell so many people about the little Christian community in Romania (or Bulgaria, or Poland, or Russia—wherever he happened to be) that never again would they feel alone.

Early on, he learned about putting a hand up to volunteer for a job or stretching one out to a fellow human being. His father was up at five watering the garden to help feed his six children. Then he cycled four miles to his smithing job. His invalid mother sat in her chair at home, listening to the gospel station from Amsterdam. Sometimes it was hymns, sometimes preaching. The family was poor, even by the standards of the poor in pre-war Holland. Their house was the smallest in the village. But he never forgot the unending stream of beggars, itinerant preachers and gypsies who came to their door. In his autobiography, he recalled how "the cheese would be sliced thinner, the soup stretched with water". Sometimes they had to dig up tulip bulbs from the garden and eat them like potatoes. But no guest was turned away.

He'd never intended to be a smuggler—for God, or for anyone else. But rebellion was another seed that was sown young. He was just 12 when war came to Holland in 1940. A German lieutenant took over the burgomaster's house and began giving orders to the villagers. In the middle of the night the boy would creep down

from the loft, steal his mother's precious rationed sugar and pour it into the German soldier's petrol tank. She never said a word.

The first communist country he visited was Poland. They called it socialism there, not communism. On hearing there was to be a big festival in Warsaw, he wrote to the organisers suggesting they might teach him about socialism if he could tell them about God. You can do what you want to, they said. So in July 1955 he set off across Europe by train. In his bag were hundreds of tracts entitled "The Way of Salvation", which he intended to give away.

Religion, he learned, wasn't banned under communism; it had been co-opted by the state. In Czechoslovakia ministers had to renew their licences every two months, and submit their sermons in advance for official approval. Where they could not beat God, the authorities tried to outshine His appeal. In East Germany they offered free "Welcoming Services" instead of baptism. Or wedding services that were legal and free of charge. Those who saw God as the higher authority were told they were misguided. Many lost their jobs and were imprisoned. Children wore a red scarf as a sign that they were sceptical of their parents' so-called religious superstitions. Seeing the mass of red scarves at the end of the festival in Warsaw, he thought of a verse from the Book of Revelation. "Be watchful, and strengthen the things which remain," it said. Persecuted Christians in communist countries would otherwise die. He took it as a sign from God.

And so began his new life. The day his visa to Yugoslavia came through, a neighbour gave him his Volkswagen Beetle. "My wife and I have talked it over," the neighbour said. "And there's no un-talking us." Friends he stayed with in Berlin were enthralled at the idea of taking Bibles to the Soviet Union, he recalled. Their church had some Russian Bibles. Couldn't he take them along? He wasn't so sure. Their car was already weighed down. Then some other friends came with a whole carton of Ukrainian Bibles. "Of course we'll take them," his fellow smuggler said, stowing them openly on his lap. "If we're going to be arrested for carrying in Bibles, we might as well be arrested for carrying in a lot of them."

He learned to get around those who tried to lay down the law. Filling in visa forms, he put his occupation down as teacher rather than missionary. He stressed that he was not preaching, but bringing greetings from Holland. And at every border, he whispered the smuggler's prayer. "When you were on Earth, you made blind men see. Now, I pray, make seeing eyes blind."

He never ceased to be amazed by those he met. The people in Macedonia who were too scared to come to church unless it was dark, but come they did. The people in Bulgaria who would arrive at intervals so that at no time did it appear as if a group was gathering. It took an hour for 12 of them to assemble. A man named Petroff who spent all his pension buying up cheap Bibles whenever he found them. Pages were often missing; they'd been cut out for cigarette paper. But Petroff made them whole, matching a Book of Genesis to a Bible that did not have one. All to give the finished work to a church that had no Bible.

The courage and common humanity of those he met would have touched anyone, not just the faithful. He knew he could stop at any moment, and return to a quiet life in Holland. But he kept on carrying Bibles across borders—to Cuba, where Dutch visitors did not need a visa. To Uganda, and then across the Middle East. Soon the task was too big for one man and he founded Open Doors, a charity, to train a new generation of smugglers. In 1981 he organised Project Pearl, unloading a million smuggled Bibles onto a beach just south of Shantou City to be sent across China.

A living church

A missionary church was a living church, he believed. A sticker on his battered suitcase read: "Our God is not dead. Sorry about yours". He wished there were ten of him. He longed to split himself into a dozen parts and answer every call that came. Some day, he'd find a way to do it. And he did. ■

The data dividend: delivering a data and AI strategy that drives business value

October 25th 2022, Chicago

Join senior executives from data, analytics, AI, privacy, compliance and customer experience in Chicago on October 22nd for an afternoon of interactive networking, a moderated audience debate and informative panel discussions. We will assess how data can deliver a data and AI strategy that drives business value.



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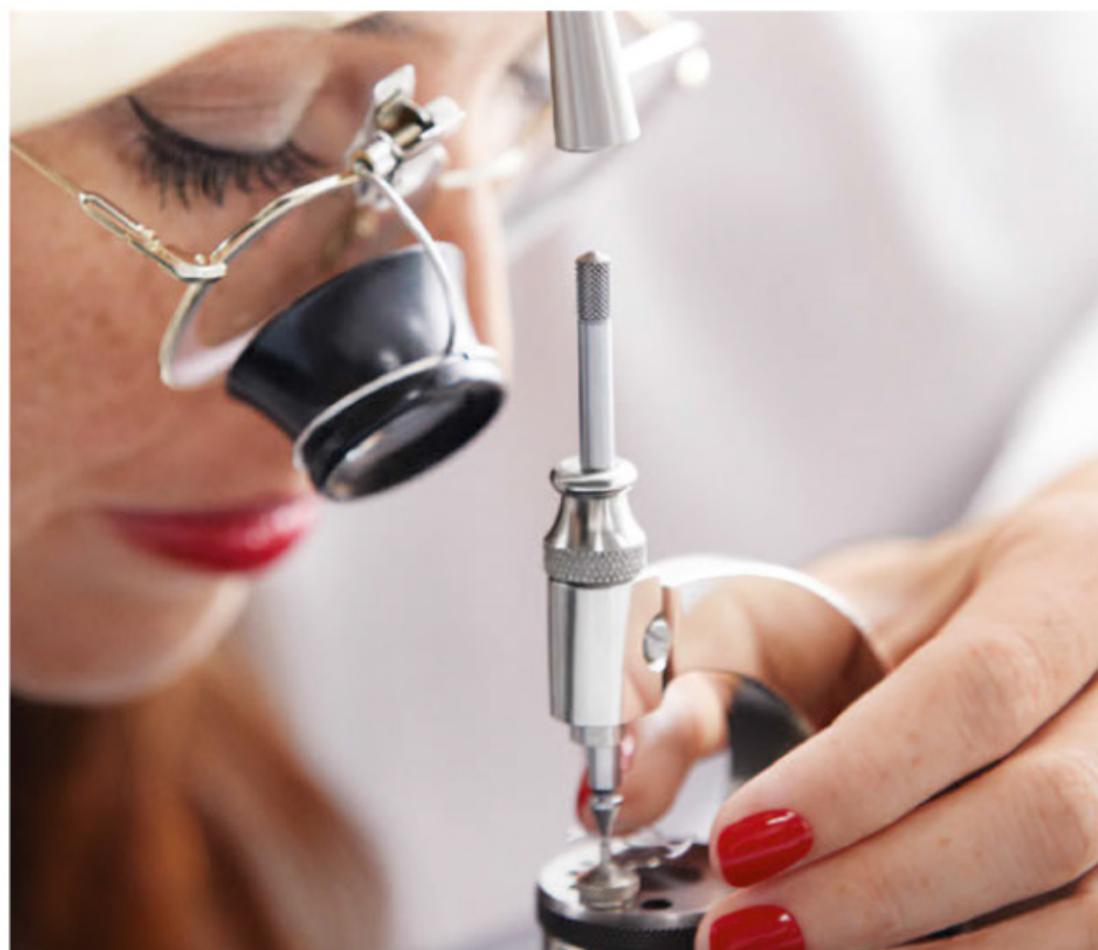
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