

The Economist

Larry Fink demonised

The greatest bank heist ever

Pulling Israel back from the brink

How to sink a Russian battleship

JULY 29TH–AUGUST 11TH 2023

**Summer
double
issue**

THE OVERSTRETCHED CEO

An illustration of a man in a dark suit and red tie, representing a CEO, being pulled in four different directions by four hands (two men, two women) gripping a thick blue strap. This imagery symbolizes being overstretched or managing multiple conflicting demands simultaneously.



LYDIA KO



BROOKE HENDERSON



ANNA NORDQVIST



A MIDSUMMER DAY'S DREAM

It is a breathtaking sight. Regal greens lodged between the pristine shores of Lake Geneva and the majestic summits of the Alps. Yet on a brisk summer day, what will truly amaze you about this tournament is the new air it breathes into the discipline's heritage. Here, the finest golfers from around the world gather every year, to put their outstanding skills to the test.

All along this women's Major, the only one to be played in continental Europe, they affirm the strength and beauty of golf's most revered traditions, thus making the game that much more spectacular. **Welcome to The Amundi Evian Championship.**

#Perpetual



OYSTER PERPETUAL
DATEJUST 36

THE
Amundi
evian
CHAMPIONSHIP

THE AMUNDI EVIAN CHAMPIONSHIP
EVIAN RESORT GOLF CLUB, FRANCE
27 TO 30 JULY 2023



ROLEX

#ModernMBA



It's Time for the Business School of the Future

Network driven. Mobile first. Innovative tuition model.

Educating the next generation of business leaders.

Do you have what it takes?

Apply now at quantic.edu

Selective Admission / Accredited / MBA and Executive MBA





On the cover

Our summer double issue leads with the challenges faced by overstretched CEOs in a world of geopolitical pitfalls: **leader**, page 11. We profile Larry Fink, the boss of BlackRock, who faced blowback for trying to get the companies his firm invests in to focus on climate change. Other treats in our 48 pages of summer features include the wild story of the biggest bank heist ever, *after page 36*

There will be no print edition next week. Our journalism continues digitally with a daily selection of editorials, columns and analysis on our app and economist.com. We will return in print on August 12th

The world this week

- 7 A summary of political and business news

Leaders

- 11 **Global business**
The overstretched CEO

- 12 **Food**
Free Ukraine's grain

- 12 **Israel's crisis**
A sad day

- 13 **Meteorology**
Drawing back the curtain

- 14 **Britain's aid policy**
Keir Starmer's test

Letters

- 16 On manufacturing, Donald Trump, London's Elizabeth line, the Palestinian Lions' Den, Greek gods, superforecasts

Britain

- 19 Foreign office blues
20 Nigel Farage and NatWest
21 London and ULEZ
22 Rising interest rates
23 **Bagehot** Right-wing Rishi



Europe

- 25 What France gets right
26 Greek wildfires
27 Missiles in Ukraine
27 Germany's pool brawls
28 **Charlemagne** Spain's populist fizzles



United States

- 29 College bargains
30 Creating an elite
32 Oppenheimer tourism
32 Child influencers
33 Left-behind places
34 Fentanyl overdoses



The Americas

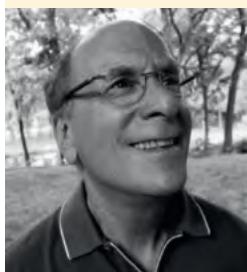
- 35 A NATO laggard
36 From K-pop to Q-pop



► **Contents continues overleaf**

SUMMER READING

Original feature writing from 1843 magazine. *After page 36*



↑
The demonisation of Larry Fink
Why is the head of BlackRock loathed by the Republican right?
Page 4



↑
History's biggest bank heist
How \$2.5bn was spirited away through the streets of Baghdad
Page 14



↑
Myanmar's Gen Z guerrillas
Deep in the rainforest, young soldiers fight for freedom
Page 24



↑
The reincarnation game
China wants to choose the next Dalai Lama. He has other plans
Page 30



↑
The hunting of the Moskva
How did Ukraine's non-existent navy sink the Russian flagship?
Page 40

Asia

- 37** North Korea self-isolates
38 South Korea does not care
39 **Banyan** Singapore sleaze

**China**

- 41** How to see a war coming
42 The fall of Qin Gang
43 **Chaguan** China turns to central planning

**Middle East & Africa**

- 44** Israel's legal chaos
45 Russia v Ukraine in Africa
46 Niger in trouble

**International**

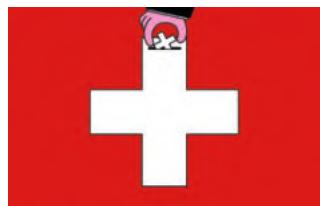
- 47** Ukraine's offensive
48 Grain exports disrupted

**Business**

- 49** China and Western firms
50 Silicon Valley slims down
51 **Bartleby** Power relations
52 Immobile telecoms
52 The EV soundscape
53 **Schumpeter** Grocery wars

**Finance & economics**

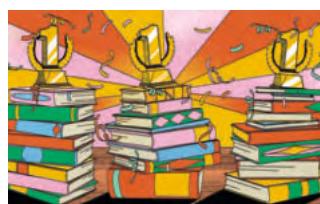
- 54** UBS expands
56 American inflation
57 Violent unrest
58 **Buttonwood** Bull market
59 **Free exchange** China stuck as number two

**Science & technology**

- 60** Better weather forecasts

**Culture**

- 63** Death of the hatchet job
64 Western journalists in Russia
65 Ultra-processed foods
66 A critical look at the American left

**Economic & financial indicators**

- 68** Statistics on 42 economies

Graphic detail

- 69** What China's air bases say about its military plans

Obituary

- 70** André Watts, a black star of classical piano

The
Economist

Volume 448 Number 9357

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

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

Subscription service

For our full range of subscription offers, including
 digital only or print and digital bundled, visit:
Economist.com/offers

If you are experiencing problems when trying to
 subscribe, please visit our Help pages at:
www.economist.com/help
 for troubleshooting advice.

To manage your account online, please visit
my.economist.com where you can also access
 our live chat service which is available 24/7.
 To call us, contact our dedicated service centre
 on 00800 77112711 or +44 (0)203 868 6843.

**PEFC certified**

This copy of *The Economist*
 is printed on paper sourced
 from sustainably managed
 forests certified by PEFC
www.pefc.org



The **Israeli** Knesset passed the first in a series of laws aimed at drastically limiting the powers of Israel's Supreme Court. Members of the opposition walked out in protest at the final reading of the bill, which passed 64-0 in the 120-strong chamber. The legislation significantly curtails the court's ability to review government decisions on the ground of "reasonableness". The White House criticised the law, saying it was "unfortunate". Israel's credit rating was downgraded. The Supreme Court has said it will hear petitions against the bill after the summer recess.

Soldiers staged a coup in **Niger**, the Sahelian country most closely aligned to the West, and said that Mohamed Bazoum had been removed as president. Two of Niger's neighbouring countries, Burkina Faso and Mali, have each had two coups since 2020.

Russia complained that Western pressure had dissuaded most African leaders from attending a **Russia-Africa summit** this week in St Petersburg, to the chagrin of President Vladimir Putin. Only 17 African heads of state and government (out of 54) were reported to have made the trip.

Guillermo Lasso, the president of **Ecuador**, declared a state of emergency in the country's prisons amid rising violence. A nightly curfew was also imposed on three coastal provinces. The measures came into force after eight people were killed over one weekend, including a mayor. Battles between rival gangs in prisons have also caused over 30 deaths in recent days.

An independent panel investigating the disappearance of 43 college students in **Mexico** nearly a decade ago issued its final report. The panel, appointed by the Inter-American Commission on Human Rights, said that members of the armed forces, navy, police and intelligence services knew of the location of the students, but had been unco-operative.

Justin Trudeau, the prime minister of **Canada**, announced a cabinet reshuffle. The ministerial changes come amid a rise in the cost of living, which has heaped pressure on the minority government led by Mr Trudeau. An election is not expected until 2025.

On the campaign trial

A judge in Florida set the date of May 20th 2024 to begin the criminal trial of **Donald Trump** over his alleged concealment of classified material at his home. The date falls after the bulk of primary contests, so the Republican candidate for president should be known by then. Mr Trump holds a strong polling lead in that race.

Hunter Biden, Joe Biden's son, pleaded not guilty to federal tax charges, after a deal with prosecutors in which he would have pleaded guilty and avoided prosecution on a gun charge started to unravel. The judge in the case told both sides to come back with a new deal.

China's foreign minister, Qin Gang, was removed from his post. Mr Qin had not been seen in public for weeks, fuelling rumours that he was being purged for personal indiscretions. Wang Yi, the previous foreign minister, has been returned to the job.

Hun Sen, **Cambodia's** autocratic leader, said he would step down as prime minister on August 10th and hand the job to his son, Hun Manet. Mr Hun Sen has ruled Cambodia for 40 years, recently winning an election in which there was no opposition. He will remain head of the governing party.

Chinese and Russian delegations attended military parades in Pyongyang, **North Korea's** capital, to mark the 70th anniversary of the end of the Korean war. It was the first public visit by officials from North Korea's allies since the start of the covid-19 pandemic. Russia's delegation included the defence minister, Sergei Shoigu.



Spain's general election resulted in deadlock. The opposition conservative People's Party took the most seats, but not enough to form a majority. It would still fall short even if it joined forces with the hard-right Vox party. The governing Socialists did better than expected, but to govern they would need the support of left-wing parties and Basque and Catalan nationalists. The PP's leader, Alberto Núñez Feijóo, is trying to form a minority government.

Ukrainian ports on the Danube, which lie just across the river from Romania, were attacked by Russia in a series of drone strikes. Ukraine has been trying to establish an alternative route for its grain exports following Russia's bombardment of Odessa and other Black Sea ports.

The IMF warned that India's ban on **exports of non-basmati white rice** could push up global food prices. India accounts for 40% of the world's total rice exports. The ban comes amid a surge in wheat futures caused by uncertainties about Ukrainian supplies.

Vladimir Putin signed a law that bans **transgender surgery** in Russia and outlaws any attempt by a person to change

their sex legally. It also annuls marriages in which one spouse is transgender.

Moldova ordered Russia to reduce the number of diplomats at its embassy in the capital, Chisinau, from 80 to 25, claiming the mission's staff were trying to undermine the government.

A group of far-right protesters set fire to copies of **the Koran** outside the Egyptian and Turkish embassies in Copenhagen. It was the latest incidence of Koran-burning in Denmark and Sweden. In Iraq outraged Muslims have set the Swedish embassy alight.

Six men were found guilty of murder in **Brussels** over a terrorist attack on the city's airport and metro system in 2016, which killed 32 people.

Cruel summer

Wildfires swept through many Mediterranean and south European countries. Dozens of people were killed in Algeria, ten of them soldiers who were trapped by fire during an evacuation.

Jim Skea was elected as the new chairman of the **Intergovernmental Panel on Climate Change**. Mr Skea is a professor at Imperial College London and co-led the IPCC's landmark reports on global warming in 2018 and climate change and land in 2019.

Three parliamentary by-elections in Tory-held seats in **Britain** provided mixed results for the Conservative government. Two of the by-elections went as scripted, with Labour taking a seat in the north and the Liberal Democrats winning one in the south-west, both with swings from the Tories of well over 20 percentage points. But the Conservatives held on, just, to Boris Johnson's former seat in west London. That emboldened Rishi Sunak, the prime minister, to claim that a Tory defeat at next year's election is "not a done deal".



Our Family Tools help keep your family safer on Instagram.

Default Private Accounts

Instagram accounts for teenagers are set to private by default, so what they post stays private to them and their followers.

Daily Time Limit

Helps you set healthy habits with your teenager by capping time spent on the app.

Supervision Tools

By setting up Supervision together, you can see who your teenager follows and who follows them back.

Explore these and our other tools and features like Sensitive Content Control, Education Hub and the Family Centre at instagram.com/familytools

We're
supporting
over $\frac{1}{4}$ million
businesses to save
for the future

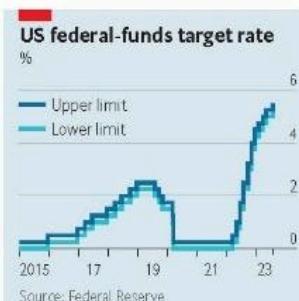


See the actions
we're taking
to help the nation

TOMORROW BEGINS TODAY



NatWest



The **Federal Reserve** resumed its policy of monetary tightening following a pause at its last meeting in June, raising its key interest rate by a quarter of a percentage point to a range of between 5.25% and 5.5%. Inflation has slowed in America. However, other indicators point to a labour market and overall economy that, while no longer "hot", have not cooled sufficiently for the ratesetters. The Fed offered few clues about its next move.

Turkey's central bank took more measures to try to control inflation, increasing the maximum interest rates charged on overdrafts and credit-card cash advances. On July 20th the bank lifted its main interest rate from 15% to 17.5%. Although that extended the bank's reversal of its previous low-rate policy, the rise was smaller than markets had expected.

The Chinese government appointed Pan Gongsheng as governor of the **People's Bank of China**. Mr Pan was confirmed as the central bank's Communist Party secretary earlier this month. It is the first time the two jobs have been combined since 2018, which may reflect the party's growing control over the financial sector. Meanwhile, the government promised to do more to aid China's "tortuous" recovery from the pandemic, but provided scant details on how it would do so.

The world economy is now expected to grow by 3% this year, according to the IMF, a slightly faster pace than its previous estimate in April. Britain is no longer expected to fall into recession, in part

because of strong consumption and less post-Brexit uncertainty. However, Germany's economy is forecast to shrink by 0.3% because of weak manufacturing output.

The Federal Reserve and the Bank of England fined UBS a total of \$387m for misconduct at **Credit Suisse**, which UBS recently acquired. The fines relate to Credit Suisse's "unsafe and unsound" practices in managing the risk from its dealings with Archegos Capital Management. Archegos collapsed in 2021, saddling Credit Suisse with a \$5.5bn loss.

A crushed Rose

Dame Alison Rose resigned as chief executive of **NatWest**, a British bank, after admitting that she was the source of an incorrect BBC story about the closure of a bank account held by **Nigel Farage**. Mr Farage helped to lead the campaign in 2016 to pull Britain out of the EU. Dame Alison told the BBC that his account had been shut at Coutts, a subsidiary of Nat-West, solely for commercial reasons. But Mr Farage obtained a dossier that showed the account was closed in part because his political views on a range of issues were "at odds" with the bank's "position as an

inclusive organisation". The affair has raised concerns about how far banks can go to withhold their services from someone with whose views they disagree.

Two of America's tech giants, **Alphabet** and **Microsoft**, reported solid increases in revenue and profit as their core businesses outperformed expectations: digital-ad sales for Alphabet and cloud-computing for Microsoft. Both companies said their spending on AI would increase over the coming quarters, which could hit profit margins.

Meta's quarterly revenue and profit also rose at a fast clip, but the loss at its Reality Labs division, which is developing the metaverse, stood at \$3.7bn. That pushes the division's cumulative losses since the beginning of last year to \$21bn.

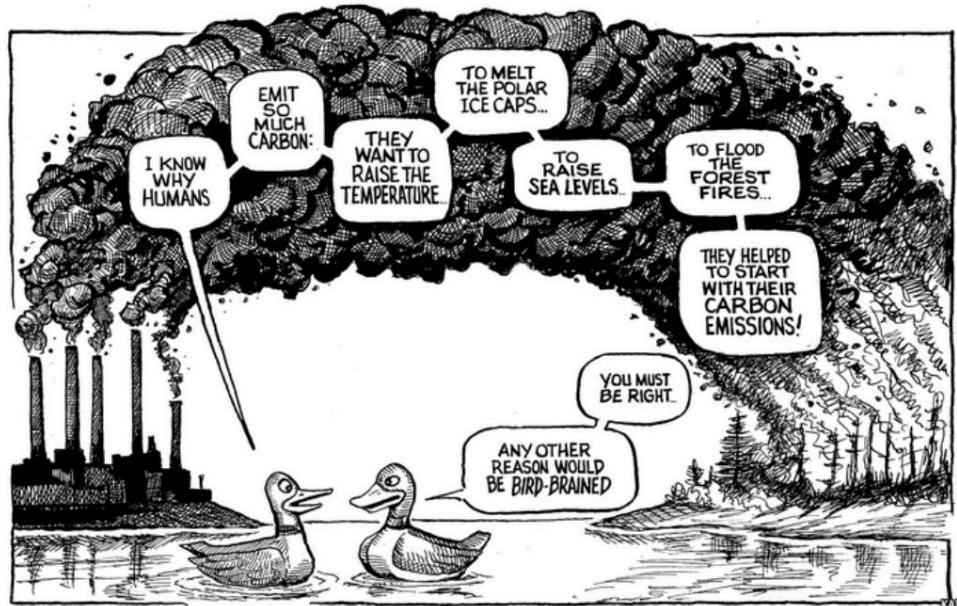
Despite surging revenues on the back of big orders for its planes, **Boeing** reported another quarterly loss. The aerospace company was dragged down this time in part by charges related to delays in some defence projects. Still, Boeing is ramping up production of commercial aircraft, and expects to deliver up to 450 737 jets this year.

Rio Tinto, a big mining company, said it would not reach its target of reducing emissions by 15% by 2025 because of engineering constraints, and the needs of integrating its ambitions with the "needs of our local communities."

"**Barbie**" won the battle of the box office against "**Oppenheimer**", taking more money in ticket receipts after both films were released on the same day. Barbenheimer made for the best opening weekend in America this year, renewing hopes for a revival in cinema attendance. Other recent blockbusters, such as "**Indiana Jones and the Dial of Destiny**", have not attracted the audiences that had been hoped for.

Er, Elon, what are you doing?

Twitter killed off its blue bird logo. The platform has been rebranded, now displaying a white "X" on a black background. The bird is not entirely dead, however, and still floats around on many mobile apps. Twitter is now officially called X, though everyone still calls it Twitter. Workmen trying to remove the old name from its headquarters in San Francisco were stopped midway by police, leaving "er" as the company's front signage.



The overstretched CEO

微信公众号：全球首发刊王

Companies are increasingly caught up in governments' competing aims. What to do?

CHIEF EXECUTIVES have long had to be contortionists, balancing the needs of employees, suppliers and above all shareholders while staying within the limits set by governments. But the twisting and stretching is now more fiendish than ever. The world is becoming dangerous and disorderly as governments try to manipulate corporate behaviour. Global companies and their bosses find themselves being pulled in all directions.

Few multinationals are unscathed. As tensions between China and America ratchet up, chipmakers from Micron to Nvidia have been the target of sanctions (see Business section). TikTok, a Chinese-owned short-video app, is in the sights of American lawmakers. The Biden administration's plans to curb outbound investment will encompass private-equity giants and venture capitalists. Once-staid carmakers now find their investments in the spotlight, as countries vie to host the next electric-vehicle factory. China's tech behemoths have been tamed by Xi Jinping. Everyone from bankers to brewers has been ensnared in America's toxic culture wars.

All this rips up the unspoken agreement between government and business that held sway in America and much of the West after the 1970s. Businesses aimed for shareholder value, by maximising wealth for their owners, promising efficiency, prosperity and jobs. Governments set taxes and wrote rules but broadly left business alone. Although the gains of the system were not evenly spread across society, trade flourished and consumers benefited from greater choice and cheaper goods.

The rules have changed. Governments are becoming more *dirigiste*, spurred by fragile supply chains in the pandemic, a more menacing China and the dangers of climate change. Company CEOs need a new approach for a new age.

Businesses' re-entry into politics began in the run-up to the Trump era. By taking a stand on social issues bosses saw a way to signal their distaste for populism—and surely also a way to signal their virtue to their employees and customers. It was around this time that Larry Fink, the boss of BlackRock, America's largest asset manager, became a proponent of investing using environmental, social and governance principles, or ESG.

Yet instead of solving social problems, that seemed only to deepen divisions. As we set out in an extended profile, Mr Fink has been demonised by the right for going too far and the left for not going far enough (see our *1843* magazine special section). He is not alone. Disney's former boss, Bob Chapek, waged a battle over gay rights with Florida's Republican governor, Ron DeSantis, one reason he lost his job. In Britain Dame Alison Rose, head of NatWest, has resigned over the bank's cancellation of the Brexiteer Nigel Farage, partly over his political views. Such encounters bruise egos but do little for the long-term bottom line.

The real front is broader and the stakes are higher. Governments seem to be everywhere all at once. They want to correct the problems of globalisation by winning back manufacturing jobs. They want to enhance national security by protecting vital technologies. And they want to fight climate change by speeding up decarbonisation.

Each aim is worthy in its own terms. But the means to bring it about are flawed, or involve trade-offs. Manufacturing jobs are not the high-earning prize they are cracked up to be. Roughly \$1trn of green subsidies in America will reduce efficiency and raise costs for firms and consumers. America says national security requires "a small yard and high fence", but unless policymakers are clear about the risks from subsidies, export controls and investment curbs, the yard is likely to get bigger and the fence grow taller. These convulsions affect big firms far more than arguments over who should use which bathroom. Yet, out of joint after the wokelash, few bosses are prepared to say so.

Some companies are wrapping themselves in the flag, so as to become national champions. That has long been the norm in places like China and India, but it is heading West. After Intel broke ground on two chipmaking fabs in America last year, Pat Gelsinger, its head, said that he "could feel the national pride welling up". Similar jingoism is on display over generative AI. Grandees of venture capital such as Marc Andreessen express horror at the risks of Chinese AI conquering the world.

Others hope that by keeping under the radar, they will avoid political flak. Taking their cue from Jack Ma, the once-outspoken boss of Alibaba who was mercilessly brought to heel by the Chinese government, CEOs have ducked out of public view. Pony

Ma, the founder of Tencent, surfaced recently only to pay lip service to new guidelines set by the Chinese Communist Party. In America Shein, a fast-fashion giant that is a favourite with Gen Z shoppers, does its best to hide its Chinese roots. So does TikTok, which says it is a "myth" that ByteDance, its owner, is Chinese. Among Western CEOs even a loudmouth like Elon Musk is learning the value of silence in

China. His recent visit to Tesla's factory in Shanghai provided no media access. He did not even tweet.

Yet both of these strategies could easily go wrong. Patriotic cheerleading is a problem when you do business elsewhere in the world. Intel is building fabs not just in America but in Germany, too. The average American multinational has eight foreign subsidiaries; a giant like General Motors has a hundred. And what the boss may see as a stealthy below-the-radar strategy can look to others like sticking your head in the sand. Just ask an American lawmaker where they think TikTok is from.

Corner-office diplomacy

What to do? In a fractious world, businesses cannot hide from politics and geopolitics. But the lesson of the wokelash is that outspokenness can backfire. When deciding whether to speak up, bosses of global firms should use long-term shareholder value as their lodestar. The more directly what they say affects their business, the more credibility they have and the less risk of appearing a fraud or a hypocrite.

This approach may include reminding politicians of the benefits that efficiency and openness once brought to economies around the world. When governments seem to contain a dearth of champions for either, that would be no bad thing. ■



Food supplies

Make Ukraine's grain Russia's loss

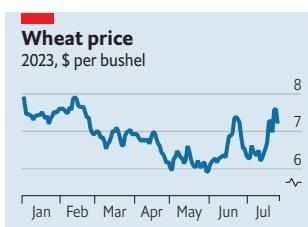
The world should press Vladimir Putin to revive the food deal with Ukraine

RUSSIA'S BELEAGUERED president took up his pen this week. In the days before a Russia-Africa summit in St Petersburg on July 27th (see Middle East & Africa section), Vladimir Putin published an article on the Kremlin's website to justify why he has abandoned the grain deal that ensured safe passage for Ukraine's crops and fertiliser. Promising to make up the shortfall, he wrote that the "so-called" deal solely enriched Western businesses, and that promises to exempt Russian exports from sanctions had been broken. Pretty much every word was false.

For a start, Russian exports of food and fertiliser, though shunned by Western businesses, are not under sanctions. What's more, the arrangement has benefited all food-importing countries. Under the deal, signed in July 2022 and overseen by Turkey and the UN, Ukraine has exported over 32m tonnes of crops. That helped lower prices, which have risen since Russia quit on July 18th and then set about destroying Ukraine's grain stocks and ports (see chart).

Mr Putin's real reason for sinking the deal was to further ruin the prospects for Ukraine's economy. Ever since the invasion stalled, Russia's strategy has been to convince the West that Ukraine cannot win a long war—and that Russia's foes had better cut their losses. Yet, after the mutiny by Wagner mercenaries in June and ructions in Russia's regular army, it became clear that time is working against Mr Putin, too. Abandoning the grain agreement is his attempt to strike back. He must fail.

If Ukraine cannot export grain, its economy will suffer. Food made up roughly two-fifths of its total exports of \$68bn in 2021. Farmers can still send limited amounts of grain by rail and by ship, via the Danube, though both are expensive. But Mr Putin has taken to attacking these alternative export routes, and European Union farmers resent falling prices in local markets. If Ukrainian farmers cannot earn enough, they will not be able to re-plant their fields, ruining the next harvest.



The blow to Ukraine's economy comes on top of its sluggish counter-offensive (see International section). Mr Putin's message is that he will inflict whatever pain it takes to keep fighting—whether on Ukraine, the world or his own people. This appeal finds an audience in the global south. Some countries sympathise with Russia; more suffer from the war and resent the West for putting off its supposedly inevitable resolution.

Ukraine's backers need to expose Mr Putin's mendacity. Forcing an unequal ceasefire on Ukraine, even if that were possible, would not bring lasting peace. The lack of Western resolve it signalled would invite Mr Putin to attack again after he had re-armed. In the meantime, he would surely continue to seek to harm Ukraine's economy by disrupting its exports.

Instead, the world should press Russia to revive the grain deal—starting at the Russia-Africa summit. African leaders have no interest in higher prices and fragile global food markets. They could berate Mr Putin, and send a grain ship to Ukraine under an African flag. In addition, Turkey has influence over Mr Putin and the motivation to wield it. As a large importer of Ukrainian wheat, it can help solve its inflation problems and earn money by selling some supplies on. Turkey is a conduit for Russian imports. Its grandstanding president, Recep Tayyip Erdogan, could win prestige as a mediator.

Ukraine's Western backers have a part to play, too, by signalling that if diplomacy fails they will use force to break an illegal blockade of international waters. Giving Ukraine long-range missiles would be a first step; offering insurance for convoys another. A last resort would be to provide them with a military escort. If Turkey exercises its right to refuse warships access to the Black Sea through the Bosphorus, some NATO members could supply air cover instead. By quitting the grain deal, Mr Putin may think he has demonstrated that he has the advantage. All he has revealed is that he is running out of options. ■

The crisis in Israel

A sad day

Israel has lurched closer to constitutional chaos. There are still ways to step back from the brink

TISHA B'AV is the saddest day in the Jewish calendar. A time of mourning and fasting, it marks the destruction of the first and second temples in Jerusalem—the result, in part, of infighting among the Jewish people. This year the commemoration began on July 26th, two days after Israel's government passed a law aimed at dramatically weakening the country's Supreme Court. The reform's many opponents see it as an act of self-destruction. The echo of Tisha B'Av only deepened their sorrow.

The vote on July 24th means that the Supreme Court will no longer be able to overturn government decisions on the ground of "reasonableness", which critics had seen as a blank cheque for

judicial meddling (see Middle East & Africa section). It has prompted a furious reaction among many Israelis. The opposition boycotted the final vote. Israelis once again flooded into the streets to protest. Trade unions are talking about a general strike. Thousands of army reservists have vowed not to turn up for duty. The day after the vote Morgan Stanley downgraded Israeli sovereign debt. In a striking criticism, America, Israel's closest ally, described the government's move as "unfortunate".

The outrage reflects—and has deepened—the divisions within Israel over the most fundamental questions surrounding the country's democratic and Jewish character. If infighting is not to ►

► threaten the Jewish state once again, politicians from all sides need to step back from the brink and search for a constitutional reform that commands broad support.

Whether or not Binyamin Netanyahu wished it, the judicial reforms have become his defining policy. The prime minister had delayed a vote in March to give time for compromise, but talks went nowhere. Even as he waited to vote in the Knesset this week, he tried in vain to persuade his allies to delay once again. Instead his coalition of far-right and ultra-religious parties forced through the reform. Just a day out of hospital for heart surgery, Mr Netanyahu looked exhausted. He faces charges of corruption that Supreme Court reform may help dismiss. By caving in to his far-right partners' threats to resign, he has made clear that he puts his own political survival above all else. He has thus given the extremists the upper hand.

Even the government's fiercest critics agree that Israel's judicial system needs reform. Many would place limits on use of the reasonableness standard, without abolishing it altogether. The committee that appoints judges has a majority of sitting justices and Bar Association representatives, leaving politicians in a minority. Because the right feels the court no longer reflects the country's views, the idea that it is self-perpetuating is harmful.

However, the way the government has rammed through its changes has fed fears that the far-right means to clear any legal obstacles to its efforts to transform Israel, whether by changing the status of religion or by annexing parts of the Palestinians' West Bank. After the vote, Yariv Levin, the hardline justice minister, declared that this was merely the first step in the coalition's plans. Some worry that the government wants legisla-



tion that would skew the electoral system to make conservative victories more likely. Because the Knesset has only one chamber, Israel risks falling into majoritarian rule—a particular threat to secular Jews and minorities, including Israeli Arabs.

The Knesset is about to go into its summer recess. That gives two months to find a way to heal a divided country. Although Mr Netanyahu is concerned with his own political survival, he must realise that if the cost is ramming through the judicial reform, he will pay with his legacy. If he does not want to be remembered as the prime minister who weakened Israeli democracy, he needs to build consensus. If he cannot find that among politicians, he should establish a broad and inclusive constitutional convention that would codify the powers of parliament and the courts.

And if Mr Netanyahu fails? The task will fall to the Supreme Court. It has said it will hold off from hearing appeals against the law until September. If the coalition is determined to pursue the reforms to their full extent the court should strike down the law. It faces a terrible choice. As the first court to reject part of one of Israel's basic laws, which is in effect the country's stand-in constitution, the court would seem to be vindicating those who say it is out of control. But failing to do so would leave all of Israel's institutions in peril.

Striking down the law would bring Israel's constitutional crisis to a head. But that would force the country's leaders to deal explicitly with how to preserve democracy. Israel's founders failed to write a constitution because they could not agree on principles such as its relationship with the Palestinians and the role of religion. It has muddled through for 75 years. If the temple is not strengthened, it may start to crumble. ■

Meteorology

Sunny spells

Weather forecasting has a bright future. More should be done to spread its benefits in the present

MANIAC, A COMPUTER designed at Princeton after the second world war, could perform a blistering 10,000 calculations a second. This extraordinary power was applied to two main problems: modelling thermonuclear explosions and the Earth's weather. They were the two most consequential applications the machine's creators could imagine.

It would have taken MANIAC the entire 13.8bn-year history of the universe to perform as many calculations as today's fastest computer can carry out in an hour. But though their abilities and ambit have increased, today's supercomputers still see a great deal of their capacity devoted to weaponry and weather. Their contributions to H-bomb design add little to most everyday lives beyond an undercurrent of dread. But their work on the weather at forecasting outfits around the world finds practical application almost everywhere.

Research from the World Bank and others puts the benefits of numerical weather prediction (NWP) at \$162bn a year. Its success can be attested to by any modern farmer or military commander. It can also be felt in the fabric of everyday life. No smartphone lacks icons redolent of sun, rain, wind or cloud. Deciding to leave an umbrella at home on a forecaster's advice is no longer necessarily a triumph of hope over experience.

The application of machine learning and other forms of artificial intelligence (AI) will improve things further. The supercomputers used for NWP calculate the next days' weather on the basis of current conditions, the laws of physics and various rules of thumb; doing so at a high resolution eats up calculations by the trillion with ridiculous ease. Now machine-learning systems trained simply on past weather data can more or less match their forecasts, at least in some respects. If advances in AI elsewhere are any guide, that is only the beginning.

What is more, in some cases the AI approach seems able to reveal aspects of the weather's behaviour that NWP cannot reach by calculation alone (see Science & technology section). And AI's lower costs will attract new entrants into the weather business. They can be expected to bring products exquisitely tailored to customers' needs and fresh ideas that open new markets.

Three things need to be done to make the most of the possibilities. One is to ensure that healthy competition does not erode basic infrastructure. The mostly governmental outfits that dominate NWP put a great deal of effort into assimilating observations from around the world into the consistent representations of the weather their models need. The costs of this can be defrayed by selling high-value forecasts into specialist markets. ►

To do their best work, AIs will need to be trained on the data in those representations. But that best work will almost certainly undercut some of the current forecasters' wares. So a modus vivendi has to be found whereby being generous with the data new entrants need to train their AIs does not leave existing forecasters too much out of pocket. To do otherwise could threaten the meticulously set up systems they use to turn observation and computation into the data sets on which the AIs and the world rely, at least for the time being.

The second thing to be done is to bring together AI and number-crunching to deal with climate change. At the moment it is not possible to run climate models at the resolution used for weather forecasting. New hardware being built for AI systems could help (Nvidia, a chipmaker, is interested). And AI could also be used to look for patterns in the projections such models produce, making them more informative, and as an interface that makes their insights more accessible to non-experts.

Before that becomes an issue, better access is needed in the

here and now. In 2019 the Global Commission on Adaptation reported that 24 hours' notice of a destructive weather event could cut damage by 30%, and that a \$800m investment in early-warning systems for developing countries could prevent annual losses of \$3bn-16bn. Accordingly, the World Meteorological Organisation has made "Early Warnings for All" by 2027 its priority. Its chief, Petteri Taalas, argues that, given three out of four of the world's people have mobile phones, it is outrageous that only half their countries have systems to warn them of disaster.

How to save some lives

No breakthroughs are required to put this right, just some modest investment, detailed planning, focused discussion and enough political determination to overcome the inevitable institutional barriers. It is not an effort in the Promethean tradition of MANIAC's begetters; it will neither set the world on fire nor model the ways in which it is already smouldering. But it should save thousands of lives and millions of livelihoods. ■

Britain's aid policy

Keir Starmer's test

The Labour leader's plans for aid and diplomacy could help define him

DEBATES OVER the duty one person owes another tend to stir strong feelings. Take foreign aid. Those on the right of Britain's Conservative Party see spending on the distant poor as a symptom of wastefulness and wokeism. Boris Johnson once called the aid department a "giant cashpoint in the sky", dishing out funds without regard for domestic interests. Those on the left of the Labour Party feel just as keenly that aid is a moral imperative and that post-Brexit Britain needs to signal more clearly than ever that it is committed to the broader world. Polls suggest that Labour will form the next government. What Sir Keir Starmer, its leader, decides on foreign policy matters. His stance on foreign aid is a test of his priorities.

The big question is how to fix the Foreign, Commonwealth and Development Office (FCDO), the mega-department formed from the merger of the aid corps and diplomatic service in 2020. Like many rushed marriages, this one has not gone well (see Britain section). Top talent is hard to lure. Funding has been cut abruptly, throwing aid projects into disarray. Other departments have pilfered its funds: about 30% of the foreign-aid budget is now spent in Britain, mostly by the Home Office to put up asylum-seekers in hotels. With little good news to share, the department has clammed up. After it stopped publishing detailed spending data, Britain has tumbled down international rankings of aid transparency. The country's cherished reputation as a leader on aid is being lost.

What might Sir Keir do? He has talked of unpicking the merger. It is easy to see why. Such a gesture would look bold, pleasing party activists who rate him as a timid centrist, lacking in flair. Those who yearn for the return of a powerful, independent aid department would cheer. Unlike many other election promises, this one would be easy to honour. Sir Keir may also believe it would burnish Britain's image. Paired with a commitment to restore a target to spend 0.7% of gross national income on aid (up

from 0.5% today), it may even yield a stirring campaign pledge.

Yet to demerge would be a mistake. One reason is the distraction and cost of re-splitting a traumatised department only just beginning to settle down. Although the execution of the merger was botched, now that the diplomats and aid experts have built one roof they are better staying under it. Another reason is that keeping aid spending and diplomacy bundled together makes sense. The main purpose of the FCDO's aid is to help the poor. But to command support at home, aid policy ought to chime with Britain's interests. Combining development with diplomacy would not alarm foreign recipients, who already suspect that aid is tied to the donor's advantage.

Instead Sir Keir needs to find other ways to make aid work better, as some senior folk in his party are now making plain. Restoring the 0.7% goal would be admirable, showing Britain is serious about being a model donor. But until the public finances improve, the more important ambition is for stability—to provide a predictable aid budget that cannot be raided by other departments. The aid minister, Andrew Mitchell, sits in cabinet and is already bringing improvements; his successor should be in cabinet, too. Giving aid specialists more autonomy would make sense, as would restoring transparency and having the FCDO co-operate better with Parliament.

Will Sir Keir resist the headline-grabbing promise of splitting the FCDO? Many voters still know little about him. His policy on aid is a chance to signal the sort of prime minister he would be. He told party activists this week, after Labour's narrow failure to win a by-election in Mr Johnson's old seat in Uxbridge and South Ruislip, not to be complacent about the general election. He is right. He needs to show that he can run a tight ship, in contrast to the administrative chaos of recent Tory governments. At times, the wisest course is to opt for a policy that brings fewer headlines. In aid, at least, Sir Keir should do just that. ■



America's industrial policy

"The manufacturing delusion" (July 15th) has gripped politicians around the world, you say. You present pro and con arguments for the money that national governments spend to build or retain a manufacturing base, but the con wins every bout. This projects more certainty in your theory and less on the reality of trade-offs.

Economics teaches us that it is rare to find a high-stakes policy decision that has no trade-offs. Or more precisely, decisions where there are no trade-offs are not even debated because the answer is self-evident. America has recently come around to implementing an industrial policy after trying the alternatives over many decades and finding them somewhat disastrous. It could be that America has learned the wrong lesson from decades of lost industrial capacity and leadership in core sectors. But I'm not so convinced. Pursuing

industrial policy has substantial risks. Forswearing industrial policy has equally many risks, especially when our chief economic and strategic competitors are currently using it to great effect.

DAVID AUTOR
Professor of economics
Massachusetts Institute
of Technology
Cambridge, Massachusetts

Planning for government

Though not a supporter of Donald Trump, I find nothing wrong in early efforts by his partisans to organise a second term if he should win the 2024 presidential election ("Chaos meets preparation", July 15th). The American system of political appointment reflects the basic democratic notion that the people should get what they vote for. Since the days of Andrew Jackson (Mr Trump's spiritual predecessor) we have charged loyalists of the president with carrying out his

mandate. Because both political parties doubt that the bureaucracy (or "deep state") can do this, we have political appointments down to the executive branch's mid-levels.

My advice to the Trump planners is to get their people into appointed jobs before they deal with civil servants at lower levels. This was the great mistake of 2017-21. Mr Trump was much better at firing than hiring. The result was a hollow government run by—guess who?—civil servants. Able appointees in previous Republican administrations learned that the bureaucracy can be led and even trusted if properly motivated. The typical civil servant (or military officer or career diplomat) knows who won the prior election and wants new direction. Yes, some careerists may seek to thwart a president's policies, but they can be dealt with creatively under existing rules.

The key is having appointees who are not only loyal to

the president but know how to succeed in their appointments. Most of all it means finding people to fill every job and getting them swiftly confirmed by the Senate.

CHASE UNTERMAYER
Director of presidential personnel, 1988-91
Houston

At least the trains run on time

Another good example of the delusions of greatness in Britain because of low expectations (Bagehot, July 8th) is the new Elizabeth line in London's transport system that everyone is so proud of. Yes, it is modern, clean, functional and aesthetically inoffensive, but is it so exceptional for one of the greatest cities in the world to build an occasional new underground line? Paris is currently constructing four of them and extending two existing lines, with 68 new stations.

When I look at the Elizabeth line, instead of feeling ➤

Developing
wind farms

Producing
oil & gas

bp's wider transformation is underway. Whilst today we're mostly in oil & gas, we've increased global investment into our lower carbon & other transition businesses from around 3% in 2019 to around 30% last year.

overly good about an infrastructure project that succeeded (they are supposed to, after all), I see missed opportunities. It does not use driverless trains, even though the technology allows it; the door-closing signals are so shrill they sound like a bomb is about to go off; the video displays do not provide useful information about the journey; driver announcements are at times barely intelligible, and so on. Perhaps I am being overly negative, but shouldn't one strive for the best instead of smugly replicating existing inferior standards and patting oneself on the back?

JEM ESKENAZI
London

Defining terrorism

You published an article under your 1843 masthead on the Lions' Den, which you labelled as "a Palestinian armed-resistance group" ("Inside the Lions' Den: the West Bank's

Gen Z fighters", July 7th). The article barely discussed Israel, instead describing the Lions' Den "resistance" against Israel's periodic incursions into the West Bank to root out those who are killing Israeli citizens in terrorist attacks.

Unfortunately, the article contained no context into which one can view these young men, who were virtually treated as heroes. Wouldn't it have been important to point out, for example, that Israeli sorties have occurred over the years in response to terrorism that has cost many Israeli lives, and not simply to punish Palestinians?

It could have also been pointed out that the second *intifada*, which in 2000 sparked a multi-year terrorist spree, was set in motion by Yasser Arafat after turning down an extremely good offer to create a Palestinian state during the peace negotiations at Camp David. It resulted in the killing of 1,000 Israelis

during an extremely difficult period of time.

You should pick your heroes much more carefully and, at a minimum, tell the full story and not a one-sided highly biased one.

ROBERT MEDNICK
Chicago

actions that set this particular Greek tragedy in motion.

Despite a century of management advice, the premise of this story will hold up a while longer.

DAN BLICKMAN
Bryn Mawr, Pennsylvania

Must do better

I was amazed that global warming didn't make the superforecasters' list of the most probable causes of catastrophes and extinction by 2100 ("Bringing down the curtain", July 15th). Greta Thunberg needs to pull her socks up. Imagine losing out to artificial intelligence.

ALLAN SUTHERLAND
Stonehaven, Aberdeenshire

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



And, not or.



Increasing investment in the transition to lower carbon energy and keeping oil and gas flowing where it's needed. That's our strategy. Right now, we're gathering weather data to help us build offshore wind farms that aim to produce enough power for the equivalent of around 6 million homes, and help the UK reach its goal of fivefold growth in wind power by 2030.

And in the North Sea, we're currently surveying beneath the seabed to hone in on the remaining oil & gas at one of our existing fields – supporting production at a time of critical demand.



Discover more
bp.com/PlansIntoAction



PATEK PHILIPPE
GENEVE



TWENTY~4 AUTOMATIC

BEGIN YOUR OWN TRADITION

PATEK.COM

Development fice partment

Fore
Con
Offi

Foreign policy

The trouble with mergers

An effort to unite Britain's diplomatic and aid corps has not gone well at all

**REFORMING
THE BRITISH
STATE**



MERGERS ALMOST always go wrong. Investors, rightly, worry when a corporate one is announced. Combining two organisations, their differing goals, incompatible IT systems and management structures, at best causes headaches. It always proves expensive. Cultures clash. People get distracted. According to the *Harvard Business Review*, 70-90% of mergers and acquisitions (M&A) deals fail. The only surprise is that the figure isn't higher.

The prospects were thus never great for a tie-up between the Foreign & Commonwealth Office (FCO) and the Department for International Development (DfID), which got under way in 2020. On one side was the diplomatic service, with lots of staff and an annual budget of some £2.4bn (\$3.1bn). On the other was DfID, with fewer staff but a budget roughly four times bigger. Cultures differed starkly. As one former official noted, the choice of footwear said it all: hard-

nosed diplomats showed up to meetings in smart office shoes; the bleeding hearts in sandals or trainers.

The success, or not, of the expanded Foreign, Commonwealth and Development Office (FCDO) has taken on totemic significance as Britain seeks a global role post-Brexit. To some, like Simon McDonald, who led the diplomatic service until 2020, it will let a fading power speak with one voice abroad. In his vision, other agencies, such as the Department for International Trade, could one day be wrapped in. To others, the deal was a hostile takeover by right-wingers bent on gutting the development corps. Awkwardly, Andrew Mitchell, who was brought in last year as the minister for development and Africa, had

→ Also in this section

- 20 Nigel Farage and NatWest
- 21 London and ULEZ
- 22 Rising interest rates
- 23 Bagehot: Right-wing Rishi

been in the second camp: he had previously called the merger a "self-inflicted act of vandalism".

Three years on, which side has been proved right? The success of an M&A deal is judged mostly on whether the two groups are doing their work better after the tie-up than before. On this score the FCDO has been struggling.

Britain remains a big spender on the needy: it set aside \$15.7bn, or 0.5% of gross national income (GNI) for doing so in 2022 and thus ranks as a donor behind America, France, Germany and Japan, but still ahead of other countries (see chart). Public opinion about that spending is split. Labour voters generally back it; the right wing of the Conservative Party, egged on by tabloids, loathes such do-goodery, associating it with waste, wokeism and handouts for corrupt African leaders.

Some Conservatives favour aid. It was a Tory government, in 2015, that signed up to spend 0.7% of GNI on it. Then Boris Johnson, as prime minister, squeezed it. As foreign secretary between 2016 and 2018, he had lamented how often DFID overshadowed its aristocratic older brother. He was most peeved on one trip to an African country, when its leader denied him an audience, only to learn that a DfID director had been granted one a week before.

Nonetheless, Mr Johnson's decision to merge diplomacy and aid was fair. Others, including Australia, Canada and Norway, have all tried doing so (albeit with mixed success). But his handling of the merger

▶ was badly botched. He announced it during the covid-19 pandemic without consulting cabinet. He did not wait for publication of the “integrated review” of foreign policy, security, defence and international development, which he had previously billed as the biggest rethink of Britain’s global stance since the cold war. He also seemed to confirm fears that this was a populist attack on aid, describing DfID as a “giant cashpoint in the sky” that dished out taxpayers’ money without care for domestic interests.

Months later the government then reneged on the 0.7% promise, abruptly cutting the budget to 0.5% of GNI, at least until public finances improved. Other departments, which have a long history of trying to grab aid spending, have meanwhile grown more adept at doing so. The share of the aid budget controlled by DfID had already dropped from 86% in 2014 to 73% in 2019. Today, less than 60% of aid is spent by the FCDO. Most striking, a large portion is siphoned off by the Home Office to pay bills at hotels in Britain that house asylum-seekers from Afghanistan, Ukraine and beyond. These huge domestic costs for refugees jumped to £3.7bn last year, almost 30% of the total aid budget.

Many people in Whitehall think the merger was bungled. The FCDO is not working better today than before. It is tough to measure its foreign-policy achievements, not least because Ukraine absorbs so much attention. But the muddled merger adds to the perception that Britain’s foreign policy in the wake of Brexit has seen barriers thrown up against the world.

For those who consider that aid buys influence abroad, the sharp cut in spending means Britain carries noticeably less weight. For Sir John Vereker, who led aid efforts when international development split from the FCO in 1997, DfID became “by common consent one of the strongest pieces of British soft power”, with a recognised brand and highly qualified staff. That argument has weakened.

It is easier to gauge the merger’s shortcomings in terms of British aid’s effectiveness. Less aid is getting to the poorest places than before (partly because of Ukraine). The share of British aid that goes to specific regions in Africa slipped to 44% in 2022 from around 50% in 2019.

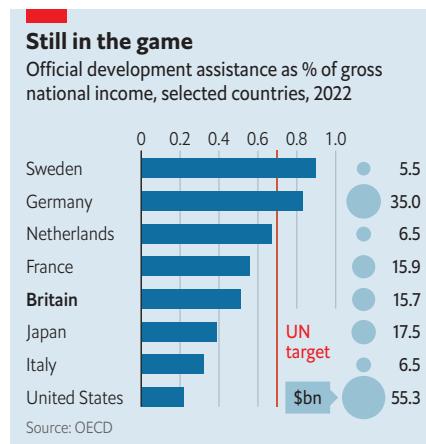
Nor is Britain, as it once was, a model on aid transparency. Unlike DfID, the FCDO seems loth to let outsiders evaluate its work. Publish What You Fund, a non-profit group that ranks donors’ openness, for years put DfID in its top spot. Under the FCDO Britain is tumbling down the rankings. Sarah Champion, chair of the international development committee in Parliament, says the FCDO has repeatedly presented “dodgy information”. Requests for data, like a breakdown of what money goes

to helping women and girls, have been unanswered. Ironically, too, the abrupt aid cuts led to the sort of frittering of funds the Tory right was so keen to stem, after the FCDO had to stop funding projects midway, often wasting what was already spent.

The merger has been costly. A project devoted to integrating the departments is expected to cost more than £40m, a new IT and human-resources system over £100m. Staff morale has dipped. Just over one in ten employees leave the FCDO every year, a relatively low churn rate for the civil service. But it has been hard to recruit top talent. By last December the government had still not filled 200 development jobs, once considered to be plum posts. In a survey of staff engagement, last year, the FCDO scored below average across Whitehall—and lower than the FCO or DFID did before the merger. “Change can be uncomfortable,” a spokesperson from the department says. “As with any merger, there will have been people from both departments who were worried.”

The department says a turnaround may, however, be under way. Development aid is inching back up the agenda at the FCDO. Mr Mitchell, a dynamic former head of DFID, has a seat in cabinet and on the National Security Council. He is working on a white paper for British aid. The Independent Commission for Aid Impact, which monitors Britain’s foreign aid, says the FCDO is being more co-operative. In an annual report published in July the FCDO said spending on bilateral aid will rise in the next financial year. Africa will get more.

Meanwhile the Labour Party is mulling a more dramatic overhaul if it wins office. Sir Keir Starmer, its leader, pledged last year to undo the merger but has more recently hinted at other options, such as keeping aid under the Foreign Office but in a free-standing agency. That would in effect be back to its status before 1997, when DfID was set up. Undoing the merger would cause another round of headaches, costs and confusion. Better, then, to work on saving a troubled marriage. ■



Nigel Farage and NatWest

Grifter 1, Bank 0

Ministers defend free speech

NIGEL FARAGE, a front man of the Brexit campaign, has sown havoc in another British institution. Mr Farage had claimed he was the victim of “blatant corporate prejudice” after Coutts, a prestigious bank, dropped him. The government agreed. Early on July 26th Dame Alison Rose, the chief executive of NatWest, Coutts’s parent group, resigned over her mishandling of the affair. At a time when businesses appear ready to dump clients at the first whiff of controversy, ministers have laid down a marker.

Banks have been under more pressure to vet “politically exposed persons” for money-laundering risks. In 2012 Coutts was hit with a £8.8m (\$11.3m) fine for lax due diligence. Since the war in Ukraine, businesses with links to Russia are under scrutiny. But an internal Coutts risk report obtained by Mr Farage concluded there was no sign of dodgy cash flows.

Rather, it said, he had been “below commercial criteria for some time”. Moreover, it assessed Mr Farage as a reputational risk: his perceived sympathy for Vladimir Putin and Donald Trump, and views on climate change, immigration, human rights and women amounted to “commentary and behaviours that do not align to the bank’s purpose and values”. Coutts has embraced Pride and Black History Month in pursuit of “trailblazers and pioneers, disrupters and challengers”. Beery Mr Farage—whose “default, ambient reputation”, the report said, was of a “disin-genuine grifter”—did not fit.

As for Dame Alison, she admitted to a “serious error of judgment” in being the source of a BBC story that wrongly stated Mr Farage was dropped purely on commercial grounds. It was an apparent breach of the first rule of banking: do not gossip about clients. She quit after government made plain its disquiet. On the same day Andrew Griffith, the City minister, also called in bank bosses for a lecture on their clients’ right to free expression. Proposed reforms will give dumped clients longer notice periods and more transparency. There is a trade-off between businesses’ need to guard their reputations by choosing clients with care, and the need for people to enter politics without repercussions. Ministers sided decisively with the latter.

The politics of clean air

Zoning out

UXBRIDGE

Expanding ULEZ in London is controversial—and necessary

AS UXBRIDGE GREW in the 1930s, one of its attractions to those moving from central London was abundant space. The suburban town lured commuters with the promise of semi-detached houses and room to park a motor car. George Orwell, who lived in Uxbridge in 1933, thought he had glimpsed a future England "along the arterial roads", where life centred around "the Picture Post, the radio and the internal combustion engine."

Orwell was right: the car's dominance in Uxbridge, and suburbs like it, is entrenched. But doubts exist over another attraction—the chance for residents to escape the city's smog. For the air is not clean. On August 29th a scheme championed by Sadiq Khan, London's mayor, will tackle this by expanding a scheme known as the ultra-low emission zone (ULEZ) to the city's outer boroughs. The initiative obliges drivers of the most polluting vehicles inside the zone to pay £12.50 (\$16) a day. On July 21st the voters of Uxbridge and South Ruislip narrowly stuck with the ruling Conservatives in a by-election. That outcome was seen by many as a rebuke to Mr Khan, a Labour man, and ULEZ.

In two other by-elections held on the same day, the Conservatives were mauled. In Selby and Ainsty (in North Yorkshire) they lost to Labour on a swing of nearly 24 points; in Somerton and Frome (in Somerset) to the Liberal Democrats on a 29-point swing. Such swings, if repeated nationally, would see the Conservatives turfed from national office. Labour has not won in Uxbridge for 50 years. Yet the election post-mortems have focused on whether it should ditch some of its green policies.

Mr Khan's plan creates the world's biggest (and an especially strict) clean-air zone. ULEZ, which snares petrol cars and vans over 19 years old and diesel ones over eight, will triple in size, and cover almost 9m residents. Milan's "Area B" is the other notable clean-air zone in Europe, says Lucy Sadler of Urban Access Regulations, which analyses policies. ULEZ will be around seven times bigger.

London, though hardly as suffocated as Delhi or Beijing, is badly polluted. Cancer, asthma and lung disease associated with high concentrations of nitrogen oxide and small particulates kill an estimated 4,000 Londoners every year, according to a study from Imperial College in 2021. Air remains dirtiest near the city centre, which has

most congestion, but the suburbs are also affected. Most deaths occur in outer London, where more people live and toxicity is falling only slowly. Those most at risk—children, the elderly, those with lung problems—tend not to be drivers.

Yet it is not just London that will have to act. By law cities across Europe, including Britain, must show they are trying to meet European Union air-quality standards adopted in 2008 (and since transposed into British law). In 2018 the High Court ruled against the government because 33 towns and cities had unsafe air and no plans for cleaning it. The government ordered them to act. Many will roll out, or expand, clean-air zones.

London has been in the vanguard. Learning from Singapore and Oslo, it introduced a congestion charge 20 years ago (see map). In 2008 it added a low-emission zone, targeting lorries. As mayor, Boris Johnson announced the original ULEZ, which arrived in 2019 and grew in 2021. That programme has helped cut the concentration of nitrogen oxide in central London by over a quarter. Along with crackdowns on idling vehicles at school gates, these policies are popular—at least in inner London, which has extensive public transport and fewer car-owners.

Elsewhere, clean-air schemes face a bumpier ride. Manchester slammed the brakes on plans for a clean-air zone this

year, following furious opposition. Similar plans in Bristol and Birmingham were greeted by concerted non-payment campaigns. (In June the French government delayed plans to expand clean-air zones in 43 towns and cities, including Paris.)

Uxbridge is particularly unforgiving territory for Mr Khan and Labour. Cut in two by the A40 and skirted by the M25, it is more car-dependent than anywhere in Greater London bar Havering. Access to public transport is poor. Many residents commute by car to nearby towns or Heathrow airport (which locals grumble is the real polluter of concern). Driving is "the only way I can work," says Sharon Jones, a cleaner. Almost 80% of households own a vehicle, in line with the national average but far above the share in central London.

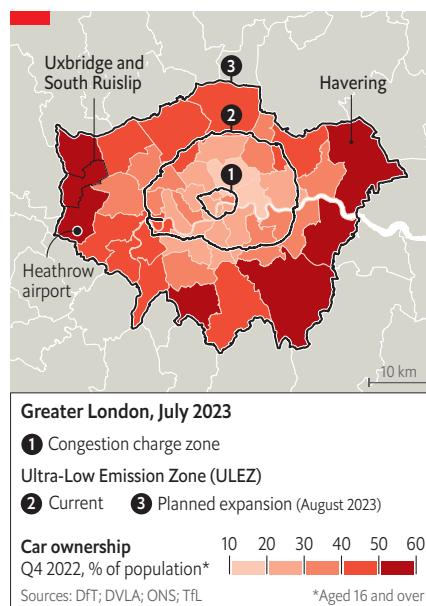
Mr Khan insists ULEZ will affect only one-tenth of vehicles on outer London's roads (opponents are disputing that figure in court). The local council has argued that the figure for Uxbridge is much higher. It is likely that some voters wrongly believed they would have to pay. Meanwhile, those forced to switch vehicles have suffered because of a rush to sell before the August deadline: resale prices for non-compliant vehicles have plunged.

The mayor can't do much about that. He lacks funds to compensate losers from ULEZ, though some argue it could have been more cleverly designed. It is not expected to raise revenues, given the implementation costs. Nor will the national government expand a £110m scheme that pays owners of old cars to scrap them. Meanwhile the mayor's new innovation, a "Superloop" bus route connecting points of outer London, looks pitifully inadequate.

Recriminations over the Uxbridge result within Labour have been rapid. Sir Keir Starmer, the party leader, has used it to warn against complacency in the next general election. He told a policy forum this week that the party is doing something wrong when its policies appear on "every Tory leaflet". Labour must abandon policies that annoy suburban voters, he said.

Yet the greater risk is probably for the Conservatives. Some in that party saw the Uxbridge result as a repudiation of green policies in general. They may now target a national policy on replacing gas boilers, as voters start worrying about the costs of that. But Britons are overwhelmingly concerned about the climate. They can see the world is burning; some literally from their sunloungers.

Mr Khan is unlikely to delay the ULEZ roll-out, though he could do a better job of explaining exactly who will be affected. But London's mayor is an unusual politician in Britain—one who does not rely on the votes of many motorists to keep his job. He is likelier, therefore, to drive ahead as planned. ■



The Bank of England

Tinker, Taylor, soldier on

How high should Britain's interest rates go?

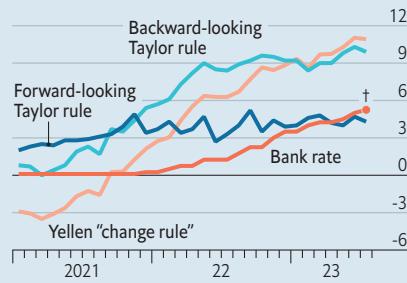
RATE-SETTERS at the Bank of England had an easy job in the 18th century. For more than 100 years, from 1719 to 1821, the central bank's policy rate was left undisturbed, at 5%. In June their rather more active successors set interest rates at the same point after 13 successive increases, designed to fight annual inflation which peaked at over 11% in October. The job is not yet done. Investors expect that on August 3rd the bank will again raise rates, to 5.25%, and will lift them by another half a percentage point by Christmas.

Not long after, the tightening will end, according to many forecasters. Optimism has grown since annual inflation was calculated to be 7.9% in June, lower than expectations. Yet economists' predictions have a poor recent record. In November the bank itself criticised as too hawkish market expectations that rates would peak merely around 5%. And, alarmingly, simple rules of thumb suggests the bank could still be well behind the curve.

The textbook formula for setting interest rates is a "Taylor rule", named for John Taylor of Stanford University. It has three inputs: the gap between current inflation and the target; how much slack is in the economy; and, last, the so-called neutral rate of interest, at which the central bank is neither stimulating the economy nor dampening it. Plug plausible assumptions for the British economy into the Taylor rule and it spits out the eye-watering recommendation of interest rates of 11.4%, up at levels last seen in 1992 when the bank was desperately trying to defend the pound against a run. Such high rates might guarantee the end of inflation but they would

Playing catch up

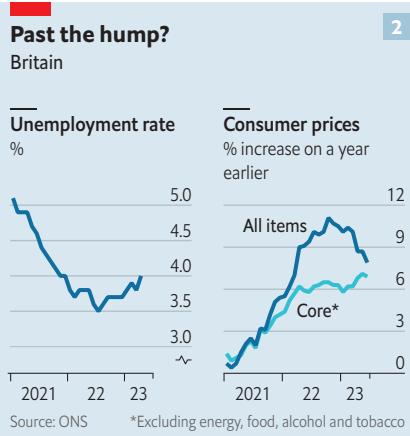
Britain, interest rates based on core inflation*, %



*Excluding energy, food, alcohol and tobacco

[†]Market expected rate on August 3rd

Sources: ONS; Bloomberg; The Economist



also doom the government and, indeed, much of the economy.

Most central bankers would take such a result as proof that the algorithm is broken. What, then, is the Taylor rule missing? Start with inflation. Britain's high headline rate partly reflects the effect of international food and energy prices, over which the bank has little control. But use core inflation, which excludes food and energy, and the Taylor rule still suggests raising interest rates to a punishing 9.9%.

Ben Bernanke, a former chair of America's Federal Reserve, once drew an analogy between monetary policy and a golfer trying to play with an unfamiliar club: taking huge swings risks dramatically overshooting or undershooting the hole. Instead, the wise golfer would gradually tap her way forwards and learn how her tool works. The central banker should do the same. Yet even an "inertial" Taylor rule, designed to avoid big swings in interest rates—and still using core inflation—would suggest the bank has been a laggard and should immediately raise rates to 6%.

Part of the problem, as the bank's chief economist, Huw Pill, has noted, is that no one truly knows how the economy works. Rules that rely on conceptually shaky concepts of the neutral interest rate or the true potential output of the economy can lead policymakers astray. The 0.5% neutral real rate of interest and 4% equilibrium unemployment rate that your correspondent has assumed reflect received wisdom but have not been scientifically calculated.

Janet Yellen, current American treasury secretary and another former Fed chair, once suggested a monetary-policy rule

that would not rely on estimates of a neutral rate of interest at all. Instead it would make small changes based only on observable data. It works like gradually adding spice to a dish, tasting it and adding more only as needed. Applied in Britain today, however, Ms Yellen's rule comes to a similar conclusion as the Taylor one does: rates should rise to 10.9%.

The only way to get the bank off the hook is to alter the exercise more fundamentally. Most Taylor rules are backward-looking. Yet it can take over a year for the effects of monetary policy to feed into the economy. The sophisticated central banker is supposed to "target the forecast" for inflation, rather than reacting too zealously to what has already happened. Otherwise, he might neglect inflationary or disinflationary pressures that are starting to build but do not yet appear in the data.

A forward-looking policy rule would therefore rely on inflation forecasts. Financial markets expect the inflation rate in two years' time to have fallen to around 3%. Inflation expectations themselves depend on predicted monetary policy. But set aside the circularity and plug the figure into a Taylor rule and it suggests the bank is in danger of raising rates too high: the recommended interest rate is only 4.3%. That helps to explain the dissents of doveish policymakers at the bank who have opposed recent rate increases.

The trouble is that inflation forecasting has gone haywire of late. In July 2022 the average forecaster surveyed by the Treasury expected inflation to fall to 3.6% by the end of 2023; today the expected figure is 4.9%. In May the bank said it had begun to pay less attention to its own model of the economy owing to its unreliability. The less confidence you have in economists' assurances that the inflation problem will soon dissipate, the trickier it is to set aside the fact that the hard data say monetary policy is still too loose. ■

Sign up to Blighty

Sign up for our weekly newsletter on Britain. Blighty includes original data journalism, correspondents' insights and recommendations from editors. Subscribers to *The Economist* can do so at economist.com/newsletters/blighty



Bagehot | No, really. Rishi is a right-winger

The prime minister is the most right-wing Conservative leader of his generation



FOLLOWERS OF Rishi Sunak on social media are treated to high politics and low culture. In one post, the prime minister accused Labour of being on the same side as “criminal gangs” who profit from smuggling people across the Channel into Britain. In another, a beaming Mr Sunak posed with his young family mulling whether to see “Barbie”, the poptastic film about the doll, or “Oppenheimer”, a biopic about the godfather of the atom bomb. “Barbie first it is,” posted the unapologetically lowbrow politician.

Mr Sunak’s perky and nerdy demeanour covers an overlooked fact: he is comfortably the most right-wing Conservative prime minister since Margaret Thatcher. Taking a hard position on asylum-seekers is just the beginning. On everything from social issues, devolution and the environment to Brexit and the economy, Mr Sunak is to the right of the recent Tory occupants of 10 Downing Street. Yet neither voters nor his colleagues seem to have noticed.

Critics dismiss Mr Sunak’s hardline position on small boats crossing the Channel as focus group-led posturing. Mr Sunak has made stemming the flow of people across those waters one of the main goals of his government. The prime minister has curtailed the right of asylum for people who arrive in small boats. A barge for 500 asylum-seekers is docked in Dorset waiting for its human cargo. Mr Sunak wants to solve the crisis in the most aggressive and prominent way. If it is all for show, it is a needlessly expensive blockbuster. There is a simpler explanation for Mr Sunak’s approach: he believes in it.

Where recent Conservative prime ministers dragged the party towards liberalism, Mr Sunak is resolutely traditionalist. David Cameron, prime minister from 2010 until 2016, backed gay marriage against the wishes of a majority of his MPs. Theresa May’s government tried to let trans people “self-ID”, so people could change gender without a medical or lengthy bureaucratic process. Those days are gone. When the Scottish National Party introduced similar rules, Mr Sunak’s government blocked them, upsetting 25 years of constitutional norms. On trans rights, Mr Sunak has picked a fight. “I know what a woman is,” says Mr Sunak. It would be an easy topic to skirt, yet the prime minister runs at it.

Each recent Conservative prime minister has boasted of their environmentalism. David Cameron extolled his green credentials

to the point of mockery, even riding a sledge within the Arctic Circle. Mrs May made “net zero” law in one of the most consequential, but least commented upon, achievements of her government. Mr Sunak’s government is a reluctant follower, keeping the same goal but grudgingly. The prime minister is “simply uninterested” in the environment, wrote Zac Goldsmith, a former minister, in a resignation letter. He is right. Any environmental obligation that stands between Mr Sunak and re-election will be ditched.

Critics within the party moan that Mr Sunak is a closet leftie: a man who was too quick to spend money when he was chancellor during the pandemic and is too slow to cut taxes now that he is prime minister. Such largesse was out of necessity, rather than choice. By instinct, Mr Sunak is the most fiscally conservative leader since Mr Cameron. Mrs May was comfortable with a larger state as was Boris Johnson, Mr Sunak’s predecessor from 2019 to 2022. By contrast, Mr Sunak winces at the idea. Mr Sunak’s idol is Nigel Lawson, Thatcher’s chancellor, who cut taxes only once it could be afforded. Mr Sunak is attempting the same path. Yet economic thinking in the Tory party has become so confused that fiscal hawkishness is painted as proto-socialist.

When it comes to Brexit, now a religious question for the Conservatives rather than a policy one, Mr Sunak was always a believer. The prime minister churned out articles for his school newspaper about the perils of a European superstate. This marks him out among former prime ministers. Mr Cameron opposed Brexit. Mrs May grinned and bore it. Mr Johnson supported it out of cynicism rather than conviction. Ms Truss learned to love it for similar reasons. Mr Sunak is alone among his peers in thinking that it was always and remains a fundamentally good idea.

Mr Sunak’s credentials as a right-winger are close to immaculate. Yet few see him this way. Partly this is a matter of age. Other prime ministers who came to power in their early 40s, such as Sir Tony Blair and Mr Cameron, tried to drag the country in a liberal direction. Mr Sunak has no such plans. Race plays a role, too. Bizarrely, given that the Conservative cabinet is filled with ethnic minorities, there is still an assumption that non-white Britons are left-leaning liberals. It is an increasingly wrong one.

Right on

Ultimately, Mr Sunak’s strange reputation is due to the scrambling of British politics after 2016, which mangled the old left-right axis. Mr Sunak’s most decisive act was to bring down Mr Johnson. If Mr Johnson was Brexit incarnate, then his assassin must be a Remainder stooge. Right-wing Brexiteers flocked to the Remain-supporting Ms Truss, who was loyal to Mr Johnson, in the leadership contest last summer; Mr Sunak relied on a rump of more liberal Tory MPs. Nor was this delusion isolated to Conservatives. After the unprofessionalism of Mr Johnson and the chaos of Ms Truss, centrists welcomed the rise of the diligent Mr Sunak, mistaking competence for liberalism. They assumed he was one of their own based on his age, manner and background rather than his views. Many of them still do.

It is this ideological dissonance that creates the danger for Mr Sunak. He is left channelling another former prime minister who had to persuade his party his views were genuine. In 2001, after New Labour had secured re-election, one party wallah asked Sir Tony if he would ditch his rightward drift. Sir Tony replied: “It’s worse than you think. I really do believe in it.” Mr Sunak is right-wing out of conviction, rather than convenience—even if few others believe it. ■

IT'S TIME TO UPDATE THE SYSTEM

1. European financial institutions are an essential part of the traditional financial system, but many rely on aging technology invented before the internet that isn't best serving them or their customers. Crypto can help make the system faster, safer, more transparent, and more equitable - for everyone.
2. A recent consumer survey suggests that the British people have made it clear they want an update. 22% of all adults in the UK hold some form of crypto, joining the ranks of over 400 million crypto users around the world - because it offers a real technological solution. If crypto users were a country, they would be the third largest nation by population in the world.
3. 66% of crypto users live in the developing world, often in places where the current system fails to meet their needs. Here in the UK, 1.3 million people are unbanked and can face high fees to use their own money. Crypto can offer people a cheaper, more efficient way to participate in the economy.
4. Crypto makes money portable - and much more accessible. At the beginning of the war in Ukraine, banks shut down and ATMs ran out of cash. With few ways to access crucial funds, Ukrainians turned to crypto to take back control of their financial freedom. Crypto is 24/7 and always with you.
5. Crypto remittances in the UK reached \$33 billion according to 2021 estimates from the World Bank, demonstrating the crucial importance of crypto technology and international transfers. Traditional financial services can be slow and expensive, while crypto transactions may offer a more efficient, transparent, and nearly instantaneous alternative.
6. Crypto isn't going anywhere. Widespread adoption has already begun, and the UK and the EU are quickly positioning themselves as industry leaders. Landmark regulations such as Markets in Crypto-Assets aim to create stable, healthy environments for important crypto innovation to flourish. This technology can help update aging financial infrastructure, giving customers more financial freedom and institutions new tools to drive innovation.

coinbase

coinbase.com/updatethesystem



The France that works

Galling success

PARIS

Behind the revolts, France is doing better than it thinks

SO FAR THIS year the French have done a fine job portraying their country as broken. Twice they have spread mayhem, and derailed a state visit, with street rebellions. The first, over a rise in the retirement age, underlined people's refusal to face up to the financing needs of the state pension system. The second, over the fatal police shooting of a 17-year-old, spoke of a failure to get law enforcement right in rough neighbourhoods. Emmanuel Macron, the president, runs a minority government that seems to lurch from crisis to crisis.

Yet behind the headlines, one of the abiding mysteries of France today is this: a country with an aversion to change, a talent for revolt and an excessive taste for taxes still manages to get so much right. Recently France has even outperformed its big European peers. Since 2018 cumulative growth in GDP in France, albeit modest, has been twice that in Germany, and ahead of Britain, Italy and Spain.

Indeed by some measures France shows

surprising vitality compared with its four biggest European neighbours (see chart on next page). This is partly due to historical decisions. France's high-speed (and green) rail network, which debuted in the 1980s, dwarfs not only America's but the average of its big European peers. France also generates some of Europe's lowest-carbon electricity, thanks not to renewables but to its nuclear industry, launched in the 1970s. This still provides 66% of France's electricity, despite maintenance issues last year at the country's 56 reactors. Six new-generation reactors are now planned.

France's performance reflects more re-

→ Also in this section

26 Greek wildfires

27 Ukraine's missile graveyard

27 Germany's pool brawls

28 Charlemagne: Spain's populists

cent choices too. It has more companies in the global top 100, measured by market capitalisation, than any other European country. It owes this largely to its luxury-goods giants, which have jumped in profitability and scale in the past decade. French luxury brands were more profitable in 2022 than American tech firms. All three of the world's top luxury firms—LVMH, Hermès and Dior—are French.

There is more to French business, though, than the hand-stitched leather clutch. France is also home to the euro zone's most valuable bank, BNP Paribas. Between 2017 and 2022 the country increased its share of global arms exports by four points, to 11%. Last year France registered more patents than the average of its big European neighbours, and nearly twice as many as Britain. On a wooded plateau south of Paris, the government is pouring billions into an innovation cluster around Saclay, designed to become a "French MIT".

Britain and Germany are still home to more of Europe's top 100 unicorns, or unlisted firms valued at over \$1bn. Yet the startup scene in Paris has been transformed. One-time pioneers such as Xavier Niel have become establishment figures. In 2019 Mr Macron promised that France would produce 25 tech unicorns by 2025; the figure was reached last year. "Business-school graduates used to prefer the security of big corporate life," says Frédéric Maz-►

zella, head of BlaBlaCar, a French ride-sharing firm and an early unicorn. "Now it's become cool to be a tech entrepreneur."

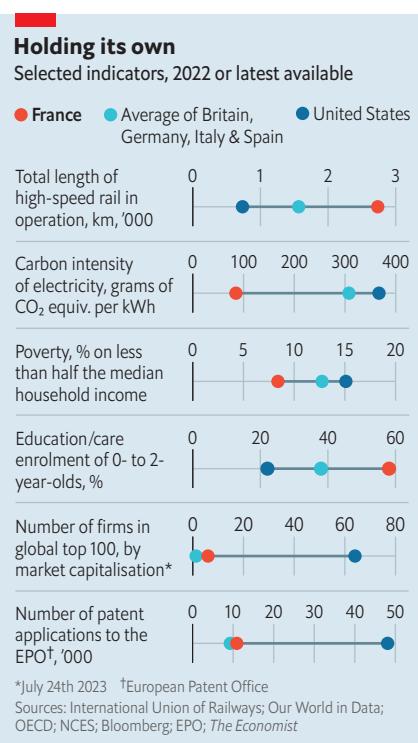
How to explain this under-hyped French performance? One recent factor is the global revival of state interventionism, newly fashionable even in America and Britain. In France this tradition goes back to Louis XIV's finance minister, Jean-Baptiste Colbert, and was revived by government central planners after the second world war as *le Plan*. The EU is now less strict about public subsidies, leaving France freer to indulge its core instincts.

Take the four gigafactories being built in "battery valley" in northern France. This reaches from the port of Dunkirk to Douvrin and Douai in the old mining basin. When, or if, fully operational it will make France one of the biggest electric-battery producers in Europe. State handouts helped to persuade ProLogium, a Taiwanese firm, to build the factory in Dunkirk. Roland Lescure, France's industry minister, argues that it was "not just about subsidies" but "reliable, low-carbon energy supply" as well as "accelerated planning procedures and the growing battery ecosystem". Batteries will roll off the production line in Douvrin this year, only two years after the first planning application was lodged.

A second explanation is the fine-tuning of a set of social preferences. The revolutionary-minded French like to think that theirs has become a deeply unequal society. The feeling is reinforced by the soaring wealth of their billionaires, while inflation squeezes ordinary people's budgets. This year Bernard Arnault, head of the LVMH luxury empire, became the world's richest man for a time, worth \$21bn (before ceding to Elon Musk). In 2022 six of the top ten European billionaires were French. Mr Macron, who reduced the wealth tax to a mere mansion tax, is seen by his detractors as the *président des riches* bent on loosening labour protection and curbing benefits.

Yet France on Mr Macron's watch has managed to combine a more favourable attitude towards wealth creation with a welfare state that still does a better job than its big peers at correcting inequality. The French poverty rate is well below the average of its European neighbours, and little over half America's. Nursery education, a proven means of improving life chances for lower-income groups, is now compulsory from the age of three. The French live six years longer on average than Americans, and far fewer are obese. Their jobless rate, at 6.9%, is at its lowest in 15 years. Despite Mr Macron's reforms, the French state still takes more in taxes as a share of GDP than any OECD country bar Denmark—and devotes more to social spending.

A final factor is policy stability. Mr Macron is the first president in 20 years to be re-elected. Bruno Le Maire has been fi-



nance minister for the longest consecutive period under the Fifth Republic. The pair vowed not to put up taxes, and have stuck to it. An annual confab of foreign corporate titans, invited by Mr Macron to "Choose France", has turned into a sought-after elite event. This year over 200 of them jetted in

to be dined at Versailles, jointly announcing another €13bn (\$14.4bn) of investments. Morgan Stanley is nearly doubling its headcount in Paris. Pfizer is doubling to €1.2bn its investment in the country over the next four years. "The reality is that there is a long-term trend towards greater attractiveness," says Ludovic Subran, chief economist at Allianz, a German insurer.

France has not got everything right, far from it. There are genuine concerns about standards in state schools and regional access to health services. Politics remains polarised and society anxious. Average real wages have been flat, not rising as in America. All those French subsidies and infrastructure projects come with an eye-watering price tag. The public finances are stretched, partly by capping energy bills to protect consumers from the cost-of-living crisis, which is only slowly being phased out. France has not balanced a government budget since before Mr Macron was born.

Yet, as the French board super-fast trains on the way to their enviably long summer holidays, France's model continues to defy those who predict its collapse. A recent analysis by Sam Bowman, a British commentator, puzzled over France's relative wealth, despite high taxes and tight labour laws. Better infrastructure, simpler planning and housing supply, cheaper child care and abundant energy seemed to explain it. "France gets so much wrong," he concluded, "and yet it still does pretty well on the metrics that actually matter." ■



Grecian burn

Wildfires have destroyed thousands of hectares of forest on Greek islands, forcing the evacuation of over 30,000 tourists and locals from Corfu, Evia and Rhodes. With temperatures above 40°C (104°F), a week-long blaze caused chaos on Rhodes, where some tour operators cancelled flights until August. On Corfu and Evia holiday-makers fled luxury villas on the coast. Efthymios Lekkas, a natural-disaster expert, blamed "an unprecedented heatwave...combined with very strong winds". Several EU countries and Turkey sent firefighters and water-dropping aircraft to join local forces. On July 25th an old Greek air-force firefighting plane crashed in Evia. With the *meltemi* (annual northerly winds) expected to strengthen, there may be little respite ahead.

Ukraine's missile cemetery

Cold cases

KYIV

Dissecting Russian rockets for clues

THE MISSILES line up like headstones: tipped on their sides, ordered by family and final resting date. Grass grows around them, where leaked fuel has not killed it. Walking among them is like browsing a catalogue of Russia's war effort. There are cruise missiles, ballistic missiles, glide bombs, free-fall bombs and twisted components: wires, circuit boards, gyroscopes, lenses, casing and cladding. All of this metal fallen from the sky has been collected in a secret study centre near Kyiv. "If you are going to battle something," says Colonel Mykola Danilyuk, "you need to first understand what you are dealing with."

Ukraine's missile graveyard was launched in the spring of 2022. When the centre's officers arrive at an impact site, they must first figure out what projectile hit it. Then they look for serial numbers or other markings. The more effective the missile, the less tends to be left of it. The best case is when air defence scores a hit on the engine and the rest of the missile falls intact. Then the officers can easily work out when and where it was produced and serviced, and whether it has been upgraded. Understanding the dynamics of production is key to staying ahead of the game, says "Sasha", an officer at the site.

Some news is encouraging: Russia is running down its missile stockpiles. The most recent arrivals were built in the second quarter of 2023. But the high rate of use shows the Russians have stepped up production. They appear to be prioritising their most effective cruise missile, the air-launched Kh-101. This is increasingly their weapon of choice, says Colonel Danilyuk: able to fly low to avoid detection and to change direction dozens of times. A typical attack comprises several strike groups, including Kh-101s and drones. "One group might attack Kyiv from the north, and a second group will make figure-of-eight turns before striking an airbase in Odessa."

Russia is modernising its missiles in the midst of war. Kh-101s recovered in 2022 had a homing system using one optical sensor; the latest have three. Such findings change Ukraine's calculations about how to fight them, says Sasha. Earlier in the war, he says, studying the optical contrast seekers of Kalibr sea-launched cruise missiles allowed Ukrainians to engineer cone-shaped decoys to trick them. These are now deployed at targets such as bridges. Other findings helped air-defence forces

deal with Russian "thermal traps": clouds of projectiles released from missiles that aim to overwhelm automated systems. The Ukrainians can now tell the decoys from the real thing, says Colonel Danilyuk.

A missile's post-mortem can also reveal who built it. Remarkably, because of bureaucracy at the plant which produces the Kalibr, many components carry the names of workers who produced them. Ukraine has used this fact to publicly identify and shame them for killing civilians. "We put it to the workers that they had options: to leave or sabotage production," says Sasha. Sure enough, production stalled for a while in the winter.

Colonel Danilyuk is unimpressed by the missiles' electrical circuitry, which has not moved on from Soviet designs: "The relay box might say it was produced in 2022, but it's the same size as you saw in the 1970s." The Russians are, however, using imported microcomponents. The vast ma-

jority of those in the optical homing systems of Kh-101s came not from China, but America. These include Altera Flex logic boards, which are dual-use and so not subject to sanctions. It would be difficult to stop the flow: "You can simply order them on Aliexpress and export them in a couple of suitcases from Kazakhstan."

The experts say their 16 months of study leaves little doubt about the capacities of the military industry they are taking on. The build quality of the missiles was always impressive, they said. But Russia had not yet found a strategy to use them to turn the war, they added. The growing success of Ukrainian air-defence systems (including hand-held surface-to-air missiles that are many times cheaper than their targets) raises questions as to the viability of Russian cruise missiles in modern warfare. "In non-nuclear mode, they haven't been precise or destructive enough to make a strategic difference," says Sasha. ■

Germany's pools

Law and order at the Lido

BERLIN

Germany tries to stop brawls in public pools

SUMMER IN BERLIN is not dull this year. More than 100 police spent July 20th chasing reports of a stray lion. None turned up; it was probably a wild boar. So Berliners returned to the other big local debate: whether police should patrol municipal pools to prevent brawls.

Both Friedrich Merz, the head of Germany's opposition Christian Democrats (CDU), and Nancy Faeser, the Social Democratic interior minister, are in favour. The police union is not. Cops, it says, are not trained to be *Bademeister* (lifeguards); in Germany, world champion of occupational licensing, the job requires a three-year apprenticeship. One idea is to restrict pools to families with children during peak hours.

Fights at pools are nothing new, but the frequency and violence have risen lately. In the past four weeks Eric Voss of the German society for bathing culture has tallied around 20 brawls or assaults in Germany's 2,800 public outdoor pools. Some stem from cultural clashes between immigrant groups or residual frustration from pandemic lockdowns. A new factor is high inflation that has made vacation trips unaffordable. "We have all become more thin-skinned and more selfish," says Peter Harzheim, Germany's head lifeguard.

What to do? Mr Harzheim favours video surveillance, guards and requiring bathers to sign in with an ID (which recently became mandatory in Berlin).

He also thinks crimes at pools need to be punished faster. (The CDU wants miscreants hauled before a judge on the same day; Mr Harzheim finds this unrealistic.) Some pool operators deploy volunteer mediators. In Stuttgart their blue shirts read *Respektlotsen* (respect guides), in Berlin *Cool am Pool*.

Unsurprisingly, the far-right Alternative for Germany party is diving in, blaming the fights on migrants. Sensationalist media are fanning the flames too. By autumn the heat will probably dissipate, but for now the scene at German pools is not very chill.



Don't make him use his whistle

Charlemagne | A wave of moderation

Spain shows that some voters still want the centre to hold



PEOPLE DO NOT always think through the metaphors they use. Though the phrase “meteoric rise” is common, meteors are better known for falling. Prices are said to “spike” even when their rise is not accompanied by a descent. And when people talk about “waves” sweeping Europe, they often forget a crucial feature: waves break. That seems to have been what happened to the wave of nationalist populism that failed to sweep into Spain in the general election on July 23rd.

The election was expected to hand power to a coalition of the centre-right People’s Party (PP) and, for the first time in Spain’s modern democratic history, the hard right, in the shape of a ten-year-old party called Vox. Nationalist-populist parties already run Hungary, Poland and Italy; others share power in Sweden and Finland. Getting into government in Spain would have confirmed that Europe’s populist swell was rising. Right-wingers from across the continent did their best to stir the waters. At Vox’s final campaign rally at the Plaza de Colón in Madrid (a favourite spot for nationalists, featuring the biggest national flag in Spain), Poland’s Mateusz Morawiecki, Hungary’s Viktor Orbán and Italy’s Giorgia Meloni appeared in videos cheering the party on.

Instead, Vox lost 19 of its 52 deputies. The PP came first, but even with Vox it lacks a majority, and no other party will join any coalition that includes the populists. The governing left-wing bloc headed by Pedro Sánchez, the Socialist prime minister, won fewer seats, and can reach a majority only by including a gaggle of regional separatists. Spain may have to hold new elections. The wave turned out to be one of those monsters that build far offshore, only to crash early. Why?

The reasons lie below the surface. Superficially, Vox shares many of the common bugaboos of Europe’s right: feminism and gender identity, demographic decline, immigration and the “religion” of climate change. Yet until recently it was unusual in rarely bashing the EU. Spain has profited so handsomely from its membership since 1986—rising living standards, good roads, high-speed rail—that running against Europe seemed suicidal. In this campaign, though, Santiago Abascal, Vox’s leader, switched the formula. The party platform denounces Brussels bureaucrats whom “no one elected” and calls for subordinating EU law to

Spain’s (impossible under the bloc’s treaties). The profile of Jorge Buxadé, a Vox MEP and former member of the fascist Falange party, rose during the campaign. This scared some voters away.

The weakness of the ultranationalists in Spain, and in next-door Portugal, is often attributed to the living memory of far-right dictatorships that ended only in the mid-1970s. With those dictators gone, attitudes in Spain and Portugal changed faster than in almost any other European countries. In a survey in 2021, Spanish support for gay marriage was the third-highest in the EU, after only Sweden and the Netherlands. Portugal has the most liberal drug laws in Europe. Both countries’ nationalist parties have grown in recent years. But they are nowhere near the 30% that went to Marine Le Pen and Eric Zemmour in the first round of France’s presidential election last year, the 35% taken by hard-right parties in Italy’s latest election or the roughly 20% each in Sweden and Finland.

What seems to best explain the surge and then recession of Vox is a factor entirely specific to Spain: the question of Catalan independence. Vox’s first big moment came after Catalonia’s separatist leaders staged an unconstitutional independence referendum in 2017. That infuriated huge numbers of Spaniards in other regions, not all of them conservative. Vox, which advocates abolishing Spain’s devolution of extensive powers to its regions, was perfectly placed to take advantage. Since then the independence question has receded from the headlines, in part because Mr Sánchez has deftly cut deals with separatist parties. That may have done more to undercut Vox than anything else.

Meanwhile, other wavelets that could have joined a big populist splash are instead petering out. The decade-long fragmentation of Spain’s politics, in which the two big traditional parties lost ever more voters to shiny new ones, has gone into reverse. Podemos, a far-left outfit born during the global financial crisis, is a shadow of its former self; it had to join another leftist grouping, Sumar, to survive the election. The combined vote share won by the PP and the Socialists, which had fallen to 45% in April 2019, recovered to 65%. Portugal, too, has social-democratic and conservative parties in decent nick: they won 70% of the vote last year.

The other Iberian exception

This is now a rarity in Europe. In France, the two parties that have dominated the Fifth Republic since 1958 came in fifth and tenth in the presidential elections. In Germany, the far-right Alternative for Germany is polling ahead of each of the three parties in the current government. Conservative politicians in Germany and in the Netherlands are now talking cautiously about breaking the taboo against working with the hard right. And although Spain shows that fragmentation is not irreversible, its return to the centre has left the PP and Socialists almost evenly matched. Neither can assemble a majority without parties that infuriate many Spaniards: Catalan and Basque separatists on the left, Vox on the right.

They could, of course, do what the Germans, Dutch and Danes have done in recent years and form a grand coalition. Spaniards say they want the big parties to work together. But the country has no such tradition, and there is much bad blood between the big two. Having dodged a metaphorical populist wave, Spain’s politicians would love to spend the next few weeks at the beach catching some literal ones. Instead they will have to sort out whether to cobble together a flimsy coalition, to vote yet again—probably around Christmas, so ruining another holiday season—or to listen to the majority who want the centre to hold. ■



The cost of college

Sticker shocker

WASHINGTON, DC

The idea that there is a “crisis of college affordability” does not reflect reality

THE COST of many private colleges in America has reached \$80,000 a year. The median household income in America in 2021 was \$71,000 a year. This shows that college is unaffordable. Or does it?

The consensus view is that America has a college-affordability crisis and things are getting worse. According to the Heritage Foundation, a conservative think-tank, “college costs are out of control”. Bernie Sanders, a senator from Vermont, and other progressives have pushed for free college and loan-forgiveness for years. The White House attempted a costly bail-out of student borrowers which the Supreme Court recently declared unconstitutional. Both sides are telling a similar tale. But it does not reflect reality. Most undergraduate degrees in America are actually affordable, and in many cases going to college is actually getting cheaper.

There are three main types of colleges in America: public, non-profit private and

for-profit private. Public colleges are much less expensive than private ones. According to US News & World Report, which ranks universities, the average annual tuition fee for students at a public college studying in their home states is about \$10,000, compared with \$40,000 for private colleges. And most American students benefit from these lower prices. In 2021, 77% of college students (about 12m) were enrolled in public colleges. Some states are

→ Also in this section

- 30 Creating an elite
- 32 Oppenheimer tourism
- 32 Child influencers
- 33 Left-behind places
- 34 Fentanyl overdoses
- Lexington is away

cheaper than others. Tuition in Wyoming costs \$6,000 per year for residents, whereas Vermont charges \$19,000.

Public colleges in America look more expensive than most of their rich-country counterparts. America ranks second-highest for fees in the OECD, a club of mostly rich countries, behind England. However, this does not give a full picture.

American universities advertise a sticker price that few students actually pay. According to the National Association of College and University Business Officers, a non-profit organisation, private colleges discount tuition by over 50% on average. And contrary to the common narrative, the net cost (what students really pay) of public and private colleges has fallen (see chart on next page).

Schools with large endowments are particularly generous. According to US News & World Report the average student at Princeton pays \$16,600 per year for tuition and fees (compared with a \$56,010 price tag), and tuition is free for families making \$160,000 a year or less. With these tuition discounts, private colleges can sometimes cost less than public ones, though public colleges are usually cheaper.

Americans also have alternative paths to a four-year degree that can help them save money. Students can attend two-year public community colleges for less than ➤

► one year's tuition cost at a four-year university degree, then apply those two years towards a four-year degree. The system is flexible: two-thirds of community-college students work and 70% attend part-time. This flexibility is unusual compared with higher education in other countries, says Simon Roy of the OECD.

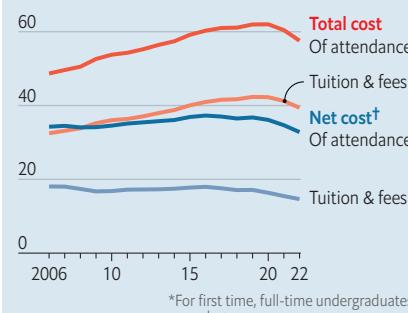
Though there are plenty of stories of students being landed with lots of debt for worthless degrees, college generally pays off too. College-educated men earn \$587,400 more over their lifetime than men who only graduated from high school (women earn \$425,100 more). This is much greater than the equivalent premium in Britain (\$210,800 for men and \$193,200 for women). "The expected gains from having a college degree are actually quite high in the US because the US is also one of the countries where income inequality is the highest," says Abel Schumann of the OECD. This inequality makes college-going worth the initial cost for most people.

Why, then, is there a perception that there is some sort of general crisis in college affordability in America? One reason is that country-level comparisons, such as the analysis by the OECD, compare the sticker price of American universities with that of their peers. Sticker prices are rising while net costs remain steady and, in some cases, drop. A report from the College Board, an NGO, shows that whereas published tuition and fees for private non-profit colleges increased from \$30,000 in 2006-07 to \$38,000 in 2021-22 (in 2021 dollars), the net price actually decreased from \$17,000 to \$15,000. The story is similar for public colleges. Published tuition and fees were nearly \$8,000 in 2006-07 and rose to nearly \$11,000 in 2021-22. Meanwhile the net cost fell by \$730.

This discrepancy between the sticker price and the net price creates confusion, but it continues because it is valuable to colleges, says Beth Akers of the American Enterprise Institute, a conservative-leaning think-tank. Wealthy students pay the full price, subsidising their poorer peers.

Nothing but net

United States, average annual costs at private, non-profit, four-year colleges*, \$000, 2022 prices



The higher prices are also good for marketing. Consumers tend to associate higher prices with higher quality. And students (and their proud parents) are flattered by tuition markdowns pitched as merit scholarships rather than discounts.

Yet even with decreasing costs and discounts, college can still seem unaffordable to many. Plenty of citizens in countries with free or low tuition do in fact pay for college. Instead of paying a tuition bill, they pay over time with higher taxes. Americans pay less in taxes, but that lump-sum tuition bill can be off-putting. For those students and their families unable to pay in cash, loans can be an answer. But accrued interest can quickly turn a reasonable cost into an unreasonable one. Here too there is some progress: a new initiative by the Biden administration will prevent interest from accruing on federal loans for people making timely payments.

College does not benefit everyone and

the quality is variable. Some for-profit colleges have become notorious for providing little value and targeting poor and non-white students. Students who chose to major in photography (or journalism) at a private college may find it takes a while to pay off their loans once they encounter the job market—but that choice may be worth it too. For the vast majority, though, college is affordable and worth attending.

Regardless of the reality, American confidence in college is declining. A poll by Gallup released this month shows that only 36% of Americans have "a great deal" or "quite a lot" of confidence in higher education. This is down from 48% in 2018 and 57% in 2015. The perceived high cost of college could be driving down these results, says Jeremy Wright-Kim, an education professor at the University of Michigan. College may be relatively affordable and worth the overall cost, but Americans are struggling to believe it. ■

Elitism

Who gets in

When it comes to Ivy League admissions, the very rich are different from you and me

THE RULING by America's Supreme Court in June that in effect banned universities from using racial preferences in admissions sparked two lively debates. Although the better publicised argument was over whether the decision represented an advance or a setback for equality of opportunity, perhaps the more interesting one focused on whether the admissions decisions of a handful of selective institutions deserved so much attention to begin with.

Just 6% of American undergraduates attend colleges that accept less than a quarter of their applicants, leaving the vast majority unaffected. Moreover, most academic analyses of the socioeconomic impact of a bachelor's degree from highly selective colleges have failed to quantify just what it is that they add. Although these universities' alumni do have unusually high incomes after leaving college, they also had unusually strong high-school qualifications before they went.

One study, by Stacy Dale and Alan Krueger of Princeton, found that those who attend higher-ranked universities do not, on average, wind up earning more money than do those who go to lower-ranked ones. This suggests that the likes of Harvard and Yale do not actually improve their students' earning prospects, but instead admit bright, ambitious applicants who are destined for success regardless of

which college they attend.

However, a working paper by Raj Chetty and David Deming of Harvard and John Friedman of Brown University, released on July 24th, refutes this interpretation. Linking together data on tax returns and tuition subsidies, standardised-test scores and universities' internal admissions records, they tracked the lives of 2.4m students who applied to top colleges between 2001 and 2015, from high school to their early 30s. The researchers' findings suggest that pupils have good reason to burnish their résumés in the hope of securing admission to highly selective colleges, because they are the most surefire route into America's economic and professional elite.

The paper also shows that the preferences these universities give to "legacies" (children of alumni), athletes and students at private high schools cause them to admit the children of America's richest families at remarkably high rates—at the expense of less privileged, better qualified applicants who would be more likely to achieve success after graduation. Eliminating these policies would improve socioeconomic diversity at such colleges. It would also improve the brainpower of America's future elites. The White House has noticed: it is now looking at whether Mr Chetty's and Mr Deming's employer, Harvard, is breaking civil-rights law. ►

The study focuses on three groups of universities: "Ivy-plus", consisting of the eight members of the Ivy League (including Harvard, Yale and Princeton) plus Duke, the University of Chicago, Stanford and MIT; "other highly selective private colleges", such as Caltech and New York University; and "highly selective flagship public colleges", like the University of California, Berkeley and the University of Michigan. Simple data on the number of alumni from the Ivy-plus group who reach positions of unusual wealth or power make clear that graduates of these universities exercise an influence that is vastly disproportionate to their small numbers. Since 1967, two-thirds of justices on the Supreme Court have been Ivy-plus alumni. So are 12% of current Fortune 500 CEOs and a quarter of sitting senators.

Separating the effect of going to one of these colleges from the selection effects (that they attract the cleverest applicants) is hard. The new study comes up with various different ways of doing so, but the most ingenious involves looking at the 10% of Ivy-plus applicants who were wait-listed—those that admissions offices thought were neither strong enough to admit outright nor weak enough to reject. Of these, 3.3% eventually get in.

The authors note that, although selective colleges tend to reach the same decision (acceptance or rejection) about students who apply to more than one of them, there is no such correlation for wait-listed students. Those who get in via a wait-list are no more likely to be accepted by other colleges than are those who are rejected. As a result, the paper assumes that all wait-listed applicants at a given college are equally strong—and thus that comparing the fortunes of those who get in and those who do not provides a natural experiment.

When examining average earnings, this approach confirmed that Ivy-plus attendance did not seem to make much of a difference. However, this broad average disguised a striking difference at the upper "tail" of the distribution: the most successful subset of Ivy-plus alumni fared far better than did the most successful graduates of other colleges. Among wait-listed students with similar test scores and whose parents had similar incomes, those who went to Ivy-plus universities were 60% more likely to be in the top 1% of earners by age 33 than those who attended leading public universities. Moreover, they were three times as likely to work for "prestigious" but not necessarily high-paying employers, such as highly ranked hospitals.

If Ivy-plus universities really do improve their students' chances of reaching the pinnacle of professional success, then the way they choose which applicants receive this benefit merits close scrutiny. And the study's second central finding is

that three factors given heavy weight by admissions offices bias their decisions in favour of applicants whose prospects for post-college success are relatively weak, but who have extremely wealthy parents.

Students whose parents earn more than 95% of Americans are no more likely than the average student with the same test scores to attend an Ivy-plus college. In contrast, those at the 99th percentile of family income are nearly twice as likely to go to one, and those in the top 0.1% three times as likely. If admissions were based solely on test scores, 7% of students at Ivy-plus colleges would come from families in the top 1% of the income distribution. In fact, this share is 16%. This is roughly comparable to the effect of racial preferences for African-Americans and Hispanics.

It takes two to make an accident

Not all of the responsibility for this belongs with admissions offices. Students from the richest families are unusually likely to apply to Ivy-plus schools, and to enroll if they are accepted. But of the total nine-percentage-point difference, around six points occur because such applicants are unusually likely to get in.

The biggest of their advantages is the preference given to legacies. On average, children of alumni are four times likelier to get into an Ivy-plus college than are non-legacies with equivalent academic records.

They are no likelier to get into Ivy-plus colleges than their parents did not attend. Nearly 15% of Ivy-plus applicants from the richest 0.1% of families are legacies.

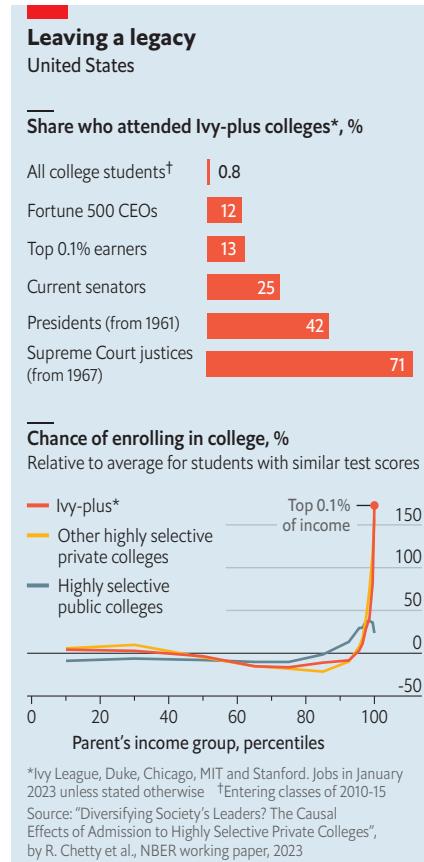
Wealthy families also benefit from selective colleges' insistence on fielding teams in dozens of sports, many of which are upper-class pastimes like rowing or lacrosse. Just 5% of Ivy-plus students whose parents land in the bottom 60% of the income distribution are recruited athletes. Among those from the richest 1% of households, this share is 13%.

The paper also identifies a third, less well-known variable that benefits the wealthy: non-academic ratings. These scores measure extra-curricular activities like theatre, debating or writing for student newspapers, which are most common at the non-religious private schools that privileged children often attend. Among applicants with equivalent test scores, admissions offices assign vastly higher non-academic ratings to students from families whose incomes are in the top 1%. Students at non-religious private schools are twice as likely to be accepted to Ivy-plus universities as students from good state schools with similar academic qualifications.

Private colleges have the right to select applicants on any basis allowed by law. They may well view a class with strong family ties to the university, a wide range of intercollegiate sports and lots of students with strong extra-curricular accomplishments as preferable to one solely composed of the brainiest applicants possible. In theory, the fact that all three of these factors boost attendance by the students whose parents are most capable of making large donations could simply be an unintended benefit. But these preferences also affect American society as a whole—and not just by perpetuating inequality.

The study's analysis of wait-listed applicants found that, after accounting for academic qualifications, parental incomes and demographic factors, Ivy-plus graduates who were legacies had a worse chance of reaching the top 1% of the income distribution than did those who were not legacies. The same was true for their odds of attending elite graduate schools or working for prestigious employers, as it was for athletes and students who were assigned high non-academic ratings.

However, students who benefited from these preferences still had better odds of achieving these measures of professional success than did similarly qualified and privileged students who did not attend an Ivy-plus school. In other words, these universities are channelling comparatively underqualified legacies, athletes and private-school graduates into positions of unusual influence. A greater emphasis on academic merit would yield not only a fairer society, but also a brighter elite. ■



Destroyer of worlds

Oppenheimer's secret city

LOS ALAMOS

A town in New Mexico is proud to be the place the bomb was invented

WALK AROUND the old historic centre of Los Alamos, New Mexico, and J. Robert Oppenheimer greets you at every turn. The local event centre—which hosted an Oppenheimer festival to celebrate the release of Christopher Nolan's new film about the father of the atomic bomb—is just off Oppenheimer Drive. A bronze statue of Oppenheimer, dapper hat and pipe included, stands on a street corner. The local pub offers Oppenheimer trivia. To pay homage to the "Trinity test" detonation of Oppenheimer's bomb in the New Mexican desert, there is Trinity Drive, Trinity Urgent Care and Trinity on the Hill Episcopal Church.

When Oppenheimer was recruited to run the Manhattan Project in 1942, he chose to build his laboratories in Los Alamos. The site, in the government's view, was an ideal place for bomb-building. The desert mesas and ponderosa pine forests offered solitude and secrecy. But Oppenheimer also had a personal reason for picking the Land of Enchantment. Early in Mr Nolan's film, Oppenheimer (Cillian Murphy) admits to being homesick for New Mexico, where he and his brother owned a ranch. "When I was a kid," he says, "I thought if I could find a way to mix physics and New Mexico, my life would be perfect."

The most notable thing about the town, apart from its history and vistas, is that it is home to the Los Alamos National Laboratory, the successor to Oppenheimer's science campus, where research on nuclear weapons continues. But the release of Mr Nolan's film has residents

rolling out the red carpet. Tourism is surging. Wendy Berhman, who runs the Manhattan Project National Historical Park, says visitor numbers have more than doubled since last year.

Locals are still starstruck, even a year after Hollywood's glitterati descended on their stretch of desert. "I believe I was there when Nolan decided to film in the Oppenheimer house," says Leslie Linke of the Los Alamos Historical Society. "I could see it in his eyes."

Mr Nolan's film dwells on Oppenheimer's internal battle between his relentless pursuit of scientific inquiry and his moral qualms about the lethal purpose of his lab's invention. Yet Los Alamos's shrines to the Manhattan Project feel more celebratory than sombre. Plaques around town salute the scientists whose work "ended world war two" and "detected global conflict". A re-examination of Oppenheimer's legacy is slowly taking place, however. Posters in the visitor centre mention the Hispanic homesteaders and tribes that were forced off their land so the government could build Oppenheimer's secret city. New Mexicans exposed to radiation from the Trinity test, known as "Downwinders", say their health was sacrificed for America's atomic advantage.

Perhaps Los Alamos's newfound fame will hasten that retelling. But for now, the town is all Oppenheimer, all the time. "Robert built that place," says Lewis Strauss (Robert Downey Jr), the film's eventual villain. "He was founder, mayor and sheriff, all rolled into one."



Come in, it's lovely

Child influencers

Of tykes and likes

NEW YORK

Regulation could disrupt the booming "kidfluencer" business

IT STARTED WITH a Lego "choo-choo train". The video shows three-year-old Ryan Kaji picking it out from the store "because I like it", he tells his mother, Loann. Back at the family home in Houston, Texas, the toddler opens the box and plays with his new toy. It's nothing out of the ordinary. But it helped make the Kajis millionaires. Loann had recorded and uploaded the video to a new YouTube channel, "Ryan Toys-Review". Eight years, many toy unboxings and 35m subscribers later, "Ryan's World", as the channel is now known, is considered YouTube royalty. He is part of a new generation of child social-media influencers (those under the age of 18) changing the shape of kids' entertainment in America—and making a lot of money in the process.

Ryan, now aged 11, and "Like Nastya", a nine-year-old with 106m subscribers, lead the charge on YouTube; they earned \$27m and \$28m in 2021, respectively, according to *Forbes*. Most social-media sites require users to be over 13, but parents or guardians can create and run accounts on behalf of their children. Kid creators speak to other kids in their videos: they play make-believe with friends and family, show off new toys and give tutorials on dancing and hand-washing. A survey in 2020 by Pew Research Centre, a think-tank, found that 81% of American parents with a child aged three to four allowed their children to watch YouTube. (YouTube Kids, which lets children of all ages navigate the site under parental controls, was created in 2015.)

Money can be made through ads on videos and by partnering with brands, which see an opportunity to reach very young audiences, sometimes paying thousands of dollars for the privilege. "If it can be a revenue source for the family, and a way for them to have new experiences or put a kid through college, why not?" asks Greg Alkalay, CEO of BatteryPOP, a kids-entertainment network that also manages child influencers. (Mr Alkalay also claims to have coined the term "kidfluencers".)

Operating these accounts once "felt more like a family business", says Allison Fitzpatrick, who represents brands and agencies in influencer negotiations at Davis+Gilbert, a law firm. Now they have been "taken over by production companies". Ryan's World partners with pocket.watch, an entertainment studio that works with 45 top kid creators and helps them to franchise. The firm has facilitated Ryan's part-►

▶nships with brands such as Nintendo and Mattel (one of his recent uploads is an advertisement for a new Mario Kart game). It has also brought his videos to children's television channels and streaming services, and his own branded merchandise—toys included—to sellers such as Target. These products have generated "hundreds of millions of dollars at retailers globally", says Chris Williams, the firm's CEO.

Some child influencers are born to "momfluencers", inheriting large followings before they have learned to walk. The LaBrants, a family based in Tennessee, have accumulated millions of followers documenting their lives online. They run Instagram accounts for each of their children; their youngest, aged one and four, already have 1.4m followers on a joint profile. Other mini influencers are sprouting. Like the grown-ups, some are ambassadors for clothing lines, or are represented by talent agencies that have traditionally worked with actors. It is a sign of how advertising has changed: spending on influencer marketing is projected to swell to \$21.bn this year, up from \$1.7bn in 2016, according to Influencer Marketing Hub.

But concerns from regulators threaten to rein in kids' earning potential. Watchdogs have accused creators of not clearly signposting sponsored content in toy videos. And in 2019 America's Federal Trade Commission (FTC) clamped down on targeted advertisements shown on YouTube videos directed at kids, accusing the social-media platform of illegally collecting data from underage users. Channels must now label content for children. The FTC is also reviewing research that suggests current advertising disclosures do not work for kids. If the commission chooses to act on this, "everything we're talking about is going to rapidly disappear and change," warns Ms Fitzpatrick.

Mommy managers

The ever-changing nature of social media has made it trickier for new stars to rise to the top. "There used to be this sense that anybody could suddenly become the next Ryan ToysReview. Now it's much harder," says Mr Alkalay. Critics argue the business is exploitative. The earnings of child actors are protected in some states under the Coogan Law, a Hollywood-inspired piece of legislation from the 1930s. Child influencers have no such protection.

Children cannot sign brand deals, so parents do so on their behalf. Production studios will suggest guidelines and choose only to work with families that follow them, but those who are just starting out might not have the same oversight. Change could be coming. In May Illinois became the first state to pass a bill to protect the privacy and earnings of child influencers.

What happens when a child influencer



ROFL all the way to the bank

grows up? "Ryan always comes first to us," say his parents in a statement to *The Economist*. "If he doesn't feel like filming, we do not force him to." The Kaji family have pivoted into educational content and cartoons, employing 30 people to help run Ryan's channel and several others under their own production company.

Other child influencers are trying to

move away from playing with toys on YouTube and into making lifestyle content on TikTok and Instagram, but may struggle to bring their audiences, who followed them for something else, with them. Then there are those who will simply tire of making videos and go back to reality. But there will always be another starlet (and another pushy parent) waiting in the wings. ■

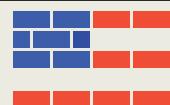
Industrial policy

\$ marks the spot

JOHNSTOWN, PENNSYLVANIA, AND WARREN, OHIO

In addition to its other aims, Bidenomics is an attempt to boost parts of the country that have been left behind

**REBUILDING
AMERICA'S
ECONOMY**



FOR SEVERAL days in late June, Ro Khanna, who represents part of Silicon Valley in Congress, travelled through some of the most un-Silicon-Valley-like places in America—eastern Ohio and western Pennsylvania. These were once thriving manufacturing hubs and are now shells of their former selves. He was there to hear people talk about how job losses at factories had affected their communities. There were stories of broken pension and health-care promises, suicide, shattered families and itinerant job-seeking.

Tim Tuinstra, a union representative, reported that one school district in southern Pennsylvania has less than half as many children entering kindergarten as graduating high school, and ruefully noted that cities across America have bars catering to fans of the Pittsburgh Steelers, an American-football team. "It's not because

people there just decided they liked the Steelers," he explained. Like the cratering school population, it's because so many people have left.

America was founded by people who left, and ever since those first ships reached the New World, Americans have been happy to up sticks and chase a brighter future. But what about those who would prefer to stay home, but feel they can't because of a lack of opportunity? Joe Biden wants to put an end to that dilemma. "I believe that every American willing to work hard should be able to get a good job no matter where they live," he explained in a speech earlier this month, "and keep their roots where they grew up."

To that end, the Biden administration has embraced "place-based" industrial policy, and has directed tens of billions of dollars to boost manufacturing capacity in struggling regions. Its bet is that this money will incentivise private-sector investment, leaving thriving factories, supply chains and grateful blue-collar Democrats in its wake. That is a tall order. ►

In recent decades richer areas have far outpaced the rest. Ranking counties by income levels in 1980 and 2021 shows growth of 172% at the 99th percentile by 2021 and 101% at the 90th, but just 55% at the 10th percentile. Big cities have done well while rural areas have lagged. The average income, adjusted for local cost of living, is around \$68,000 in cities with more than 1m people, but just \$55,000 in rural areas. Mr Khanna calls this divergence "the biggest challenge for the country".

The Biden administration thinks it can shrink this disparity through *dirigiste* industrial policy. So far Congress has authorised at least \$80bn in place-based spending (according to the Brookings Institution, a think-tank), disbursed through a range of competitive grants. The biggest-ticket items include funding authorised in the CHIPS Act, passed last year to spur American semiconductor manufacturing.

That law contains \$10bn to help create 20 regional "Tech Hubs" outside currently dominant areas such as Silicon Valley and Boston, as well as \$9.6bn for "regional innovation engines" and "collaborative innovation resource centres", designed respectively to boost research and development, and to help early-stage tech firms. Other pieces of legislation authorise billions of dollars for "regional clean-hydrogen hubs" and "direct air-capture hubs".

Although large majorities of Republicans voted against the CHIPS Act and the Infrastructure Investment and Jobs Act—the second-largest source of place-based funding—the bills passed with some votes from both parties. Framing this funding not just as largesse, or a spur to private investment, but also as a response to the national-security challenges posed by China, helped broaden its support. Mark Muro of Brookings, who is a longtime champion of place-based policy, argues that this is the beginning of a lasting shift, that "place-based growth strategy is here to stay".

That may well be true. But evidence that place-based policy actually works is mixed. Boosters point to successes such as the Tennessee Valley Authority (TVA), created in the midst of the Great Depression to help develop an area spanning seven states that was then among America's poorest regions. More recently, federal research investments and local government support helped develop North Carolina's Research Triangle.

But not every recipient of the Biden administration's funding will have three top universities, as the Research Triangle area does. And there is a difference between providing electricity to a region that had none and building entire industries from scratch. New York tried that with solar panels, spending nearly \$1bn on a Tesla factory that has fallen short of expectations.

As for the people who actually work in the places these policies are intended to help, they are hopeful but wary. "People in this area are tired of people making promises, and then just forgetting about those promises, and then guess what: four years later they're back here asking for our vote," says Jim Grant, a retired auto worker from Warren, Ohio. "Show me something."

Unfortunately, Mr Grant may have good cause for concern. Setting aside place-based policy's mixed results, Congress-watchers know there is a difference between authorising and appropriating funds. The most recent budget request from the White House appropriated 20% less than the CHIPS Act authorised. And even if all the funding comes through as promised, manufacturing jobs are not what they were when Mr Grant and his colleagues were in their prime. Industry is more mechanised, has fewer low- and mid-skill jobs and across the rich world pays less of a wage premium than it once did. The administration's desire to help places like Warren and Johnstown seems real enough. So is the risk of failure. ■



I'm gonna straighten it out somehow

Drug overdoses

Darker still

CHICAGO

Fentanyl is spreading the opioid crisis into big cities

IN A WORLD where open data makes spreadsheets with tens of thousands of anonymised entries available to the public, sometimes individual detail can still stand out. On Christmas Day last year, according to data downloaded from the Cook County medical examiner, the coroner in Chicago and its closer suburbs, four people died from opioid overdoses. One, a 34-year-old man, had apparently been taking cocaine. Another, a 43-year-old, was suffering "complications of chronic ethanolism". All four, however, were almost certainly killed by the first drug listed as cause of death: fentanyl. They were among exactly 2,000 people killed by opioid overdoses in Cook County last year, accounting for close to one in 20 of all deaths. Over the past eight years, the annual total has tripled. Nine in ten deaths involved fentanyl.

When opioids first started killing Americans in very large numbers, it was disproportionately white people, often in rural areas, who were the victims. Cities and ethnic minorities generally suffered lightly. Yet a far worse wave of death is under way now, caused almost entirely by fentanyl, an incredibly powerful synthetic opioid that can be used legally as a pain-killer, but is mostly produced by Mexican cartels and smuggled into America.

In 2021 opioid overdoses killed 80,000 Americans, according to data from the Centres for Disease Control, a government agency. The figures from Cook County suggest that cities are now being hit hard too, as are ethnic minorities. Of deaths in Cook County last year, a majority were African-American. Nationally in 2021 black Americans made up 18% of victims, up from 13% in 2018, even though deaths of people of all races continue to rise.

Because it is so potent, and so easy to smuggle, fentanyl has all but competed with heroin, made from poppies, out of the market. One Chicago-based drug dealer (who sells only cannabis) says that fentanyl pills can be had wholesale for as little as \$1 each. But that potency is also deadly: dealers using crude equipment can easily accidentally press a lethal quantity into a single pill. Sadly, that suggests death rates may not yet have peaked. ■

Correction: in last week's story on extreme heat in Phoenix, we incorrectly said Williamson County in Texas included Austin, whereas it only contains some of Austin's suburbs. Sorry.



**DIRECTORATE FOR TECHNOLOGICAL AND INDUSTRIAL DEVELOPMENT
ZONE OF REPUBLIC OF NORTH MACEDONIA**

**IS ANNOUNCING CALL FOR AWARDING A PUBLIC-PRIVATE PARTNERSHIP
CONTRACT REALIZED AS A PUBLIC SERVICE CONCESSION
FOR THE FIRST GREEN ZONE – GEVGELIJA**

Subject of concession:

Contract on the establishment of a public-private partnership for the design, construction, operating, maintenance, and finance of the technological industrial development zone Gevgelija, North Macedonia.

The Tender Documentation can be obtained free of charge in electronic form by submitting a request to the Public Partner at following e-mail address:
greenzone@fez.gov.mk

Estimated value of the contract:

approx. 120 million EUR for Phase 1

Note:

The request must contain Economic Operator's name and the electronic address(es) for further communication.

Deadline for submission of the application for participation

26.07.2023 16:00h

<https://fez.gov.mk>

Courses

18 84



**"MAKE AN INVESTMENT IN
YOURSELF THAT WILL BE
PROFITABLE"**

Fareda Sands, CBMBA Graduate
President, Initium Novum Enterprises Ltd,
Bahamas



PRIFYSGOL
BANGOR
UNIVERSITY

EXECUTIVE EDUCATION

*Cutting edge & innovative learning for
the global financial services sector*

Chartered Banker MBA

Financial Crime & Compliance MBA

bangor.ac.uk/Executive-Education



Defence spending

A NATO laggard

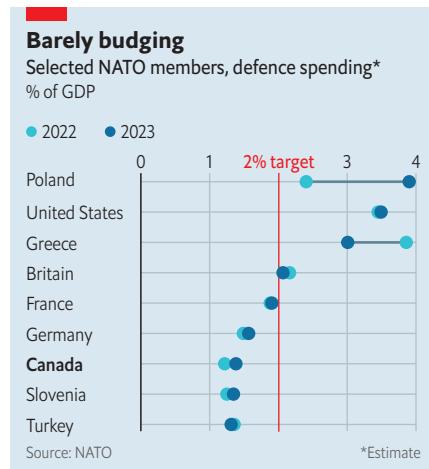
Canada's miserly defence spending is increasingly embarrassing

DESPITE ITS renowned special forces and stalwart service in Afghanistan, Canada has long been seen by its allies as something of a laggard when it comes to its defence spending. Many Canadians still recall an excruciating exchange between Donald Trump, then president of the United States, and Canada's Liberal prime minister, Justin Trudeau, at a NATO summit in 2019 when Mr Trump asked jeeringly: "Where are you at? What is your number?" Mr Trudeau had more friends at that summit than Mr Trump. But since the Russian invasion of Ukraine, Canada's position as a penny-pinching outlier has become more embarrassing for the country.

The statement of Jens Stoltenberg, NATO's secretary-general, before the NATO summit in Vilnius this month that spending 2% of national GDP on defence was no longer to be regarded as the "the ceiling" but "the floor" could have been designed to cause blushes in Ottawa. According to the alliance's latest data on defence spending, Canada's defence budget amounted to just 1.22% of its GDP in 2022. That puts it in the same company as Belgium, Luxembourg,

Slovenia, Spain and Turkey—a country whose commitment to NATO is at best shaky. All spend less than 1.4% of GDP on defence (see chart).

Following Russia's invasion of Ukraine, even former military slowcoach Germany announced its determination to meet its 2% obligation. But Mr Trudeau has not



shown much enthusiasm for bridging the gap. Leaked Pentagon intelligence documents, first reported in the *Washington Post* in April, confirmed that Mr Trudeau had told NATO allies not only that Canada would not reach the 2% commitment but that it "never" would. When Mr Trudeau was asked to confirm or deny the remark, he blandly replied: "I continue to say and will always say that Canada is a reliable partner to NATO, a reliable partner around the world. And with our military investments, with the support we give to Canadians, we will continue to be doing that."

The gulf between what Mr Trudeau intends and what NATO expects is indeed a large one. Last year the parliamentary budget officer, Yves Giroux, estimated that Canada would need to spend an additional C\$75.3bn (\$57bn) before the end of 2027 to get to the 2% target.

Yet, while Mr Trudeau remains seemingly unrepentant that his government ranks defence and security behind social spending, some effort is being put into presenting a more reassuring picture to Canada's allies. Last year, in the immediate aftermath of Russia's invasion, the government said it was undertaking a defence-policy review in the light of the changing security environment. When Canada's foreign minister, Mélanie Joly, was confronted in an interview ahead of the Vilnius summit about Mr Stoltenberg's demand for more spending, she suggested that the defence review would reflect the need "to make sure that we step up our game". ►

→ Also in this section

36 From K-pop to Q-pop

▶ However, the review is now not expected to report until next year, and any new procurements that may stem from it will be subject to delays, which in Canada's case tend to be long. Earlier this year the government finally signed a deal to spend C\$19bn on 88 F-35 fighter jets, some 13 years after the decision of the former Conservative government to buy the stealth aircraft. When campaigning to be prime minister in 2015 Mr Trudeau said he would cancel the deal. Once in power, however, he opened it up to a bidding process (which was in essence for show, as Lockheed pretty much has a monopoly on the market for the most advanced fighters).

The politicisation of procurement decisions is not the only issue Canada's defence budget faces. Another problem is that the Department of National Defence (DND) has a poor record in spending the money it has been given. According to a recently leaked DND internal report, staffing at the department's acquisitions arm is about 30% under strength, with 4,200 jobs vacant at the end of May last year. None of this bodes well for Canada's navy, which is chugging along with 30-year-old frigates and just four former British Royal Navy submarines that are even older.

A reason often given for Canada's reluctance to invest in its armed forces is that it is a long way from Europe and that the United States will always have its back. But even if Ukraine is distant from Canada, neither Russia nor China is. As Canadians are grimly aware, global warming is opening up Arctic sea lanes and making the High North an increasingly contestable strategic region. Both Russia and China are showing a close interest in Canada's backyard. If the navy is to respond to this, the money will have to be found for new frigates and submarines to give it a persistent presence in harsh conditions.

After Mr Trudeau visited South Korea in May there was speculation that the Canadian navy, which wants 12 new submarines, would push for that country's highly capable KSS-III. The submarine programme could cost around C\$60bn. The navy is also hoping to get 15 new Type-26 frigates, which would cost between C\$60bn and C\$84bn. But such decisions must await the conclusions of the review.

The paradox of Mr Trudeau's determination to brush aside his NATO spending obligations is that the country actually has a growing appetite for an enhanced security role. Polls suggest that there is support for higher defence spending, particularly among older voters. And although delayed, the F-35 purchase and the infrastructure that goes with it are a major commitment, with a total cost of about C\$70bn. So too is Canada's agreement to a NATO plan for it to lead a brigade-strength force in Latvia by 2026. Canada has also pledged to invest

nearly C\$40bn in NORAD, the North American air-defence system, over the next 20 years. But the first and last of these undertakings will occur over the long term. The funding for them will be spread out over several decades.

Whatever Mr Trudeau thinks about the NATO 2% threshold, he and Anita Anand, Canada's outgoing defence minister, have publicly committed themselves to spending more in the future. The much-touted defence review should identify what capabilities Canada needs. But the damage done by decades of complacency and neglect by governments of both parties will take many years to rectify. The consequence will be a growing tension between budgetary constraints and strategic ambition. One or the other will have to give. ■

that its performers look more like them than other pop stars do, Mr Tamayo explains. The same features he was ridiculed for at school—his prominent cheekbones, straight black hair and slight build—were what distinguished K-pop artists.

Now Mr Tamayo is making his own version of K-pop under his first name, Lenin (his mother named him after the Russian revolutionary). His compositions blend Korean-style beats and ballads mixed with Andean instruments and sounds. He writes choruses and rap interludes in Quechua, the most widely spoken indigenous language in the Americas. His videos feature choreographies infused with folk-dance moves and costumes with traditional flair, such as devil masks worn at highland parades.

His fans call it Q-pop. Mr Tamayo sees it as a platform for indigenous culture. Although indigenous peoples make up nearly a quarter of Peru's population, they tend to be underrepresented in the media. Quechua society is often depicted as a relic of Peru's Incan past, and comedians still perform brown-face skits of Andean women on TV and in film. Peruvians "have to broaden their idea of what pop culture is, because I don't fit into it," says Mr Tamayo.

Mr Tamayo is not the first non-Korean to dabble in K-pop, which itself drew inspiration from American hip-hop. But two things make his efforts distinct. For a start, because he lacks the backing of a big record label to imitate K-pop, he has more creative liberty to reinvent it. His recording studio is run by friends, and his mother helps him create his music. Mr Tamayo is also part of a generation of influencers in Peru who are building their careers on social media. Since he went viral last year, his videos have had more than 5m plays per month on TikTok, where he has more than 200,000 followers. That is small by Korean standards—but it is a start. ■

Popular music

Call it Q-pop

LIMA

Meet the Peruvian indigenous singer inspired by K-pop

AS A TEENAGER Lenin Tamayo Pinares, now 23, used to fantasise about leading a glamorous life in South Korea. His reality in Peru seemed a world apart. He grew up as an indigenous person in a country with deep-seated racism. His mother, a talented Andean folk musician, often struggled to make ends meet. Although she raised him to take pride in their Quechua culture, he was bullied at school.

K-pop offered an escape. He discovered the genre through a group of girls he befriended in secondary school. "My mind was blown," he says. Part of K-pop's appeal among indigenous youth in Peru is simply



Multicultural music-maker



North Korea (1)

Unsplendid isolation

SEOUL

Kim Jong Un has no interest in letting his country and people rejoin the world

SECURITY FROM the world has long been a guiding principle for the rulers of North Korea, a secretive hereditary dictatorship. Kim Jong Un, the current despot, took isolation to a new level during the covid-19 pandemic. The border with China was slammed shut, with the construction of a new border fence and shoot-to-kill orders against anyone attempting to cross. Travel to North Korea, already a niche pursuit at best, ceased completely. Foreign diplomats, aid workers and businesspeople left the country in droves. In contrast to other parts of the world, the shutdown continued after the pandemic. Until this week, the only people thought to have officially entered North Korea in nearly three and a half years were the Chinese ambassador and a handful of his staff.

In recent weeks speculation has grown that seclusion may at last be easing. The rumours have been fuelled by Chinese customs statistics, satellite imagery and reports from the border that suggest a mod-

est rise in trade between China and North Korea. On July 25th and 26th Chinese and Russian delegations travelled to North Korea for a military parade to mark the armistice that ended the Korean War.

Yet expectations that the regime has any serious plans for a wider opening are probably misguided. Being locked down and shut off from the world for years has been painful for ordinary North Koreans, many of whom depend on informal trade for their livelihoods. Mr Kim, by contrast, has thrived. Pandemic-era controls have allowed him to extend his power over party and people. They have also helped him advance the country's nuclear programme far from the prying eyes of the world, distracted by the war in Ukraine and America's

tetchy relationship with China. He will probably attempt to hang on to some form of that control for as long as he can.

Germophobic and xenophobic, Mr Kim handled the pandemic with a paranoid vigilance. The new threat of the virus and the old one of perceived enemies, notably "imperialist" America and its "puppets" in South Korea, commingled. Kim Yo Jong, the dictator's trusted sister, accused the South of spreading the virus via balloons released by local activists to carry anti-regime leaflets across the border. She threatened to respond "not only by exterminating the virus but also by wiping out the South Korean authorities".

Three and a half years after the pandemic began, there are few credible signs that this attitude has changed. True, the rest of the world seems impatient for the hermit kingdom to reopen. International aid agencies are preparing to send staff back to the country. In Japan a pro-North Korean newspaper is advertising tours. Much is made of reports that traders in Hyesan, one of three hubs for China-North Korea trade, are gearing up to handle higher goods volumes. Yet Mr Kim has given no official hint that these amount to much.

Given past hyper-vigilance, the reticence is hardly surprising. Why should Mr Kim rush things? Jeongmin Kim of NK News, a leading website tracking North Korea, emphasises the disadvantages to the ➤

→ Also in this section

38 South Korea's diplomatic reticence

39 Banyan: Scandals in Singapore

► regime of having bothersome foreigners back. They snoop around where they can—ready, among other things, to point to the threadbare state of the economy.

Indeed, ordinary North Koreans have been the main victims of pandemic controls. The border closure and domestic covid-era edicts put an end to much of the informal trading that was a lifeline to millions. There are reports of street vendors and pullers of delivery carts being summarily apprehended and sent to the gulag. The number of malnourished people has risen by some 10% compared with the early days of the pandemic, reckons the UN's World Food Programme.

Yet the welfare of his people is a secondary concern for the leader. Control ranks higher, points out Aidan Foster-Carter, another Korea-watcher. The pandemic-era emergency has given Mr Kim cover to expand control over all aspects of life in the country. He has continued to streamline party organisation, and has forced the powerful army to defer more to the party. Backtracking on market liberalisation, he has recentralised prices and steered more food distribution into state-run shops.

Mr Kim's expansion of control is making North Korea more alarming for the world. For whatever meagre surpluses can be squeezed from the economy flow into boosting the dictator's nuclear programme, a family obsession for three generations. Profits from the armed forces' many money-making activities can be appropriated for the same purpose. Mr Kim also controls the revenues from the state's criminal activities, including cyber-theft, which American officials say may fund as much as half the weapons programme.

The North's arsenal has increased in size and grown more diverse. New kit has been tried out, and missile launches now also test for operational readiness. Reputable estimates of the nuclear stockpile range from enough for 20 up to 116 weapons and growing. Last year the regime tested a record number of missiles. On July 12th it launched a second test of the Hwasong-18, its first solid-fuel missile capable of reaching America. Yet the launch barely registered in many Western capitals. Between Ukraine and China, America and its allies have bigger problems.

North Korea has not detonated a nuclear device since 2017. If it conducts its seventh nuclear test soon, that may indicate that Mr Kim's boffins have achieved their long-desired miniaturisation of a nuclear warhead to fit on a missile. He would then boast both strategic and tactical (that is, useful on the battlefield) nuclear weapons, as well as the means for a first- and second-strike capability against America and South Korea. Ankit Panda of the Carnegie Endowment for International Peace in Washington, DC, says that this undermines

the credibility of the allies' claim that any use of nukes by the North would lead to the annihilation of the regime. In time, that might tempt Mr Kim to use his weapons.

There are worryingly few checks left on him. China and Russia used to join UN sanctions against North Korea. But since it loudly supported Russia's invasion of Ukraine last year, they have had Mr Kim's back. Both countries now block fresh resolutions against North Korea at the UN. They undoubtedly help Mr Kim evade the existing sanctions.

America and its allies are hardly more of a roadblock. Yoon Suk-yeol, the hawkish president of South Korea, has no interest in engaging with the North (see next story). Meanwhile President Joe Biden's insistence that any American engagement must involve the North putting its nukes on the table is, for Mr Kim, a non-starter. Better to wait to see if Donald Trump, whom Mr Kim charmed at their meeting in Singapore in 2018, returns to the White House.

At some point, North Korea may feel the need to engage again with the world. For now, Mr Kim can sit back. Among the few known knowns about his activities, gleaned from satellite imagery, is that he has extended his seaside resort on the east coast, and has been spending time drifting about on his luxury yachts. ■

North Korea (2)

A little less conversation

SEOUL

South Korea's government has given up on talking to the North

THE AUTUMN of 2018 was a heady time on the Korean peninsula. Meetings earlier that year between Moon Jae-in, then South Korea's president, and Kim Jong Un, North Korea's dictator, had buoyed hopes for peace between the two Koreas and prosperity in the North. So had a bromance-laden encounter between Mr Kim and Donald Trump, America's president, in Singapore.

Coffee shops in Seoul drew pictures of Mr Kim into their milk foam as South Koreans queued around the block for Pyongyang-style cold noodles. In September 2018 Mr Moon, standing next to Mr Kim, addressed a crowd of 150,000 North Koreans in a stadium in the North's capital, something no other South Korean president had done before. He promised "to mend the broken blood ties of our people".

How times change. The talks which Mr Moon's enthusiasm helped facilitate broke down a few months later with nothing to show for them in terms of either peace or prosperity. When covid-19 struck, Mr Kim



A quiet place

sealed North Korea's border and concentrated on developing weapons (see previous story). Yoon Suk-yeol, who succeeded Mr Moon as president in 2022, has little truck with mending blood ties. Apparently keen to match the North's bellicose rhetoric, he claims that "only overwhelming force on our part will bring true peace."

Mr Yoon has matched his tough talk with shows of military readiness. South Korea and America conducted their largest-ever live-fire exercises in May and have held several rounds of trilateral missile-defence exercises with Japan (Mr Moon had scaled down drills). After publicly musing about South Korea getting its own nuclear weapons, Mr Yoon persuaded President Joe Biden to set up a forum to discuss how the Americans would use theirs in the event of war on the peninsula. A visit from an American nuclear-capable submarine, the first in over 40 years, accompanied the group's inaugural meeting. The North Korean regime protested that the sub's presence might justify using its own nuclear weapons and expressed its rage with a volley of (conventional) missiles into the sea.

At home, Mr Yoon's hard-nosed stance is making itself felt most strongly in the shake-up of an institution whose job it is to look after all things to do with North Korea: the optimistically named Ministry of Unification (MOU). Set up in 1969 by Park Chung-hee, the South's strongman ruler, the ministry facilitates inter-Korean co-operation during times of detente but also gathers information about North Korea, monitors human-rights abuses and helps refugees from the North.

Given the contradictory nature of its tasks—being reminded of their crimes tends to make North Korea's leaders less co-operative—the ministry's focus depends on the vagaries of politics. Mr Moon had its officials establish a de facto embassy in the North (which Mr Kim blew up a

▶ few months later) and devise schemes to connect the two countries by road and rail. Human-rights monitoring fell by the wayside. An annual report on North Korea's atrocious treatment of its citizens that the ministry was legally required to produce was classified for fear of upsetting Mr Kim.

Mr Yoon has said the ministry will no longer act as "a support department for North Korea" and appointed Kim Yung-ho, a conservative scholar, to lead it. At his confirmation hearing on July 19th the (South Korean) Mr Kim, who served as a human-rights envoy under two previous

conservative governments, cut a mainstream, if hawkish, figure. Yet he has said in the past that "the path to unification opens up when the Kim Jong Un regime is overthrown" and that the dialogue-based approach taken for the past 25 years had been a "scam". Should the North ever seek to return to the table, he seems unlikely to recommend taking up any offer of talks.

Tough talk on North Korea's regime tends to come with a sharper focus by the MOU on the human rights of ordinary North Koreans. There are some signs that it has begun paying more attention. In

March it published the report Mr Moon's administration would not. But even as the ministry has appeared keener to support human-rights groups, little has changed in practice, says Sokeel Park of Liberty in North Korea, an NGO.

For now, the South's reticence is matched by the North's insouciance. Yet Mr Yoon's attempts to keep up with the North's bellicosity make for an uneasy equilibrium. Talking will not persuade the North to abandon its nuclear weapons. But it may eventually become necessary to dissuade it from using them. ■

Banyan Singapore sleaze

A slew of scandals raises questions about the ruling party's governing model

IN POWER IN Singapore since 1959, the People's Action Party (PAP) has always demanded that its legitimacy be judged by its steady hand at the helm as well as by its spotless conduct. Yet uncomfortable disclosures in recent weeks have put it on the defensive. Singaporeans are dismayed at the party that has been in charge for even longer than the city state has been independent.

In mid-July the transport minister, S. Iswaran, was arrested along with a tycoon, Ong Beng Seng, who brought Formula One racing to Singapore. The Corrupt Practices Investigation Bureau (CPIB) is looking into the relationship between the two men.

Lee Hsien Loong, the prime minister, claims the arrests show that the system is working. After all, the government acted promptly—Mr Lee himself gave approval for the CPIB's investigation. Questions remain, however, not least why Mr Iswaran's arrest was only announced three days after it had taken place. Many Singaporeans think the explanation of "operational considerations" given by Lawrence Wong, the deputy prime minister and Mr Lee's successor-in-waiting, is limp.

Much harder to defend are the circumstances surrounding the departure of Parliament's speaker, Tan Chuan-Jin, once a PAP high-flyer. An innocent outsider might assume that his calling a member of the opposition Workers' Party, Jamus Lim, a "fucking populist", caught in Parliament on a hot mic, would be the clear reason for his going (Mr Lim was merely arguing that more should be done to help lower-income groups). Mr Tan later apologised for "unparliamentary" language. Yet, points out Ian Chong of the National University of Singapore, it apparently occurred to few PAP leaders

to reflect on the flagrant partisanship in a supposedly impartial post.

In Mr Lee's book the slur was the lesser sin. Worse, he said, Mr Tan was having an affair with a fellow married MP. Put aside the prime minister's staggering claim that he had found time to give marriage counselling to the peccant couple. More troubling was his admission that he had accepted Mr Tan's resignation as far back as February but asked the speaker to stay in place until he had sorted out succession arrangements for his constituency. Prolonging the tenure of a compromised speaker is surely putting party above country. Was the president informed? No one has said. Meanwhile, for the PAP, the mysterious leaking of a video which revealed that two prominent members of the opposition were also having an affair could not have come at a better time.

The government cites the Tan saga as further evidence that it keeps an eye out for wrongdoing and then acts on its findings. There is a Singaporean phrase for it: "Ownself check ownself", a form of self-monitoring that has been raised almost to

dogma by the PAP leadership.

The process was also kicked into gear following the revelation that the home and law minister, K. Shanmugam, and the foreign minister, Vivian Balakrishnan, have been renting colonial-era homes on Ridout Road from the land authority that Mr Shanmugam himself oversees. Again, the CPIB was called in. It found no wrongdoing, or favours for either minister. A review by Singapore's senior minister, Teo Chee Hean, also cleared them of any taint.

So why do Singaporeans resent the Ridout episode? Surely because, to turn the PAP's words against it, public perception matters. Reporting to the prime minister, who appoints its head, the CPIB cannot be fully independent. The senior minister is both a friend of Mr Shanmugam's and in the same branch of government. The case for an independent judge to be appointed to head such reviews is a strong one. Even if everything at Ridout Road is squeaky clean, the optics are appalling. Finding affordable housing is a big worry for cramped Singaporeans. Mr Shanmugam has a house and grounds the size of a shopping mall.

Another feature of the Singapore model follows from the party's spotlessness and steady hand: with the grown-ups in charge, liberal democratic features such as a combative press and a vigorous civil society can be dispensed with. Nothing wrong with "ownself check ownself". But if internal checks cannot ensure spotlessness and a steady hand, there is good reason to add external ones. That is a conclusion that the PAP, which is now playing whack-a-mole in going after what it says are false online comments on its various scandals in the press and online blogs, is a very long way from drawing. ■



2nd annual

Metaverse Summit

October 10th 2023 | Los Angeles

Building connections and communities through mixed reality

Bringing together senior industry leaders, policymakers, innovators and technology experts to discuss the business case for the metaverse and how to unlock new revenue streams.



Sir Martin Sorrell
Executive chairman
S4 Capital



Doug Rosen
Senior vice-president
of games and
emerging media
Paramount



Vera Chien
Executive director,
corporate research,
data and insights
Warner Bros Discovery



Susanna Pollack
President
Games for Change



Christina Wootton
Vice-president of global
partnerships
Roblox



Tony Parisi
Metaverse pioneer and
chief product officer
Lamina1



Find out more and book your ticket:
metaverse.economist.com

Lead Immersive experience sponsor

Gold sponsors

Silver sponsors

Meta

mytaverse

trooVRS

AQUENT | Studios

SIEMENS

CLEANBOX
Clean. Share. Repeat.



War and intelligence

Clues to a conflict

微信公众号：全球首发刊王

Could economic and financial indicators signal China's intent to invade Taiwan?

IN THE EARLY 1980s, during a tense period in the cold war, the Soviet Union feared that America and its allies were considering a nuclear strike and went looking for warning signs. The KGB's list of indicators ranged well beyond the military sphere. Big campaigns to donate blood, the slaughter of livestock and the movement of art might signal that an attack was coming.

Today a new kind of cold war pits America against China. And again analysts are looking for signs of a potential conflict. The most likely flashpoint is Taiwan, the self-governing island that China claims and America supports. Were China planning to invade Taiwan, its military preparations would be hard to hide (see Graphic Detail). But before troops begin to muster, other actions, of an economic and financial nature, might signal China's intent.

The Soviet Union mistook ordinary activities, such as blood drives, for possible indicators of war. When it comes to China, finding signals in the noise is even harder. The country has spent decades improving its armed forces. It routinely stockpiles food. And it has hardened its economy

against potential sanctions. All of these actions have fed fears of war—yet they do not necessarily mean that one is imminent. The challenge for Western intelligence agencies, then, is to imagine how China might deviate from this wary baseline in the run-up to an actual attack.

One area to focus on is commodities, namely energy, food and metals. China would want to secure adequate supplies of each before launching an invasion. Many of these goods come from abroad and are bought by the state, so trade data are a useful gauge of the government's intentions. Patterns that would warrant attention include large and continuous increases in supplies, sudden changes in imports or exports, purchases that go against the market and moves that are out of line with historical trends. No single data point will indicate that a war is coming. But a plausible

early-warning system might be formed by pooling observations.

Energy is a good place to start. China imports nearly three-quarters of the oil it uses. The substance accounts for only 20% of the country's energy use, but it would be crucial to any war effort. Military vehicles run on it, as do the lorries that transport supplies. If China were to start increasing its reserves—it currently has enough to last three months at today's consumption rate—that would be one of the best indicators that it is preparing for war, says Gabriel Collins of Rice University in Texas.

Detecting increases that deviate from recent trends will be tricky. Chinese imports of oil have been rising for a decade. The country is expanding its storage capacity, building underground caverns that are both more secure and harder to spy on than tanks out in the open. But in wartime China might restrict use largely to the armed forces. Signs of such rationing would be a more obvious, if late, indicator.

Gas makes up a far smaller share of China's energy mix, but it may still hold clues to a coming conflict. If China feared being cut off from foreign supplies it would probably burn more coal, of which it has plenty. It might also go on a buying spree. Such was the case in the run-up to Russia's invasion of Ukraine last year, when Russia's main gas company curbed supply. In the six months before the attack, Chinese entities bought more than 91% of all the liquefied natural gas purchased worldwide under term deals (typically spanning four

→ Also in this section

42 The fall of Qin Gang

43 Chaguan: Central planning returns

years or longer), according to Mr Collins and his colleague, Steven Miles.

The firms signed contracts that locked in near-term supplies, breaking from China's past practice of focusing on future deliveries. Nine of the 20 state-owned outfits involved in the purchasing had never bought gas before. China may simply have decided to stock up before prices rose even higher (as they did). But Messrs Collins and Miles say the deals raise questions about China's complicity with Russia.

Whereas fuel would be needed to power China's war machine, food must be procured to sustain its people. China imports more agricultural produce than any other country. Obsessed with food security (see Chaguan), it already has enormous stockpiles. In 2021 an official said its wheat reserves could meet demand for 18 months. Over the past decade China has greatly increased its purchases of wheat, corn, rice and soybeans (see chart).

How might China change its behaviour if war were on the horizon? The answer is that it would probably buy even more food. One product to watch is soybeans. China imports 84% of its stock. Much of it is used to feed pigs. (Pork accounts for 60% of all meat consumption in China.) The country currently has enough beans to feed its pigs for under two months. A rapid increase in buying could indicate that it was preparing for conflict, says Gustavo Ferreira, an agricultural officer in the US Army, particularly if these purchases were not matched by a rise in livestock production or if they went against market trends.

Some of this activity may be hard to see. The size of China's grain hoard, for example, is hotly debated. When it comes to metals, the challenge may be even greater. Items such as beryllium and niobium are used to make military gear. Platinum and palladium go into engines. How much China has of these metals, most of which are imported, is difficult to say because its consumption patterns are unclear.

As with fuel and food, unusual metal-buying patterns could be a signal. Changes

in China's exports would be a more visible indicator. It might become more reluctant to part with the rare-earth metals crucial to many technologies. China has a near-monopoly on many of these. In July it announced export controls on gallium and germanium, two metals used in chips. This was part of its tech battle with America, though, not a sign of a looming hot war.

China buys many of its commodities from countries that might not mind if it invades Taiwan, nor adhere to a Western-led embargo. But China's leader, Xi Jinping, has told his security chiefs to prepare for the "worst-case scenario". They would probably want to make China as self-sufficient as possible in the case of war.

Similar thinking infuses China's approach to the financial system. It has introduced a cross-border payment mechanism that could, if necessary, bypass Western financial institutions—though at present most transactions still go through foreign platforms. China and its state-owned firms increasingly push trade partners to sign contracts in yuan, to reduce the country's dependence on the dollar. If it were planning for war, China might also move its foreign-exchange reserves out of dollars and euros and into assets that are harder to sequester, such as gold.

Financial markets tend to react late to geopolitical dangers. But if investors got wind of China's plans, there would be capital flight. The government would probably tighten its capital controls. State entities would also cash in assets held by overseas custodians and repatriate the proceeds. They might renege on some overseas investments or delay payments. In the days leading up to an attack the government might freeze all foreign funds in China.

Some of these actions may come too late to be useful signals of war. Others may prove illusory as indicators. When talking about national security, Mr Xi says "stormy seas" are ahead. The state's efforts to batten down the hatches could be mistaken for something worse. To a certain extent, that is the point. Part of China's strategy is to convince the world that it is ready and willing, if not about to invade Taiwan. But its behaviour risks confirming the most pessimistic assumptions of Western analysts.

So it went during the last cold war. In 1983 NATO held a military drill that was to culminate in a simulated nuclear attack. Relying on the kind of indicators the KGB had identified, some Soviet officials feared the exercise might be cover for the real thing. Today, as China practises invading Taiwan, Western analysts must be careful not to suffer from their own confirmation bias. But if economic and financial indicators—along with satellite imagery, signals intelligence and human sources—can help America and its allies see a war coming, perhaps they can prevent it. ■

The missing foreign minister

Qin Gang is gone

BEIJING

The fall of a model diplomat

PROXIMITY TO XI JINPING—backed by a blend of worldly charm and anti-Western scorn—rocketed Qin Gang to the top of China's foreign ministry. But on July 25th Mr Qin fell, losing his job as foreign minister after vanishing from the public eye for weeks.

The announcement, when it finally came, left everything else about Mr Qin's fate shrouded in mystery. No mention was made of the unspecified health issues that had once been offered as an explanation for his absence. The Communist Party's preference for opacity, even at the cost of diplomatic embarrassment, is—for now—the one fixed point in this murky saga.

Mr Qin, 57, rose through the ranks at exceptional speed after a stint as a close aide to Mr Xi, China's leader. His disappearance was a crisis for the machinery of state because Mr Qin is so widely seen as a protégé of the party boss.

As foreign minister for the past seven months, and before that as China's ambassador to Washington, Mr Qin fulfilled Mr Xi's instructions to Chinese diplomats to show more swagger and fighting spirit—especially when either wooing Western audiences or explaining why America and its allies are in decline. But his rapid rise provoked envy, which may explain why members of Beijing's elite are gleefully sharing rumours about his disappearance, many involving his private life.

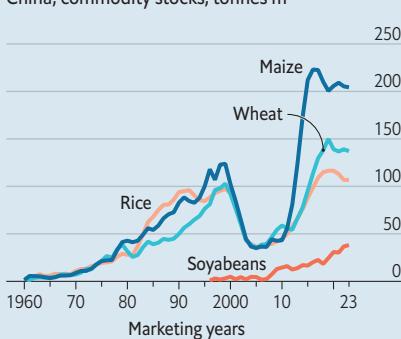
China's rubber-stamp legislature issued a terse bulletin that Mr Qin had been replaced by his own predecessor, Wang Yi, a member of the ruling Politburo. Mr Wang appears to have retained his other, more senior post, as the party's top diplomat. At the age of 69, he may not be expected to hold that grueling double mandate for very long.

Many questions remain unanswered, including about Mr Qin's other positions as a state councillor and central-committee member. Soon after China's legislature voted to replace Mr Qin, all traces of him began vanishing from the foreign-ministry website.

The mysteries of the past month offer, in a way, an unusually clear window on the nature of power in Mr Xi's China. However the episode ends, it is a reminder that Beijing, for all its gleaming skyscrapers and electric cars, is the capital of a Marxist-Leninist regime that plays by its own brutal rules.

Granular details

China, commodity stocks, tonnes m



Source: United States Department of Agriculture

Chaguan | China turns to central planning

When one plan misfires, expect another to be laid on top



THE PROBLEM with central planners is not that they make mistakes. After all, everyone is fallible: even (oh, the shame of it) newspaper columnists. The trouble with technocrats is how they respond when plans go awry. All too often, when goals are missed or policies backfire, their solution is another plan laid on top.

This dynamic is increasingly visible in the China ruled by Xi Jinping. And it is especially true in the countryside. Policies for rural areas have become a tangled thicket of clashing priorities, core principles and “red lines” that must be defended. The transformative reforms of the 1980s, when collective farms were broken up and peasants were allowed to plant whatever the market was eager to buy, seem ever further away.

This renewed insistence on planning comes from the top. Time and again, and most recently at a meeting on July 20th of the powerful Central Finance and Economics Commission, Mr Xi has called food security a *guozhidazhe*. That is the high-flown phrase which he uses to denote “the main affairs of state” or “national priorities”. To that end, the supreme leader and his underlings emphasise the need to grow grain, rather than frivolities like fruit or flowers, on China’s limited stocks of prime arable land.

Chinese leaders have long worried about feeding nearly a fifth of the people on Earth with 9% of the world’s arable land and 6% of its fresh water. Mr Xi wants China to become less reliant on imports, notably in an age of rising international tensions. As he puts it, “Chinese people should hold their rice bowls firmly in their own hands, with grains mainly produced by themselves.” In part thanks to top-down price controls it is hard for farmers to make money growing staples. Thus food security challenges another of Mr Xi’s signature policies: identifying high-value crops and agricultural industries to raise farmers’ incomes in the name of poverty alleviation and “rural revitalisation”.

In a growing list of places, officials are responding with more zeal than common sense. Village cadres have sent bulldozers to tear out fruit trees. In the south-western city of Chengdu, Chaguan saw corn and sunflower fields freshly planted in a new suburban park, the Chengdu Eco Belt Park, and along highway verges. In the southern province of Yunnan, terraced rice fields have been cut into slopes. When videos of such incidents surface on social me-

dia, some angry netizens recall disastrous Mao-era campaigns to grow food on steep hillsides. Others ask what happened to another national priority since the 1990s, namely the creation of forests to combat soil erosion and bind deserts, including by planting trees on underused farmland beneath the slogan “Grain to Green”.

This resentment is heard in Beijing. In June the Ministry of National Resources issued a directive banning local governments from trying to grow crops on steep slopes and ecologically fragile land, or from using “one-size-fits-all” measures like bulldozing orchards, nurseries and fish ponds to generate new farmland. When recovering arable land that was illegally taken for construction or for other money-earning schemes, officials must proceed “step by step” and protect farmers’ interests at all times.

Yet on the ground a bossier approach may be seen, involving new plans on top of failed schemes. In and around Chengdu, the capital of Sichuan province, officials are focusing on Mr Xi’s current priority. That means growing grain. They are making their obedience visible. Mr Xi visited the fertile Chengdu plain last year, recalling how it was known in history as “heaven’s granary”. Those words, along with Xi-isms about food security and cropland, now appear on village walls and roadside propaganda posters.

The road to the fourth section of Pingshan village, south of Chengdu, dips and climbs like a fairground ride. Every inch of the reddish soil is used. Tiny plots are planted with pungent Sichuan peppercorns, plum trees, grapevines and tea bushes. Still, incomes are low. In 2011 officials boasted of following a priority of the day by “returning farmland to forests”. In Pingshan, this involved planting mulberry trees and promoting the rearing of silkworms. State media predicted that this would open up “new ways to get rich”. Yet today the mulberry trees are gone. Some excited netizens claim that China is in the grip of a national deforestation campaign. The reality is untidier. Mulberry trees did not make money so villagers stopped growing them, reports a young, bare-chested man in sunglasses, watched by a toddler on a tricycle. But Pingshan is not caught up in mass grain-growing campaigns either, being too dry and far from a main road, the young man adds. Luckily, he has another job driving an excavator. Last year that sideline took him to a different village to uproot citrus trees to make arable fields. Asked how farmers reacted, he smiled. “It’s the government’s will, how could they not be satisfied?” he replied.

Because the party knows best **微信公众号：全球首发刊王**
 In nearby Yueying village, locals talk of a neighbour who was reluctant to give up his trees. Because the man was a party member, however, he was told “to lead the way” and submit. In Gaohe village, a farmer surnamed Luo describes years of policy about-turns. “When I was young, we grew rice here,” Mr Luo explains. Then locals were encouraged to rent their small plots to a company growing grapes and other cash crops. “That didn’t work out, so they returned the land to us and we started growing citrus fruit,” he says. His family’s six mu (0.4 hectares) of land supported a few hundred trees in all. They made up to 30,000 yuan (\$4,200) per mu in good years. The trees were uprooted last year and the land handed to a company that grows rice in a combined plot of about 20 hectares. Mr Luo’s family receives 1,200 yuan per mu in annual compensation. He is fatalistic about clever schemes that come and go. Farming supplements his main income from working in a nearby town. A few trees still surround his family home. “The country asks us to grow rice, so we grow rice,” he says. In Mr Xi’s China, changeable policies are like the weather: a constant to be endured. ■



Israel

A dangerous move

JERUSALEM

A blow against Israel's Supreme Court plunges the country into chaos

ISAAC HERZOG, Israel's president, issued a dramatic statement on July 26th on the danger of *milchemet achim*—a war of brothers, a Hebrew term for the worst of civil wars. Mr Herzog was warning of an internal challenge to the Jewish state that was greater than ever. Two days earlier Israel's parliament, the Knesset, had passed the first of a series of laws aimed at drastically limiting the powers of the country's Supreme Court. Crying "shame!", members of the opposition walked out in protest at the final reading of the law, which passed by 64-0 in the 120-strong chamber, thanks to the votes of every member of the right-wing coalition led by Binyamin Netanyahu, the prime minister. The new law all but eliminates the Supreme Court's ability to review government decisions on the ground of "reasonableness".

Thousands of angry protesters blocked the main streets of Jerusalem and Tel Aviv that night. These were the most violent confrontations in 30 weeks of continuous demonstrations. And the protesters show no sign of going home. Once again businesses closed in sympathy and tech firms

threatened to relocate abroad. Most worrying for a country that relies for its security on an army with a large voluntary contingent, thousands of reserve soldiers and officers said they would not turn up for duty if Israel "became a dictatorship".

The prime minister says his reforms should restore the balance of power between the Supreme Court and parliament, and "strengthen Israeli democracy". His opponents, by contrast, see a coalition of far-right and ultra-religious parties determined to undermine democracy, risking the advent of majoritarian rule.

They seemed to win a concession in March when Mr Netanyahu temporarily halted his government's attempts to pass the full raft of legal reforms and promised to seek a consensus. But under pressure from the extreme elements in his coalition, he gave up the search for a compro-

mise. Instead he took one of the four laws the government had originally hoped to pass earlier this year and rushed through a vote in a matter of weeks.

That underlined the weakness of Mr Netanyahu's grip on his radical coalition. Even as the final votes were being held in the Knesset, he and his relatively moderate defence minister, Yoav Gallant, sought to delay the parliamentary procedure in a last-gasp attempt to find a compromise. The hardline justice minister, Yariv Levin, could be seen berating his colleagues, as Mr Netanyahu sat glumly silent. Mr Levin and other far-right members of the coalition had threatened to resign if the amendment were not passed immediately.

The fact that Mr Netanyahu was unable to persuade his allies to delay the vote showed the limits of his power. (Moreover, he had just had an operation to fit a pacemaker.) It is unclear what will prevent the most extreme members of his coalition from aggressively pursuing their agenda, on legal and other issues.

After the vote Mr Levin said it was but a "first step" to fix the judicial system. Ministers have threatened to use the freedom the new law gives them to fire the independent-minded attorney-general. They could replace her with someone friendlier to the government who would be more willing, among other things, to revisit the corruption charges facing Mr Netanyahu (which he strenuously denies).

When the Knesset returns in October after its summer recess, the coalition also ►

→ Also in this section

45 Russia v Ukraine in Africa

46 Niger's president in trouble

► plans to present legislation to let it control the appointment of Supreme Court judges, two of whom, including the court's president, are soon to retire. Mr Netanyahu has again promised to pursue consensus on these matters. But his allies have no such interest; the prime minister has little sway over them.

Israel may be in a constitutional crisis well before the next pieces of legislation come up. The Supreme Court says it will hear arguments from an array of petitioners, including the Israeli Bar Association, civil-rights groups and opposition parties, calling for the new law to be overturned. The Supreme Court's president, Esther Hayut, has described the government's plans as a "fatal blow" to Israeli democracy. But she and her judges will not have an easy decision on their hands.

First, the legal argument. The law abolishing the "reasonableness standard" amended one of Israel's "basic laws", the nearest thing to a constitution. In the past the Supreme Court has rejected laws passed by the Knesset if they were adjudged to contradict the basic laws, but to disqualify even part of a basic law itself is unprecedented. Some legal experts believe the judges could do so in this case, arguing that the new law contravenes the very principle of democracy: the separation of executive and judicial powers. Such a ruling would have wider implications.

If the Supreme Court rules the new law unconstitutional, it would be on a collision course with the government and its Knesset majority. The government might seek to ignore the court's ruling, claiming that the judges are no longer abiding by the law. The civil service and security forces would have to choose between obeying the government or the court.

Mr Netanyahu faces adverse pressure from abroad, too. He has already brushed off a public warning from Israel's closest ally. President Joe Biden repeatedly called on him to postpone the vote and reach a compromise. The White House later called the result "unfortunate". Foreign banks, such as Morgan Stanley, also vented their disquiet, lamenting the "increased uncertainty about the economic outlook in the coming months". Moody's, a credit-rating agency, sounded gloomy too.

In poll after poll a majority of Israelis, including many of those who voted for the coalition parties only last November, have made it clear they want the government to change course. In a survey conducted on the day after the vote, 33% of Israelis said the government's judicial plans should be binned; another 29% said they should be passed only if the opposition agreed. Only 22% wanted to go ahead, come what may. Israelis as a whole agree with the president: the country must not be brought to the brink of civil war. ■

Russia-Africa summit

Grain games

CAPE TOWN

A low turnout from African leaders at a summit in Russia shows the limits of the Kremlin's appeal

VLADIMIR PUTIN has never been so diplomatically isolated. Few heads of state have visited him since his invasion of Ukraine last year. So when African leaders arrived in St Petersburg on July 27th for the second Russia-Africa summit, it was something of a coup—so to speak—for Russia's president. Yet the turnout shows the limits to Russia's sway on the continent. Reports suggest that just 17 African leaders travelled, less than half the 43 who went to the first bash in 2019.

The showing underlines Africa's ambivalence towards Russia. Of Africa's 54 countries, 19 backed Ukraine in most of the five votes on the war at the UN General Assembly in the first year of the conflict, versus just two that did the same with Russia. But overall, African states abstained or did not show up on 52% of occasions.

There is no single reason for the postures of African countries. Several are autocracies run by elites with close links to Russia; a few host Russian mercenaries from the Wagner Group. Some states selectively recall their historical links to the Soviet Union, or are instinctively sceptical of the West's foreign policy. Most feel that, pulled hither and yon by geopolitical shifts, it is better to avoid picking sides—and instead strike a balance.

The African response to Russia's withdrawal from the Black Sea grain initiative should be viewed in this primarily pragmatic context. On July 17th Russia said it would no longer honour the deal it signed a year earlier that unblocked an export channel for Ukrainian grain and helped

The unloved Kremlin

African countries*, attitudes towards economic and political influence, 2019-21, % responding



Source: Afrobarometer

*34 countries surveyed

push cereal prices down by 14%, according to the Food and Agriculture Organisation, a UN agency. NGOs working in the Horn of Africa, in particular, say Russia's move will worsen inflation and hunger. Though no leader publicly criticised Mr Putin, they will raise the deal at the summit.

Russia will hope that it can keep African leaders quiet with the kind of cynical, elite-driven approach to the continent that it favours. Ukrainian officials say that Russia has blocked their efforts to donate grain to Africa, under a programme launched in November. Meanwhile Russia is exporting its wheat to friendly states; Mali, the junta of which is propped up by Wagner, received 50,000 tonnes at knockdown prices last month. The Kremlin has used a



► scheme to donate Russian fertiliser stranded in Europe, through the World Food Programme, to lobby African states to call for an end to sanctions on Russia.

Russia has to exert its influence where it can because it is an economic minnow in Africa, relative to America, China or European powers. In 2018, the most recent year analysed by researchers, Russia gave \$28m in bilateral aid to African countries, less than one-hundredth of Britain's total—and one-thirteenth of what Russia gave Cuba. Russia accounts for a tiny fraction of foreign direct investment in Africa. In 2020 Russia-Africa trade hit \$14bn, 2% of the continent's total and about one-twentieth of EU-Africa trade. At the first Russia-Africa summit officials bragged of signing deals worth \$12.5bn. Few materialised. No wonder leaders from Kenya, Nigeria and other big economies skipped this year's event.

Still, Russia is a compelling partner for authoritarian regimes clinging to power. It has been Africa's largest weapons supplier for more than a decade. Though more than half of these exports were to Algeria and Egypt, it also sells weapons to sub-Saharan African regimes such as Uganda more cheaply and with fewer strings than the West would attach.

The Wagner Group—another part of the Kremlin's security offer to autocrats—is seemingly staying put in Africa after its short-lived mutiny against Mr Putin. "There was—and will be—no reduction in our programmes in Africa," Yevgeny Prigozhin, its leader, said last week. In the Central African Republic Wagner is helping run a referendum on July 30th that will see Faustin-Archange Touadéra, the president, abolish term limits.

Guns and mercenaries are just part of Russia's low-cost, high-impact strategy of targeting African elites. Many of the countries where the ruling class has the closest ties to Russia—such as Algeria, Madagascar, Mozambique, Uganda and Zimbabwe—often abstained at the UN. And the targeting of elites extends to more democratic places. Jacob Zuma, who came close to signing a gargantuan nuclear-power deal with Russia, is one of several figures in South Africa's ruling African National Congress that Russia has tried to woo and protect. The former president is currently in Russia for "health reasons"; as it happens, he faces prison time at home.

All Russia's efforts are backed up by propaganda. Its disinformation campaigns target influential African voices on social media. They are effective in part because the messages fall on fertile anti-Western ground, especially in French-speaking west Africa. In a poll of 23 African countries in 2022 Gallup found that the states with the highest approval ratings of Russia were Mali (84%) and Ivory Coast (71%). The top seven were Francophone.

Niger's president in trouble

Coup and chaos

DAKAR

The West's last steady ally in the Sahel is in deep trouble

THE LAST seemingly solid government aligned with the West in the jihadist-plagued Sahel, a belt of poverty-stricken Francophone countries that spreads across the Sahara desert, seems to have fallen to a military coup. Late in the evening of July 26th a group of soldiers appeared on Niger's national television to declare that they had "decided to put an end to the regime that you know".

President Mohamed Bazoum, who took office about two years ago in the country's first peaceful democratic transfer of power, had reportedly planned to dismiss the presidential guard's head, General Omar Tchiani, who may now be the new man in charge. Yet uncertainty remained. After the announcement Mr Bazoum, who was reportedly held but had not yet publicly resigned, tweeted: "The hard-won achievements will be safeguarded. All Nigeriens who love democracy and freedom will see to it."

Political chaos and violence in Niger, a country of 26m, could sorely harm the wider region, too. Niger is the only true Western ally and the sole democracy in the fight against jihadists linked to al-Qaeda and Islamic State that have slaughtered their way across much of Mali and

Burkina Faso to the west—and into parts of Niger. It is also trying to fend off jihadists from Boko Haram, another terrorist outfit, that spills over from Nigeria.

If it sticks, this coup would be the sixth to succeed in west Africa in under three years. None has helped. In Mali soldiers overthrew civilian rule in 2020. In Burkina Faso soldiers seized power in January 2022, only to be overthrown by rival gun-toting men in September. In both countries they soon pushed out and scapegoated French forces fighting the jihadists. Mali replaced them with mercenaries from Russia's Wagner Group. Yet the result was even more violence. Last year in Burkina Faso, Mali and Niger more than 10,000 people were killed, the bloodiest rate so far. This year could be bloodier still.

Yet much less of the carnage is in Niger, where fewer people were killed in the first six months of this year than in any similar period since 2018. The West has poured in billions of dollars in aid to the country. Some 1,500 French soldiers have been fighting alongside the army; 1,000-plus Americans are also deployed there. And they have drone bases, too.

Mr Bazoum has not just relied on Western muscle. Fighting between ethnic groups plays into the jihadists' hands, so he has backed peace deals between local communities. His government has even reached out directly to jihadists to try to persuade them to lay down their arms.

Now this progress is at risk. Even if Mr Bazoum regains control, his army will be divided. Speaking of the coups in Mali and Burkina Faso, he told *The Economist* in May: "The army, which is the institution we need the most to deal with insecurity, is weakened by these coups, because they turn things upside down." Alas, his words apply to Niger, too.



But there is a limit to Russia's appeal. In 2021 Afrobarometer, a research group, released results of polls across 34 African countries. On average just 35% of respondents said Russia was a good influence. That share was behind those for former colonial powers, regional hegemons, America and China (see chart on previous page).

Volodymyr Zelensky, Ukraine's president, has belatedly joined the battle for these hearts and minds. Last week in Kyiv he hosted a group of African journalists. He compared the war in Ukraine to the an-

ti-colonial wars in Africa: "Many of your ancestors went through this." Mr Zelensky added that Russia's approach to grain and Africa was like its earlier use of oil and gas in Europe. In both cases, he said, Russia tried to eliminate competitors and use resources to create political dependence.

To judge by the low turnout for this week's summit, African leaders are recalibrating their views of Russia. Mr Putin's officials blame Western pressure. In truth, it reflects exactly the sort of African autonomy they cynically claim to champion. ■

**Ukraine's counter-offensive**

Hunting for a breakthrough

The Ukrainian army commits new forces in a big southward push

AFTER EIGHT weeks of slow progress, Ukraine's counter-offensive entered a new phase on July 26th when Ukraine's army committed a big part of its reserve forces in the south. There was heavy fighting reported around the village of Robotyne. Ukrainian officials say their units are attacking in the direction of Melitopol, a city that dominates the "land bridge" linking Russia to Crimea, and Berdyansk, a port on the Sea of Azov (see map on next page).

Ukraine's hope is that Russia's army, roiled by dysfunctional command and a drumbeat of Ukrainian missile attacks against its logistics, will break under the new pressure. But for that to happen, Ukraine must overcome the problems that hobbled the first phase of its offensive earlier this summer.

The counter-offensive began on June 4th when Ukraine launched attacks near Velyka Novosilka and around Bakhmut in Donetsk province, as well as a prior thrust in Zaporizhia province in the south where it is now intensifying its assault. Its new Western-equipped brigades got bogged down, sometimes in minefields, and were

targeted by Russian artillery, anti-tank missiles, attack helicopters and loitering munitions. Ukraine responded by changing tactics. It held back armour and sent in smaller units of dismounted infantry, often no more than 20 soldiers, to proceed slowly and haltingly.

"The various wargames that were done ahead of time have predicted certain levels of advance," conceded General Mark Milley, America's top officer, on July 18th. "And that has slowed down." In part, the slow progress reflects the scale of the task. Russian defences are 30km deep in places, bristling with tank traps and spattered with mines. Most NATO armies would struggle to punch through comparable lines without complete dominance in the air, which Ukraine does not enjoy.

Another problem is that Russia has mounted a stronger defence than expected, conducting rapid, mobile counter-at-

tacks in response to Ukrainian advances, rather than remaining confined to trenches. Rob Lee, an expert on Russia's armed forces who recently visited the front lines, notes that they have not just executed their doctrine competently, but also innovated, for instance by stacking multiple anti-tank mines on top of one another to destroy mine-clearing vehicles.

Ukraine's inability to breach Russian lines is partly to do with equipment—it needs demining kit, air-defence systems and anti-tank missiles capable of blunting Russian counter-attacks from a greater distance. It is also to do with tactics. Mr Lee describes an occasion when a brigade's advance was delayed by a couple of hours, until dawn. That not only negated Ukraine's advantage in night-vision systems, but also meant that the accompanying artillery barrage lifted hours earlier than it should have done. Russian infantry and anti-tank squads, who should have been suppressed by well-timed shellfire, were free to attack.

This lack of proficiency in co-ordinating complex attacks involving multiple units and different sorts of weapons is hardly surprising. Ukraine's new brigades were put together in a hurry with unfamiliar equipment. Newly mobilised men were given a month of training in Germany. They have struggled with tasks like reconnaissance, says Mr Lee, with new units becoming disoriented at night time. Co-ordination has also been a problem, with confusion around where friendly units have ➤

→ **Also in this section**

48 Ukraine's grain exports

► placed mines.

Ukraine's allies do not seem troubled by the slow progress to date. "It is far from a failure, in my view," said General Milley, when asked whether the offensive had stalled. "I think that it's way too early to make that kind of call." Optimists point to three factors in Ukraine's favour. One is that it need not fear a serious Russian counter-attack, despite minor Russian gains in northern Luhansk province in recent days. "There appears now to be little prospect of the Russian forces regaining momentum," said Richard Moore, the head of MI6, a British spy agency, on July 19th. That may be one reason why Russia has torn up a grain deal and resumed strikes on Ukraine's ports and grain stores (see box).

Second, Russia's decision to defend forward, rather than falling back to prepared defences, has slowed down Ukraine's progress but also left Russia with little mobile reserve in the rear, a point underscored by Yevgeny Prigozhin's unhindered march to Moscow in June.

The third factor is that Ukraine has been chipping away at Russia's combat power. On July 11th a Ukrainian strike reportedly killed Oleg Tsokov, a Russian general, in Berdyansk, suggesting that Ukraine was successfully targeting command posts. In recent days Ukraine has also used British-supplied Storm Shadow missiles to



strike air bases and ammunition depots, including in Crimea. Meanwhile, America's decision to provide cluster munitions, allows Ukraine to keep up the offensive for longer than originally planned—certainly beyond the summer if necessary.

These factors explain why General Valery Zaluzhny, Ukraine's top general, decided to throw in fresh legs on July 26th. He has been forced to adapt his original plan. Brigades from Ukraine's 9th Corps had been expected to fight their way to Russia's main line of defence. Then the 10th Corps, in essence a second echelon, including three

Western-equipped brigades, were to be deployed to fight their way through the strongest defences. Finally, light, fast-moving air-assault units were supposed to exploit any breakthrough, pouring through the hard-won breach.

In the event, 9th Corps struggled. Advances that were supposed to be completed in days ended up taking weeks. Ukraine was unable to deploy whole brigades, instead breaking them down into smaller units. Some experts worry that 10th Corps has now been thrown in prematurely. The main Russian line is still kilometres away and 10th Corps's units might be worn down before they get there, leaving them too exhausted to punch through.

Western officials play down these concerns. "I think they timed it well," says one. Ukraine is in a "very strong operational position", says another, pointing to the turmoil in Russia's senior ranks, including the decision in early July to sack General Ivan Popov, who commanded a big portion of Russian forces in southern Ukraine. Russian military bloggers have described heavy losses of Russian artillery pieces in recent weeks.

However, a fluid war of manoeuvre is likely to remain a stretch for a force cobbled together in a few months. The Russian verb *peremalyvat* (to grind through) is invoked on both sides. But Ukraine's junior commanders, having seen their units gutted over the past 18 months, refuse to send their new citizen army into a meat-grinder in the way that Russia did in Bakhmut. As Ukraine has become more European, Ben Wallace, Britain's defence minister, recently suggested, it has acquired "a Western European caution".

Some American and European military officials argue that Ukrainian commanders have in fact been too slow to strike with their new brigades, a mistake that they think Ukraine committed last year in Kherson, when tens of thousands of Russian troops withdrew east over the Dnieper river with their equipment. Ukrainian commanders chafe at the idea that they should gamble their army in circumstances that NATO generals have never faced.

The 10th Corps's assault is a break with that hesitation. And the upside of the aversion to casualties thus far is that many Ukrainian units are in better shape than planners had assumed. Brigades that assaulted Russian positions were expected to be left with only a third of their original strength. Thanks in part to well-armoured Western vehicles, they have taken a lighter knock. Even so, the commitment of 10th Corps is a fateful moment for General Zaluzhny, a cautious commander with the weight of Ukrainian and allied expectations on his shoulders. "This is the last big decision for Zaluzhny to make this summer," says the Western official. "The die is cast." ■

Ukraine's grain exports Grain wreck

KHARKIV Russia attacks Ukraine's agricultural exports

“TODAY'S DECISION”, António Guterres, the UN's secretary-general, lamented last week, “will strike a blow to people in need everywhere.” The injury he was decrying was Russia's repudiation of a year-old deal whereby it had allowed exports of food crops from Ukrainian ports on the Black Sea despite a naval blockade. The resulting leap in grain prices, Mr Guterres warned, would leave many hungry. This week Russia landed blows of a more literal sort on Ukraine's grain exports, bombing the ports around Odessa from which they are shipped.

A volley of missiles against wharves near the city centre on the night of July 22nd was so indiscriminate it hit one of the city's cathedrals. On July 19th 60,000 tonnes of grain were destroyed in another bombardment. And on July 24th Russia targeted Reni, a port on the Danube river (not covered by the agreement) through which Ukraine had been exporting grain via Romania.

Before Russia's invasion Ukraine exported some 45m tonnes of grain a

year, around 90% of it via Odessa and other ports on the Black Sea. In the year the grain deal was in operation almost 33m tonnes were exported through Odessa's ports. That has now stopped.

Exports by road, rail and river barge have been increasing but Hanna Shelest, an analyst from Odessa, says there is not enough capacity to replace maritime shipments. Anyway, she adds, these alternatives are “several times more expensive in terms of logistics, and slower”. Exports by land have also caused grain prices to slump in neighbouring countries, infuriating farmers in otherwise friendly places such as Poland.

Before the war agriculture accounted for more than 10% of Ukraine's GDP and nearly 15% of employment. Many farms are still operating. The wheat harvest is under way. Sunflowers will follow in early autumn and maize a few weeks later. Russian bombardment has destroyed much of Ukraine's storage capacity, so the need to find a new outlet for Ukraine's exports is pressing.



Business in China

The dragon shows its claws

SHANGHAI

The Communist Party hits back against Western sanctions

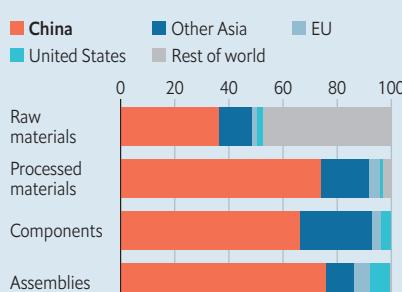
IN 2019, AS CHINA'S trade war with America was heating up, the *People's Daily* predicted that the Chinese monopoly on rare earths, minerals crucial to the production of most modern hardware, would become a tool to counter American pressure. "Don't say we didn't warn you," the Communist Party mouthpiece thundered. For years the bluster was just that. Between 2009 and 2020 the number of Chinese export controls on the books ballooned nine-fold, according to the OECD, a club of mostly rich countries. Yet these restrictions were haphazard, informal and aimed at narrow targets—random warning shots rather than a strategic offensive.

As America ratchets up its sanctions against China, which among other things make it impossible for Western chip companies to sell Chinese customers cutting-edge semiconductors and the machines to make them, new volleys from Beijing are coming thick and fast. Earlier this month, after China announced its latest export

controls, this time on a pair of metals used in chips and other advanced tech, a former commerce-ministry official declared that the measures were "just the beginning" of Chinese retaliation. On July 20th Xie Feng, China's new ambassador to America, said

Hard to unplug

Worldwide lithium-ion-battery production
By supply-chain stage and location, March 2023, %



→ Also in this section

- 50 Silicon Valley slims down
- 51 Bartleby: Power relations
- 52 America's immobile telecoms
- 52 Motoring's new soundscape
- 53 Schumpeter: Grocery wars

that his country "cannot remain silent" in the escalating war over technology. A response, he hinted, was coming.

This time it looks much more deliberate. To counter America's effort to contain China's technological ambitions, Xi Jinping, China's paramount leader, has called on regulators to fight back against Western coercion in what he has called an "international legal struggle". The result is a flurry of lawmaking that is creating a framework for a more robust Chinese reaction to America's commercial warfare.

The list of recent laws is long. An "unreliable entities" list, created in 2020, punishes any company undermining China's interests. An export-control law from the same year created a legal basis for an export-licensing regime. In 2021 an anti-sanctions law enabled retaliation against organisations and individuals who carried out the sanctions of other countries. A sweeping foreign-relations law enacted this year, and prompted by Western sanctions against Russia over its invasion of Ukraine, permits countermeasures against a wide range of economic and national-security threats facing the country. It came into effect on July 1st. The same day an anti-espionage statute came into force, extending the reach of Chinese security agencies. All the while, China has tightened various data and cyber-security rules.

The new rules are already being de-►

ployed, as opposed to merely brandished. In February Lockheed Martin and a unit of Raytheon, two American armymakers with non-defence businesses in China, were placed on the unreliable-entities list after shipping weapons to Taiwan (which China regards as part of its territory). The companies are blocked from making new investments in China and from trade activity, among other restrictions. In April Micron, an American chipmaker, was hit with an investigation by China's cyberspace regulator, based on a new cyber-security law. After Micron failed a security review, Chinese authorities banned its semiconductors from critical infrastructure.

The laws' vague wording makes it hard for Western companies to assess any potential impact on their business in China. The "mother of all sanctions laws", as Henry Gao of Singapore Management University describes the foreign-relations act, hazily vows to hold accountable anyone acting in a manner that is deemed "detrimental to China's national interests...in the course of engaging in international exchanges". Several foreign law firms in China have been asked by their Western clients to evaluate the risks of being investigated. One lawyer looking into potential Chinese cyber-probes notes that American tech companies producing commodified hardware components, such as Micron's memory chips, should be on guard for sudden investigations.

China's new laws allowing the government to restrict a broad range of minerals and components, meanwhile, are injecting similar uncertainty into the businesses of their foreign buyers. One affected group, notes David Oxley of Capital Economics, a research firm, is Western manufacturers of green-energy technologies. Battery-makers, in particular, are highly dependent on China across the supply chain (see chart on previous page). Last year the commerce ministry proposed a ban on exports of ingot-casting technology used in making solar-panel wafers. If imposed, such a prohibition could hold back the development of indigenous solar-power technology in the West, which would hurt Western manufacturers, simultaneously increasing foreign demand for finished Chinese solar panels.

Post-silicon volley

The restrictions on the two chip metals, gallium and germanium, could cause a strategic headache for America. The rules, which come into force on August 1st, require exporters to apply for licences to sell the metals to foreign customers. China produces 98% of the world's raw gallium, a key ingredient in advanced military technology. This includes America's next-generation missile-defence and radar systems. A shock to the supply of gallium could create long-term problems for the Ameri-

can defence industry, reckons CSIS, a think-tank in Washington. Moreover, a gallium-based compound, gallium nitride, may one day underpin a new generation of high-performance semiconductors. Keeping the material out of foreign hands would stymie Western efforts to develop the technology, while furthering Mr Xi's goal for China to control it.

China needs to tread carefully. The country reimports many of the finished products that are manufactured abroad using rare earths, points out Peter Arkell of the Global Mining Association of China, a lobby group, so prohibitions could come back to bite Chinese companies. Outright export bans would also prompt the West to build its own relevant production capacity and seek substitutes, observes Ewa Manthey of ING, a Dutch bank. This would in the longer term weaken China's hand. And labelling big Western firms with large Chi-

nese operations as unreliable entities could jeopardise thousands of Chinese jobs. That may explain why rather than blacklisting all of Raytheon, whose aviation subsidiary, Pratt & Whitney, employs 2,000 people in China, the commerce ministry limited its ban to the American company's defence unit.

So far the relatively pragmatic ministries of commerce and foreign affairs have led the implementation of the various laws. One concern among Western businesses is that more hardline agencies supplant them. If the tech war escalates further, China's National Security Commission, chaired by Mr Xi himself, may take the lead, fears Mr Gao. If that happens, concerns about potential blowback for Chinese commerce are likely to carry less weight (see China section). The consequences are scary to contemplate—and not just for Chinese and American CEOs. ■

Startups

Lean innovation

Next-generation Googles emulate big tech and run a tighter ship

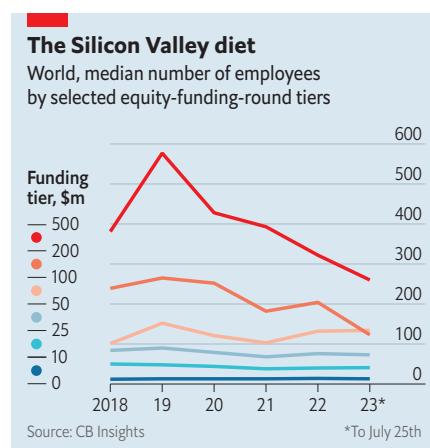
MARK ZUCKERBERG dubbed 2023 Meta's "year of efficiency", corporate-speak for admitting that his social-media empire was bloated. Since November Meta has cut 21,000 jobs, or about a quarter of its workforce. Bosses of its fellow tech titans have also embraced the efficiency mantra. Alphabet, Amazon and Microsoft have collectively shed more than 50,000 jobs since October. Despite an uptick in ad sales, talk of "re-engineering the cost base" and the like still featured in big tech's quarterly-earnings calls this week. The bloodletting (in plain English) is not limited to the giants. According to layoffs.fyi, a sackings-tracker, nearly 900 tech firms around the

world have announced total job cuts of more than 220,000 in 2023.

The slump has hit younger firms hardest. Rising interest rates make their promise of rich profits far in the future look less juicy today. As a consequence, venture capitalists are stinting. Globally, venture-capital investment in the first half of this year was \$144bn, down from \$293bn in the same period in 2022. Those that find investors are seeing their valuations squeezed. According to Carta, an equity platform for startups, in the first quarter of 2023 almost a fifth of all venture deals were "down rounds", where firms raise money at a lower valuation than before. That of Stripe, a fintech star, fell from \$95bn to \$50bn after its latest funding round in March.

This is forcing aspiring Alphabets and Metas to follow their role models and ditch the habits acquired in the era of easy money. Efficiency is the talk of Silicon Valley. Firms accustomed to spending with abandon to win market share find themselves in the unfamiliar position of having to trim fat. And there is plenty of fat to trim.

A good place to start is payroll. Battle-hardened founders gripe that salaries are young firms' biggest expense. In July startup job postings on Hacker News, a site for coders, were down by 40% compared with a year ago. The average startup is already looking leaner. Numbers from CB Insights, a data provider, show that the median



Bartleby Mighty and high

Power does odd things to people, but not all of them are bad

POWER IS A fact of corporate life. It also affects behaviour. Research suggests power makes people less likely to take the advice of others, even if those others are experts in their fields. It makes them more likely to gratify their physical needs. In a test conducted by Ana Guineo of University College London, powerful people were likelier than less powerful folk to choose tempting food, like chocolate, and ignore worthier snacks like radishes. In conversations, the powerful are bewitched by themselves: they rate their own stories as more inspiring than interlocutors'.

They struggle to see things from the perspective of others. In one famous experiment, some people were asked to recall a time they held power over someone else and others a time when another person was in a more powerful position than them; both groups were then asked to draw a capital "E" on their own foreheads. Subjects primed to think of themselves as powerful were three times more likely to draw the "E" as though they were looking at it themselves, making it appear backwards to anyone else.

Power even makes people think they are taller. In another experiment, those coaxed to think of themselves as powerful were more likely to overestimate their own height relative to a pole, and to pick a loftier avatar to represent them in a game, than less potent counterparts.

Cause and effect are hard to unravel here: the dominant types who snaffle the chocolate and leave the radishes may also be more likely to climb the ladder. But possessing power seems itself to put a thumb on the scales, towards more entitled and self-serving behaviour.

Power also affects those lower down the pecking order. In a study published in 2016, Christopher Oveis of the Univer-

sity of California, San Diego, and his co-authors looked at how status affects laughter. The researchers recorded members of a fraternity house in an American university, some new joiners and some old hands, teasing each other. Higher-status participants laughed more loudly and with less inhibition than lower-status ones—primates, not mates.

Power is out of sync with the times. High-performing teams depend on collaboration and candour, not cringing and compliance. Humility is increasingly prized as an attribute of senior executives. In hiring processes some interviewers will look for use of the word "I" rather than "we" as a small marker of how egocentric people really are.

Entire industries are feted for the way they try to counteract the effects of power. The aviation industry is celebrated for a training technique called "crew resource management" that is designed to encourage a less hierarchical set of interactions in the cockpit. Similar kinds of thinking are visible in other workplaces that have especially clear chains of command, from



the army to hospitals.

Still, power can also get a bad press. Hierarchies emerge organically, and with good reason: precious little gets done when everyone is in charge. Research published this year by Ozgecan Kocak of Emory University and her colleagues found that flatter organisations are likelier to spend too much time exploring options than ones where someone is clearly in charge. It doesn't particularly matter if the boss knows what they are talking about; the mere fact that authority is being wielded means a team converges more quickly on a decision.

Power is an instrument for achieving noble ends as well as selfish ones: it is no use having brilliant ideas without the means to put them into practice. One of the most popular classes at Stanford Graduate School of Business is a refreshingly functional one called "Paths to Power". It is taught by Jeffrey Pfeffer, a charming man who preaches the value of rule-breaking, displays of anger, "strategic misrepresentation" (ie, lying) and many other countercultural qualities in order to get to the top.

You don't have to believe that to appreciate the importance of power. Companies like the idea of humility and teamwork but they are also feudal structures that depend on ambition, impatience and gallons of unwarranted self-confidence. The best managers are well aware of how their own power sends ripples across the organisation. They take care not to signal their opinions too early in meetings; they admit when they don't know the answer to something. But they also know when to stop consulting and start commanding. Up to a certain point, saying "I don't know" sends a signal of low-ego inclusivity; beyond it, it is just a signal of not knowing.

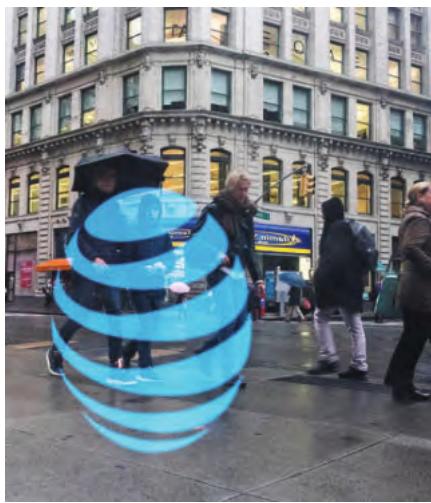
► number of employees at young firms is declining. In 2018 the typical firm that raised a round of \$10m-25m had some 50 employees. In 2023 a similar one employs 41. It is the same story for larger startups, all the way to late-stage ones raising up to \$500m per round (see chart on previous page).

In the go-go years firms hired lots of people who did not have that much to do. Not any more. Most startups, points out Tom Tunguz, a venture capitalist, can run with smaller teams, with a negligible impact on revenues. Tech firms are, naturally, embracing artificial intelligence (AI). An AI

"co-pilot" on GitHub, a Microsoft-owned platform for open-source programs, improves coders' productivity by 30%. And it is not just the geeks who benefit. Other employees use AI-based tools, from chatbots like ChatGPT that churn out emails for marketers to clever software that improves sales efficiency. One founder of an early-stage startup with fewer than ten employees estimates that AI has already boosted his company's productivity by 30-40%.

The austere spirit is visible even among one of the few categories of startup that is unaffected by investors' newfound stingi-

ness: those which develop all the sought-after AI tools. Anthropic, a firm founded by defectors from OpenAI, which created ChatGPT, has secured \$1.2bn with 160 employees. Adept, a company started by former employees of DeepMind, an AI lab owned by Alphabet, has raised \$415m with 37 employees. Compare that with darlings of the previous startup boom. Klarna, a Swedish payments company that experienced wild growth a few years ago, had 2,700 employees by the time it notched up \$1.2bn. Databricks, a database-maker, had a staff of 1,700 at a similar stage. ■



American telecoms

Immobile

Can AT&T and Verizon escape managed decline?

IN THE EARLY 1980S AT&T Corporation, then America's telecoms monopoly, was the darling of Wall Street. As big tech of the day, it was the mightiest company in the S&P 500, accounting for 5.5% of the blue-chip index's total market value. Today its largest descendants, AT&T and Verizon, can only dream of their parent's former glory. The two companies make up less than 0.7% of the index—and falling. Their combined market capitalisation of \$250bn is roughly half what it was at the start of 2020; the S&P 500 is up by more than two-fifths since then (see chart).

Factors beyond the undynamic duo's control, such as rising interest rates or the recent discovery of a network of old lead-sheathed telephone cables, which injected uncertainty over their potential liability for the toxic assets, are partly to blame. Yet much of AT&T's and Verizon's malaise is of their own making. The two telecoms incumbents are finding just how difficult it is to be a mature firm in a saturated market, especially if you also have a mountain of debt to manage.

Their core business of selling mobile and broadband subscriptions is stagnating. On July 25th Verizon said that these revenues grew by less than 1% in the second quarter, year on year. The next day AT&T announced that its equivalent figure rose by just 2.4%. What has long been a cosy industry is turning more competitive. A merger in 2020 between T-Mobile and Sprint created a 5G powerhouse that is offering equally fast mobile connections at lower prices. And on July 26th DISH Net-

work, a satellite-tv firm, unveiled a partnership with one of today's tech titans, Amazon, to provide mobile services for \$25 a month to members of Amazon's Prime loyalty scheme.

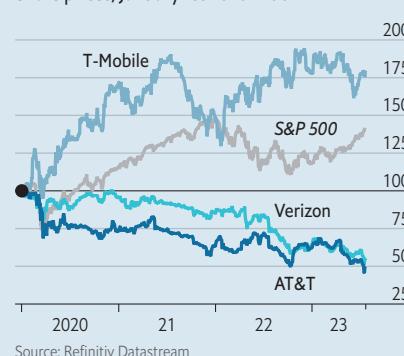
Previous big bets have backfired. AT&T's disastrous \$200bn foray into media, including the purchase of Time Warner and DirecTV, has been unwound. But its effects on morale and on the balance-sheet, weighed down by net debt of more than \$130bn, continue to be felt. Verizon has been less spendthrift, though it still splurged \$53bn in 2021 on 5G spectrum—an investment which was deemed necessary at the time to compete with T-Mobile but which has yet to produce a return, as early hype over 5G has dissipated. Its effort to build a wholesale business, by allowing cable providers such as Comcast and Charter to piggyback on its networks, created new competitors, which are offering bundles of internet and TV at a steep discount.

That leaves the two incumbents with few options. One is to protect margins. Both Verizon and AT&T are touting their premium plans. On July 24th Verizon raised the price of its wireless home broadband by \$10, to \$35 a month. Both companies are also cutting costs, including by shutting down retail outlets, which helped each trim operating expenses by 2.5% in the first half of 2023, year on year.

A more radical move would be to follow some European peers, such as TIM in Italy, and spin off their fixed networks. This would raise capital, lower fixed costs and allow management to focus on faster-growing segments such as wireless broadband. Such a deal would, though, be at odds with the industry's trend towards convergence, whereby cable companies are becoming more like telecom providers, and vice versa, in a battle for consumers. Offering both home and mobile connections, especially in a bundle, makes consumers stickier, reduces churn and increases long-term profitability. That at least is the thinking. To investors, it seems increasingly wishful. ■

Baby Bells' toll

Share prices, January 1st 2020=100



The driving soundscape

A new playlist

Why your EV is making funny noises

MOTORING'S SOUNDTRACK used to be generated by the petrol engine and car radio. Near-silent battery power and snazzy infotainment systems have provided an aural void—and a high-tech way to fill it. Carmakers are giving their electric vehicles' occupants, and anyone within earshot, an alternative set of sounds to enliven the journey.

One trend is to replace the roar of a petrol engine with the roar of a petrol engine. Artificial-noise generation offers a flavour of the past in the cars of the future. Many EVs can blast passengers with fake engine noises just as the engine sound of cars has long been tweaked and tuned in sportier models to sound more raucous in the cabin than on the road. Some new models can now inflict that cacophony on the outside world.

The Abarth 500e, Fiat's souped-up electric version of its popular small car, was launched last year with a speaker in its bumper to mimic the petrol version. Hyundai's hot-hatch EV, the Ioniq 5 N, likely to go on sale this year, goes one better. As well as broadcasting car noises it can also screech like a fighter jet and, for added driver feedback, will jolt slightly between fake gear changes.

The future is as important as the past when it comes to filling the empty stave of electric motoring. EVs usually come with an array of large screens filled with whizzy graphics that demand tuneful accompaniment and an array of new functions that gives an opportunity for a fresh chorus of bleeps, trills and bongs. Meanwhile, regulators in America and Europe insist that EVs emit noises to let pedestrians know they are approaching (the 500e's warning is a strumming guitar).

Some companies, like Mercedes-Benz, leave these acoustic signals to in-house technicians. Others, like Renault, reckon that their sounds will "underline its singular identity", and enlist noted musicians. Videos recently posted on the French firm's website highlight its collaboration with Jean-Michel Jarre, a pioneer of electronic music. It follows a trail blazed by BMW, which in 2019 engaged Hans Zimmer, better known for his Oscar-winning film scores, as its resident composer. Fortunately for motorists pining for the peace and quiet of the EV age, all these options come with an "off" switch.

Schumpeter | Basket case

As Walmart goes from strength to strength, Amazon's grocery strategy is a puzzle



WHEN AMAZON announced the \$13.7bn acquisition of Whole Foods Market in 2017, it came after some oddball attempts to strengthen its grocery business, some conceived by Jeff Bezos himself. One was to develop an “ice-cream truck for adults”, driving into neighbourhoods with lights flashing and horns honking, to sell porterhouse steaks, Shigoku oysters, Nintendo games and other goodies. It was quietly shelved. Another was to create a product so unique that only Amazon could supply it. The answer was the “single-cow burger”, a Wagyu beef patty made from the meat of one animal. You can still find them on its website—though they are now permanently out of stock.

Amazon’s purchase of Whole Foods signalled it would take a more conventional approach to the supermarket business. That is probably why, when the deal was announced, Amazon’s share price soared and those of its rivals, such as Walmart, fell. But since then Amazon has treated grocery more like a science experiment than an exercise in seduction, with weak results at Whole Foods and in other formats. Its best-known addition to the retail experience is the “just walk out” technology in physical stores, equivalent to its one-click shopping online. Yet cashierless supermarkets sound like something more beloved of geeks than grocers. What may cut down on time-wasting queues also minimises what some people love about shopping: the human interaction at the till, the hunter-gatherer instinct as they jostle at the meat counter, the Columbian exchange between fellow foodies at the spice rack.

Amazon is trying to refresh the experience. Last year it recruited Tony Hoggett, a former executive from Tesco, a British supermarket chain, to bring grocery nous to a business hitherto obsessed with overhead cameras, QR codes and data collection. The Brit, who started out as a Tesco “trolley boy” aged 16, has a big job. When Schumpeter visited an Amazon Fresh store in Los Angeles recently, the fresh-meat and -fish counters were so barren they looked like part of a going-out-of-business sale. He bought one of the three rotisserie chickens on display out of sympathy, because he feared they had been there all day.

Under Mr Hoggett, Amazon is trying to make the Fresh stores less soulless. Human cashiers and self-checkouts are back for those who prefer them. Whole Foods’ expertise is being used to re-

think store location. It is part of an effort to make grocery shopping on Amazon as habitual as it is at a Walmart. Andy Jassy, the CEO, says it is aiming to build a “mass grocery format” commensurate with Amazon’s size. Yet if anything Walmart looks more likely to invade Amazon’s territory than the other way around.

Neither firm thinks of itself as competing head-to-head with the other. But they are, because both have big growth ambitions. For Walmart, that means expanding its e-business beyond grocery into general merchandise, as well as attracting higher-income online customers. Both of these are Amazon’s forte. For Amazon, it means a bigger presence in grocery, both online—where food shopping still accounts for only about 10% of America’s \$800bn supermarket business—and offline.

In bricks-and-mortar, Walmart’s lead is huge. It has the largest footprint in America, with about 4,700 outlets, compared with 530 Whole Foods, 44 Amazon Fresh and 22 Amazon Go shops. Grocery accounts for most of its sales, whereas for Amazon they are a sliver. Its “everyday low prices” work: a survey by MoffettNathanson, a research firm, found equivalent products at Amazon Fresh were far pricier. Walmart’s speed of delivery matches Amazon’s.

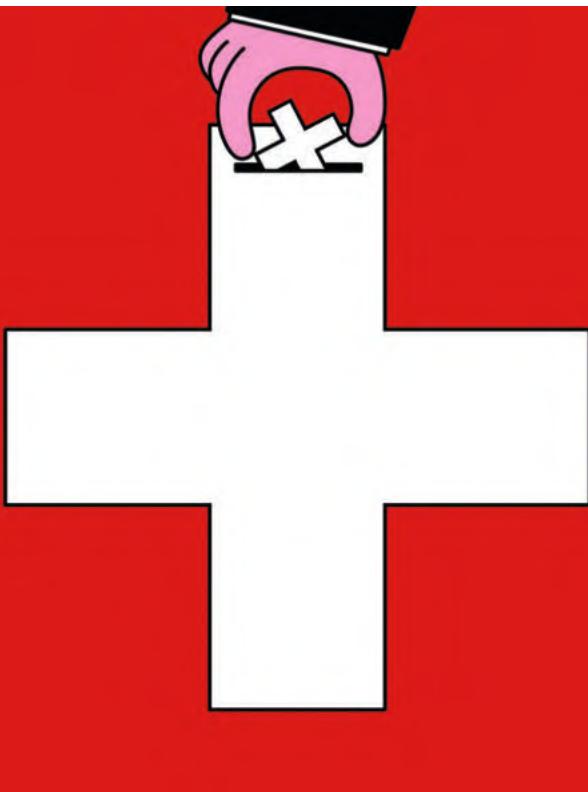
What Amazon lacks in stores, it hopes to make up for in membership of its Prime loyalty programme, which is estimated at 170m in America, compared with about 22m for Walmart+. Eventually, it hopes that online grocery shopping, combined with three different formats—Whole Foods for posh nosh, Fresh for general grub and Go for grab-and-go—will enable customers to buy everything they need via a single app. Amazon has two other advantages: a whopping marketplace platform for third-party sellers, which adds to the range of products available on its website, and an advertising business with a hefty \$38bn of revenues last year, which supplements its supermarket business.

Yet because shoppers like to see, feel and smell their groceries before buying them, the scarcity of stores is a problem. Dean Rosenblum of Bernstein, a broker, calculates that Amazon Fresh is accessible to just over a third of Americans. In contrast, 90% of them live within ten miles (16km) of a Walmart. If Amazon opened 50 new Fresh stores a year, in a decade’s time it would reach only the size of Whole Foods’ current tally. And that would be a “near criminally irresponsible use of Amazon capital”, Mr Rosenblum says. That view is spreading. Terry Smith, a British fund manager, recently dumped his Amazon stock, arguing that its move into grocery retail risked misallocating capital.

Moreover, Walmart appears to be making more headway with online selling and advertising than Amazon is with its real-world stores. Walmart’s online sales were estimated at \$82bn last fiscal year, more than four times Amazon’s physical-store sales. It appears to be borrowing Amazon’s model of attracting third-party sellers to its site in order to increase the assortment of products, raise logistics revenue and boost advertising. Last year Walmart’s ad sales grew by 30%, to \$2.7bn. That is still a fraction of Amazon’s total. But there is no reason why Walmart should not catch up, thinks Simeon Gutman of Morgan Stanley, an investment bank.

One-click M&A

Amazon could leap up the league table by buying a large supermarket chain. Given the antitrust pressure on big tech, though, this is probably off the table. If a build-rather-than-buy approach is its only option, it will have to do a much better job of explaining how it will make this profitable. As it continues to waste time experimenting, Walmart is ably copying its best moves. ■



The future of finance

A big plus

ZURICH

When UBS swallowed Credit Suisse, it was banking's deal of the century. Will the Swiss giant make the most of the opportunity?

“**L**IMITED BUT intensive”. That is how a regulatory filing described, with something approaching wry understatement, the few days of due diligence before UBS announced its deal to rescue Credit Suisse on March 19th. The dramatic acquisition was the first ever tie-up between two “global systemically important banks”, a designation introduced after the financial crisis of 2007-09. Since it was agreed, the pace has barely slowed. In April Sergio Ermotti, a Swiss cost-cutter who ran UBS between 2011 and 2020, returned as the firm’s chief executive. The same month Credit Suisse’s results laid bare the devastating run it had suffered. Combined financial statements followed in May. The fine print of an agreement with Swiss authorities to absorb potential losses emerged in June. Scores of Credit Suisse bankers have rushed for the exit.

UBS finally got the keys to the building on June 12th. The tie-up is the most watched deal in finance: it creates a giant with \$5trn of invested assets and a balance-sheet twice the size of the Swiss

economy. The acquisition’s outcome will say much about the future of global banking. Regulators are eyeing proceedings closely on account of the new institution’s size. Bank bosses, meanwhile, are watching the difficult strategic decisions faced by management for lessons applicable to their own firms. UBS shareholders, who did not vote for the deal, have traded a staid investment for something much riskier.

Despite absorbing its risk-taking rival, its bosses hope that the new UBS will be able to emerge as an enlarged version of the old UBS. European banks were slow to recapitalise after the global financial crisis; their profitability largely reflected ailing domestic economies. Amid this inaus-

picious crowd, UBS stood out. After being rescued in 2008, the bank focused on wealth management. It won enough wallets to be rewarded with one of the highest price-to-book multiples of any European bank, trading at an average of 1.1 times its book value last year. UBS’s focus on managing money will continue, but the shape and scale of its other banking businesses is still the subject of internal debate. Nobody expects a smooth ride in the years ahead.

Since the deal was announced, shares in UBS have risen only a little. Yet the acquisition ought to be a boon, at least eventually. UBS bought Credit Suisse at a bargain: it will report an estimated \$35bn of “negative goodwill”, the difference between what it paid and the higher book value of Credit Suisse’s equity. Turning this scale into profit hinges on the mammoth task of integrating the two institutions’ operations. All the usual post-merger headaches—combining technology systems, aligning accounting standards, laying off staff and resolving culture clashes—are especially difficult at a bank, let alone a failed one. Compared with UBS, Credit Suisse was appallingly inefficient: it had a higher ratio of costs to income in every one of its businesses. The bank’s collapse was preceded by five consecutive quarters of losses and a brutal evaporation of confidence among clients and counterparties.

When UBS unveils its plans and delayed quarterly results at the end of August, investors will scrutinise any outflow of as-►

→ Also in this section

56 A new front in the battle with inflation

57 Watch out for violent unrest

58 Buttonwood: Can the bull market last?

59 Free exchange: Chinese deflation

sets managed by the bank. There is little to suggest a large exodus has taken place. Julius Baer, a Swiss outfit that is likely to benefit from any flight, reported only modest inflows at its quarterly results on July 24th. But investors should also focus on two strategic decisions—ones that will ultimately determine the success of the deal. Both require knife-edge calls and present enormous execution challenges.

Credit Suisse's domestic business is the first big question mark. Bosses at UBS are debating whether to keep none, some or all of Credit Suisse Schweiz, which was established in 2016 as part of a plan, later shelved, to spin off the business. The Swiss bank was Credit Suisse's only profitable division during the first quarter of 2023. Last year Schweiz's equity had a book value of SFr13bn (\$14bn). Selling the outfit at a valuation near this figure might now be impossible given the speed with which clients ran for the doors before March. A shaky balance-sheet would frustrate efforts to pick off the most attractive bits of the business, since the rump might struggle to support itself as a standalone operation.

Swiss knife

With anger over the UBS tie-up still simmering in Switzerland, the fate of Credit Suisse's domestic business could emerge as something of a political lightning rod. Shedding Schweiz might stave off demands for higher capital requirements in the future by calming worries about the parent bank's size. According to data from Switzerland's central bank, last year UBS and Credit Suisse had combined domestic market shares of 26% in loans and deposits. In less hurried circumstances, it would have been possible to imagine the deal falling foul of competition watchdogs.

Yet whereas gains from spinning off the business are uncertain, those from keeping it and making cuts are almost guaranteed. Assuming UBS's shears are sufficiently sharp, and 70% of Credit Suisse Schweiz's costs can be chopped, separating the whole business would mean forgoing



nearly a third of the deal's total annual cost savings, according to an estimate by Barclays, a bank. Lay-offs affecting Credit Suisse's 16,700 employees in Switzerland, such as from shutting retail branches, would draw particular ire from politicians and the public. According to Jefferies, an investment bank, around 60% of UBS and Credit Suisse branches are located within a kilometre of each other.

The second question mark concerns Credit Suisse's investment bank, which accounted for a third of the institution's costs last year, and will bear the brunt of the cuts. Mr Ermotti, UBS's returning boss, is no stranger to felling bankers: the number of people employed in the firm's investment bank declined from about 17,000 in 2011 to 5,000 in 2019, leaving behind a leaner operation to play second fiddle to the bank's elite wealth-management division. Credit Suisse failed to accomplish similar manoeuvres of its own. Last year UBS therefore generated nearly five times as much revenue per dollar of value at risk.

Winding down these operations will be a slog. Many of Credit Suisse's investment-banking operations will be shoved into a "non-core" unit, along with some small parts of Credit Suisse's money-managing businesses. Modern "bad banks" do not contain masses of toxic derivatives, unlike those set up after the global financial crisis. But they are still hard to shutter without incurring significant losses.

Protection against losses from selling some of Credit Suisse's assets is provided by the Swiss government. As part of the acquisition agreement, the authorities committed themselves to absorbing up to SFr9bn of losses, so long as the first SFr5bn are shouldered by UBS. They are unlikely to have to cough up, however, given the relatively small pool of assets covered by the agreement. As a result, UBS could move to end the agreement before it has wound down the portfolio. The guarantee proved reassuring to investors during in March. Today it carries a lot of political risk for not all that much financial gain.

Moreover, the loss guarantee fails to insure against the greatest danger when winding down an investment bank: that revenues plummet faster than costs, creating painful losses. Even excluding the sizeable cost of employees and one-off items, outgoings in Credit Suisse's investment bank last year amounted to more than 60% of revenue. Many of these costs, such as the technology systems required to run a trading floor, will remain high even as assets are sold off. Consider Credit Suisse's own wind-down unit, which the bank created as part of its failed restructuring programme. The unit's assets have fallen by almost half since 2021, to SFr98bn; its costs, at SFr3bn in 2022, have hardly changed.

How quickly UBS is able to shutter this unit will be closely watched. So will what the bank's bosses do with their remaining investment bank. European investment banks have retreated since the financial crisis, especially in America. Both Barclays and Deutsche Bank have struggled to convince investors their businesses are worth retaining. UBS's investment bank is profitable, but would need a mighty boost to woo billionaires with its dealmaking advice. The prospect of building an elite, capital-light bank might be appealing in theory, and was the crux of Credit Suisse's plan to spin out its own investment bank under the moniker of "First Boston", a famous old firm that it acquired in 1990. But in practice this would require significant turnover among UBS's own bankers, too.

Mighty money manager

It is not clear that such bloodletting is required. In time, the success of the merger will be judged by UBS's price-to-book multiple. Morgan Stanley, which has ridden its wealth-management success to a multiple of more than two, is a worthy target. After the deal, UBS will remain a measly competitor in investment banking, but growth in the money it manages means it will close the gap in wealth management and overtake its rival in asset management. A bigger bank means bigger ambitions. ■



American prices

Of great interest

WASHINGTON, DC

As inflation cools, the Federal Reserve faces a bigger dilemma

IT WAS NEVER in doubt. In the run-up to the Federal Reserve's latest meeting, investors assigned a probability of nearly 99% to the central bank raising interest rates once again. On July 26th policymakers duly fulfilled those expectations, with their 11th increase in 12 meetings, together making for America's sharpest course of monetary tightening in four decades. The central bank's next steps, however, are clouded by uncertainty.

Some economists are convinced that this will be the Fed's last rate rise in this cycle. Inflation has come down from its highs in 2022, with consumer prices rising by just 3% year-on-year in June. Core inflation—which strips out volatile food and energy costs—has been a little more stubborn, but even it has started to soften, in a sign that underlying price pressures are easing. This opens a pathway for the Fed to relent, hopefully guiding America to a much-discussed soft landing. Ellen Zentner of Morgan Stanley, a bank, expects an "extended hold" for the Fed, presaging a rate cut at the start of next year.

Others are not so sure. Inflation has consistently wrong-footed optimists over the past couple of years. Were, for instance, energy prices to rally, consumers and businesses could quickly revise up their expectations for inflation, nudging the Fed towards another rate increase. If an incipient rebound in housing prices gathers pace, that would also fuel concerns. Vigour in the labour market adds to the worries, because fast-rising wages feed into inflation. Remarkably, the Fed's aggressive actions have barely affected American workers thus far: the unemployment rate today is



What do his eyes tell him?

3.6%, identical to its level in March 2022 when the Fed raised rates for the first time in this cycle (see chart i). The pace of tightening would normally be expected to drive up unemployment. Instead, the recovery from the covid-19 pandemic, including an increase in the number of willing workers, seems to have cushioned the economy.

Opposing views among economists are mirrored within the Fed itself. For the past two years America's central bankers have spoken in similar terms about the peril of inflation, and have been nearly unanimous when it comes to big rate moves. In recent months, however, divisions have surfaced. Christopher Waller, a Fed governor, has come to represent the more hawkish voices. This month he warned that the central bank could continue raising rates until there is sustained improvement in inflation, dismissing the over-optimism bred by the weaker-than-expected price figures for June. "One data point does not make a trend," he warned. At the other end of the spectrum is Raphael Bostic, president of the Fed's Atlanta branch, who said even before the latest rate increase that the central bank could stop hiking. "Gradual disinflation will continue," he assured listeners in late June.

Even if the latest rate increase does end up marking the peak for the Fed, Jerome Powell, its chairman, has maintained a hawkish tilt in his pronouncements.

"What our eyes are telling us is that policy has not been restrictive enough for long enough," he told a press conference following the rate rise. Financial conditions have loosened in recent months. The S&P 500, an index of America's biggest stocks, is up nearly one-fifth from its lows in March, when a handful of regional banks collapsed. With his sterner tone, Mr Powell may want to restrain investors from getting ahead of themselves, which could add to inflationary momentum.

Central bankers wanting to preserve their reputations as inflation-fighters may prefer to err towards toughness. Steven Englander of Standard Chartered, a bank, likens the Fed to a weather forecaster who thinks there is a 30% chance of rain. It still makes sense to highlight the potential for wet weather, because predicting sun but getting rain is perceived as worse than predicting rain and ending up with sun.

In practice, the Fed is sure to be flexible, reacting to economic data. It can look north of the American border for an example of the impossibility of maintaining a fixed policy stance. The Bank of Canada had stopped its rate-rise cycle in January, thinking that inflation had crested. But in June it was forced to resume tightening because economic growth had remained too hot, and inflation too sticky, for comfort.

Ultimately, though, there are no risk-free choices for the Fed. What is seen as the more dovish option—holding rates steady for the rest of this year—will in fact take on an increasingly hawkish hue if inflation does continue to recede. Unchanged nominal rates would be ever more restrictive in real terms (assuming that inflationary expectations diminish alongside waning price pressures). In such a scenario central bankers wishing to maintain their current policy stance should therefore think about cutting rates. When inflation was sky-high, the Fed's task was tough yet its decisions quite straightforward: officials did not really have much choice but to raise rates. From here on, its task looks easier but its decisions more fraught. ■



Political economy

Turning up the heat

Soaring temperatures and food prices threaten violent unrest

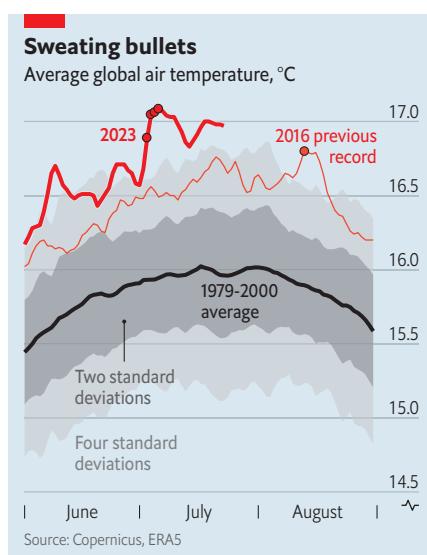
PROTESTS HAVE a funny way of kicking off when the mercury soars. The summer of 1967 is best known as “the summer of love”. It was a time when hippies flocked to America’s west coast to protest war, take drugs and peace out. But it was also a time when more than 150 race riots struck everywhere from Atlanta to Boston amid brutal temperatures, earning the period another name: “The long, hot summer.”

As the world warms, the link between heat and social disturbance is an increasingly important one and, this summer, an especially concerning one. Each upheaval has its own causes, but certain factors make disturbances more likely everywhere. Surging temperatures, rising food prices and cuts to public spending—three of the strongest predictors of turmoil—have driven estimates of the potential for unrest to unprecedented highs in recent months. These estimates will probably rise higher still this summer. Temperatures are unlikely to have peaked. Russia’s exit from the Black Sea Grain Initiative to export supplies from Ukraine and India’s recent ban on rice exports may raise the price of staples. Social unrest is already bubbling in Kenya, India, Israel and South Africa.

The summer of our discontent

In the first week of July the mean global temperature crossed the 17°C threshold for the first time, reaching a steamy 17.08°C. The average global temperature for the month as a whole is poised to be warmer than the hottest previous single-day average on record. This sort of weather spells trouble. In a study published in *Science*, Marshall Burke of Stanford University and Solomon Hsiang and Edward Miguel of the University of California, Berkeley, show that an uptick in temperature of just one standard deviation above the long-term mean—the kind of deviation a statistician expects to observe about once every six days—drives an increase in the frequency of unrest of almost 15%.

In the eight weeks since the start of June, the average global temperature has simmered at a consistent four to six standard deviations above levels recorded from 1980 to 2000. Our rough calculations, which extrapolate the relationship indicated in the *Science* study, suggest that record temperatures in June and July could have raised the global risk of violent social unrest by somewhere in the region of 50%.



The effects of El Niño, a weather pattern that brings warmer temperatures worldwide and recently got under way, are likely to produce a scorching end to the northern summer and start to the southern summer. Indeed, the phenomenon has coincided with more than one-fifth of all civil conflicts that have taken place since 1950.

Verisk Maplecroft, a risk-intelligence company, maintains a civil-unrest index that forecasts the potential for business disruption caused by social disturbances, including violent upheaval, on a country-by-country basis. According to the firm’s

estimates, the risk of global social unrest in the third quarter of 2023 is the highest since the index was created in 2017. That is because of both heat and the higher cost of living, says Jimena Blanco, the firm’s lead analyst. “High rates of food price inflation are a particular risk,” she warns.

Global inflation seems to have passed a peak, and international grain prices are lower than last year’s high. But that does not mean prices paid by consumers have stopped rising. In June annual food-price inflation was 17% in Britain, 14% in the EU and nearing 10% in Canada and Japan. It is higher still in many developing economies, especially those in Africa. Food-price inflation is close to 25% in Nigeria, 30% in Ethiopia and 65% in Egypt (the highest rate in the country’s history).

Bread-and-butter issues

Lower wholesale prices should in time feed through to consumers. But Russia’s choice to scupper the Black Sea Grain Initiative on July 17th, which was followed by four nights of attacks on the Ukrainian ports of Chornomorsk and Odessa in the Black Sea, has disturbed food markets, pushing prices in the opposite direction. Dry conditions elsewhere are also likely to exacerbate difficulties. Yields of Australian barley and wheat are forecast to decline by 34% and 30% this harvest. Stocks of American maize, wheat and sorghum are down by 6%, 17% and 51%. Last year these countries were the world’s two biggest exporters of the cereals by value.

More concerning still are events in India, which produces roughly 40% of global rice exports, and has suffered from debilitating rains this year. On July 20th the government responded by banning exports of all non-Basmati rice from the country. This will reduce global rice exports by about 10%, with almost immediate effect. The United Nations Food and Agriculture Orga-



At least the sun is out

▶nisation estimates that together maize, rice and wheat provide more than two-fifths of the world's calorific intake. Among the world's poorest populations, the figure may rise to four-fifths. If prices do not start to fall soon, people will only get hungrier. And hungrier people are more likely to hit the streets.

Fiscal austerity may further destabilise things. Many governments have committed to raising taxes or cutting expenditures in order to bring debt under control after lavish spending during covid-19. Jacopo Ponticelli of Northwestern University and

Hans-Joachim Voth of the University of Zurich investigated almost a century of data from 25 European economies. They discovered that each additional 5% cut in government spending increases the frequency of social unrest by 28%.

Social upheaval can have a scarring effect on economies, too. Metodij Hadzi-Vaskov, Samuel Pienknagura and Luca Ricci, all of the IMF, recently looked at 35 years of quarterly data from 130 countries. They found that even 18 months after a moderate episode of social unrest a country's GDP remains 0.2% lower. By contrast, 18 months

after a major episode of unrest a country's GDP remains 1% lower.

Countries beyond the rich world have a more concerning outlook. The damage done by unrest is about twice as large in emerging markets as in advanced economies, according to the IMF researchers, with lower business and consumer confidence, and heightened uncertainty, exacerbating the much greater risk of sudden capital flight. This bodes ill for what is set to be a year of rising food prices, boiling weather and spending cuts. Expect a long, hot, uncomfortable summer. ■

Buttonwood Cowabunga

Investors everywhere are seized by optimism. Can the bull market last?

BULL MARKETS, according to John Templeton, "are born on pessimism, grow on scepticism, mature on optimism and die of euphoria". The legendary Wall Street fund manager put this philosophy into practice in 1939. At a time when others were panicking about Europe's descent into war, Templeton borrowed money to buy 100 of every share trading below \$1 on the New York Stock Exchange. Within a few years he had booked a 400% profit and forged a template for future investors. Even in the 21st century, Templeton's favoured moments of "maximum pessimism" present the very best buying opportunities. In March 2009 investors despaired over the future of capitalism; in March 2020, over a pandemic and shuttered businesses. Both times, the correct response was to close your eyes and buy stocks.

It now looks like October 2022 should be added to the list. Pessimism was certainly rife. Central banks were raising interest rates at their fastest pace in decades. Inflation was hitting double digits in the euro zone and falling only slowly in America. Recession seemed just about nailed on. War had returned to Europe. China appeared trapped between lockdowns and soaring covid-19 deaths. Across the northern hemisphere, a cold winter threatened to send energy prices soaring again, turning a miserable downturn into a truly dangerous one. America's S&P 500 index of leading shares was down by nearly one-quarter from its peak; Germany's DAX by more.

True to form, it was an excellent time to buy. The S&P 500 has since risen by 28%. That puts it at its highest level in over a year, and within 5% of the all-time peak it reached at the start of 2022. Moreover, the rally's progress has been positively Templetonian. Born on despair, it

then advanced to the scepticism phase. Investors spent months betting that the Federal Reserve would not raise rates as high as its governors insisted they were prepared to lift them, while economists admonished their foolhardiness from the sidelines. All the time, with frequent reversals, stocks edged nervously upwards.

For a few weeks, as first one then several American regional banks collapsed in the face of rising rates, it looked like the sceptics had won the day. Instead, it was time to proceed to the optimism phase. Hope of an AI-fuelled productivity boom displaced fears about growth and inflation as the main market narrative. Shares in big tech firms—deemed well-placed to capitalise on such a boom—duly rocketed.

Now the party has spilled over into the rest of the market. You can see this by comparing America's benchmark S&P 500 index (which weights companies by their market value and so is dominated by the biggest seven tech firms) with its "equal-weight" cousin (which treats each stock equally). From March to June, the tech-heavy benchmark index raced ahead while

its cousin stagnated. Since June both have climbed, but the broader equal-weight index has done better. And they have both been trounced by the KBW index of bank stocks. What started as a narrowly led climb has broadened into a full-blown bull market.

It is not just in stockmarket indices that the new mood is apparent. Bloomberg, a data provider, collects end-of-year forecasts for the S&P 500 from 23 Wall Street investment firms. Since the start of the year, 14 of these institutions have raised their forecasts; just one has lowered it. Retail investors, surveyed every week by the American Association of Individual Investors, are feeling their most bullish since November 2021. Even the long-moribund market for initial public offerings may be witnessing green shoots. On July 19th Oddity Tech, an AI beauty firm, sold \$424m-worth of its shares by listing on the Nasdaq, a tech-focused exchange. Investors had placed orders for more than \$10bn.

If investors are to keep paying more and more for stocks, which they will have to do to keep the run going, they must believe at least one of three things. One is that earnings will rise. Another is that the alternatives, especially the yield on government bonds, will become less attractive. The third is that earnings are so unlikely to disappoint that it is worth coughing up more for stocks and accepting a lower return. This final belief is captured by a squeezed "equity risk premium", which measures the excess expected return investors require in order to hold risky shares instead of safer bonds. This year it has plunged to its lowest since before the global financial crisis of 2007-09. The market, in other words, appears on the verge of euphoria. What would Templeton think of that?



Free exchange | Will China always be cheap?

The world's second-biggest economy will become a more distant second this year



CHINA HAS a new central-bank boss. Pan Gongsheng, who became governor of the People's Bank of China on July 25th, is a technocrat. His career, which includes a PhD in economics, research at Cambridge University and Harvard, and a stint as deputy governor, resembles those of central bankers elsewhere. But he inherits a different problem: too little inflation, not too much.

China's consumer prices did not rise at all in the year to June. The country's GDP deflator, a broad measure of the price of goods and services, fell by 1.4% in the second quarter, compared with a year earlier. That is the biggest decline since 2009.

Falling prices pose immediate dangers for the country's policy-makers. They can erode profits, depress confidence and deter borrowing and investment, which will only add to deflationary pressure. The absence of inflation also has a less immediate implication—one of particular interest to those keeping score in the geopolitical race between China and America. Deflation could delay China's emergence as the world's biggest economy.

Despite its difficulties, China's economy is expected to grow by about 5% this year. America's will probably grow by 2% at best. China would then appear to be gaining ground. But these forecasts exclude inflation and ignore exchange rates. America's "nominal" growth, before adjusting for inflation, could exceed 6%, according to Goldman Sachs, a bank. The country will produce 2% more stuff, the price of which could rise by about 4%. China's nominal growth, on the other hand, is forecast to be only 5.5%.

In theory, high inflation in America should weaken the dollar. This would make other economies like China loom larger in dollar terms. In practice, however, America's currency has been strong. As a result, China's GDP, converted into dollars, could fall further behind its rival's in 2023, for the second year in a row. The country's economy will be 67% the size of America's in 2023, according to Goldman Sachs, compared with 76% in 2021. Thus the world's second-biggest economy will be a more distant second.

This trajectory is unexpected. Upstart economies like China's are not only supposed to grow faster than mature economies, their prices are also supposed to "catch up" with the higher prices that prevail in rich countries. Emerging economies start out poor and cheap, then grow richer and more expensive—either because their

prices rise quickly, or because their exchange rates strengthen. In the 1960s, for example, an American visiting Italy or Japan would have found that the dollar stretched further in these countries than back home. Lira and yen prices, when converted into dollars at market exchange rates, were lower than American prices for similar items. Two or three decades later, both Italy and Japan were just as pricey as the United States.

The classic explanation for this phenomenon was provided by Bela Balassa and Paul Samuelson, two economists, in 1964. In catch-up economies, productivity grows briskly in industries, like manufacturing, that trade goods across borders. Because output per worker rises quickly, firms can afford to pay their workers more without raising their prices, which are pinned down by global competition. Meanwhile, in sectors such as services, which are not much traded across borders, productivity grows more slowly. Service firms must nonetheless compete with manufacturing for the country's workers. That obliges them to raise their wages to attract recruits. Higher wages, in turn, force these firms to raise prices. These price hikes are required because productivity has not kept up, and possible because services are sheltered from global competition. The hikes also make the country more expensive: the price of haircuts rises in sympathy with the growing wages of increasingly productive manufacturing workers.

China's prices are now on average only 60% of American prices when comparing like-for-like items, according to the World Bank. Their figure lines up with this newspaper's Big Mac index, which compares the price of burgers around the world. In China a Big Mac costs 24 yuan, the equivalent of \$3.35. That is only 63% of the cost of a similar meaty treat in America.

The long-term forecasters at Goldman Sachs expect China's price level to have risen modestly, relative to America's, by the middle of the next decade. By that point, China's GDP will have become the biggest in the world, they project. If prices instead remain at their present low level, then China's GDP may never overtake America's at all. Capital Economics, a research firm, cleaves to this gloomier view. It thinks China's growth per worker will slow to roughly the same pace as America's within the next decade. If China is no longer catching up with America economically, it argues, there is no reason to expect its prices to catch up either.

Catch-up and fries

That conclusion may be too hasty. History provides plenty of cases in which a country's prices rise, relative to America's, even as its GDP per head grows no faster. For example, Ireland, Israel and Italy all had spells in the 1980s when GDP per person grew more slowly than America's, but they nonetheless became less cheap, through faster inflation or a strengthened exchange rate. Figures from the Penn World Table suggest that, all told, 156 countries have had at least one ten-year period of price convergence without economic convergence since 1960.

This pattern is ultimately compatible with Balassa's and Samuelson's theory. If a dynamic manufacturing sector was offset by a moribund services sector, a country could grow modestly overall, but still become more expensive. The price of services would rise quickly, pulled along by competition for labour from more productive manufacturing companies.

Will China's cheapness persist? That will depend not just on how fast it grows relative to America, but how fast its manufacturing grows relative to homebound industries. To close the GDP gap with America, China will have to narrow the price gap, too. ■



Weather forecasting

Taming the chaos

BOLOGNA AND HAMBURG

Climate change is making weather forecasts more important than ever, even as private firms—and AI—are transforming the business

MATTEO DELL'ACQUA has to shout to make himself heard. Engine Room Number Five at the European Centre for Medium-Range Weather Forecasts' data centre in Bologna houses a series of motors, each turning a three-tonne flywheel. Should the electricity cut out, the flywheels—and those in four other rooms elsewhere in the building—have enough momentum to keep the ECMWF's newest supercomputer running until the back-up diesel generators fire up.

Those generators have fuel for three days. A longer blackout would spell disaster. Weather shapes military campaigns and crop harvests, sports matches and supply chains. Losing access to the world's most reliable weather forecast would drastically reduce the prescience and preparedness of more than 35 countries, NATO, at least one space agency and a great many research institutions and businesses. The operation must run constantly, says Mr Dell'Acqua, who is in charge of the whole affair. "It's really critical."

Built inside a former tobacco factory,

the Bologna data centre is a nerve centre of ECMWF's operations. Every day, 800m observations pour in from satellites, ocean buoys, ground weather stations, balloons and aircraft. Besides preparations for a power cut, there are contingency plans for floods and fires. Water from two external towers is circulated constantly, keeping the electronics cool.

Outside, though, cooling is in short supply. For the past two weeks much of Europe has been gripped by a punishing heatwave. Bologna was one of 23 Italian cities put on "red alert". Several countries broke temperature records; fires have burned across Greece and the Canary Islands. Large swathes of America and Asia were also beset by sweltering heat. July 6th saw the highest average global air temperature ever recorded on Earth, according to estimates published by the University of Maine. Elsewhere, the weather brought a different kind of misery. Torrential rain in South Korea, India and on America's east coast killed scores. Two days after *The Economist*'s visit to Bologna, hailstones the

size of tennis balls rained down on the nearby city of Milan.

Climate scientists reckon the heatwaves were made far more likely by climate change. Weather forecasts gave countries advance warning, a job that will become even more important as the planet warms further. Governments are investing in bigger and better forecasting models. They are being joined by private firms producing smaller-scale, specialised forecasts for businesses—and by tech firms betting that AI can revolutionise the field.

Modern weather forecasting owes its existence to the advent of digital computers in the 1960s and 1970s. It has improved steadily ever since (see chart on next page). The World Meteorological Organisation (WMO), an arm of the United Nations, reckons that a five-day forecast today is about as accurate as a two-day forecast was a quarter of a century ago.

Cloud computing

Most of that improvement has been down to more powerful computers, says Tim Palmer, a meteorologist and physicist at the University of Oxford. Weather forecasts work by carving the world into a grid of three-dimensional boxes. Each is populated with temperature, air pressure, wind speed and the like, and the system's evolution simulated by grinding through enormous numbers of calculations.

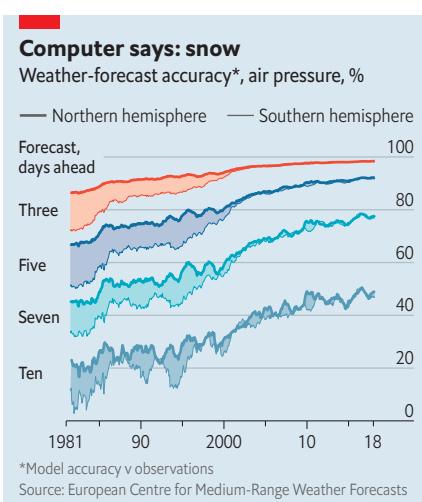
Better computers allow finer models. In the same way that a high-resolution digital

► photo looks more realistic than a coarse-grained one, using a smaller grid helps match a model more closely to the real world. The ECMWF's highest-resolution global model, for instance, chops the globe into boxes that are 9km square, down from 16km in 2016, and splits the atmosphere vertically into more than 100 layers.

Smaller grids also allow models to recreate more of what happens in the real weather. "Deep convective clouds", for instance, are formed as hot air floats upwards. They can produce heavy rain, hail and even tornadoes, but typically cannot be resolved with grids bigger than about 5km. Models have instead represented them using stopgap code that acts as a simplified substitution.

But smaller grids come at a high price. Halving the horizontal size of a grid means that four times as many boxes—and four times as many calculations—are needed to cover a given area. One option is to trade resolution for locality. The sharpest offering from the National Oceanic and Atmospheric Administration, in America, for instance, uses grid boxes 3km square, but covers only North America. Computing, meanwhile, continues to improve. The world's fastest computer is Frontier, installed at Oak Ridge National Laboratory in Tennessee. Using it, ECMWF scientists were able to experiment with running a worldwide model with a 1km resolution.

But no matter how powerful computers become, there is a limit to how far ahead a numerical forecast can look. The atmosphere is what mathematicians call a "chaotic system"—one that is exquisitely sensitive to its starting conditions. A tiny initial change in temperature or pressure can compound over days into drastically different sorts of weather. Since no measurement can be perfectly accurate, this is a problem that no amount of computing power can solve. In 2019 American and



European scientists found that even the most minor alterations to simulations resulted in highly divergent forecasts for day-to-day weather after about 15 days. "It seems to be a limit that nature sets," explains Falko Judt, a meteorologist at the National Centre for Atmospheric Research, in America. "It has nothing to do with our technological capabilities."

Private prognostications

The WMO reckons numerical forecasting will approach that theoretical limit sometime around 2050. But that leaves plenty of room for improvement in the meantime. The ECMWF presently produces accurate forecasts of daily weather—meaning it can predict things like the temperature and when it will rain, give or take a couple of degrees or hours—around the globe at least a week ahead of time. It has, on occasion, successfully predicted certain big events, like hurricanes, up to ten days ahead.

But big global or regional forecasts are not the only game in town. There is also a growing demand for faster or more specific

forecasts than can be provided by public institutions (which, being mostly funded by taxpayers, tend to produce what will be the most helpful to the most people). Private companies are filling the gaps.

In 2016, for instance, IBM, an American computing firm, bought the Weather Company, which specialised in combining different governmental models, for an estimated \$2bn. (Sceptics joked that IBM had invested in the wrong type of cloud.) Within a year the firm began selling "hyper-local" forecasts to businesses, designed to predict the weather in a small area between two and 12 hours ahead. By 2020, according to Comscore, an American media-analytics firm, IBM was the biggest provider of weather forecasts in the world.

The firm's success stems, in part, from its freedom to pick its own priorities. Predicting the weather only a few hours ahead drastically reduces the amount of number-crunching required. That, says Peter Neilliey, the Weather Company's chief meteorologist, allowed the firm to develop a global model with a 3km resolution that churns out a new forecast once an hour. (The ECMWF's high resolution global model, by contrast, produces a new forecast every six hours.)

Alongside its own model, the Weather Company still sucks in the output of publicly funded forecasters around the world. That reveals another private-sector perk. Some national and international agencies, including both the Met Office in Britain and the ECMWF, can charge businesses that use their output. But all are obliged to make them available. The pipeline does not have to flow in the other direction.

In recent years, private offerings have become even more specific. Companies are increasingly aware of how the weather affects their work. For instance, wind and solar energy producers—and the electricity grids to which they are connected—rely on knowing what the weather will do in the next few hours. Other applications are less obvious. Deliveroo, a food-delivery firm, knows that it must account for the effect of rain on traffic when working out the fastest way to transport a pad Thai from one side of a city to another.

Meteomatics, a Swiss firm founded in 2012, allows its customers to crunch data from a range of sources in a way that suits their needs—such as "downscaling" the output of a numerical model by shaping it around the local topography. Those customers, say Alexander Stauch and Rob Hutchinson, two of the firm's senior managers, increasingly want to pipe that data directly into their own algorithms. Energy traders, for example, predict gas prices based on how much wind or sunshine is around to generate wind or solar power.

Meteomatics also aims to fill in gaps in observational data for places their clients ►



► are interested in. To that end, it flies its own fleet of sensor-covered drones. In May Tomorrow.io, an American firm founded in 2015, began launching satellites that are likewise designed to help plug data holes around the world. Its main product, though, is "weather intelligence" software that turns forecasts into instructions. The Bill and Melinda Gates Foundation, one of the world's biggest charities, uses the company to send text messages to farmers in sub-Saharan Africa, advising them on when best to plant their crops.

Private players insist their participation is beneficial for everyone. There are far more weather stations in rich countries than poor ones (see map on previous page). "Outside of America, western Europe, Japan and Australia, and a couple of other countries, national meteorological services are lagging decades behind," says Rei Goffer, one of Tomorrow.io's founders. Some rich-country agencies help other countries—the Met Office, for example, works with the governments of India, South Africa and several South-East Asian countries. Even so, Mr Goffer argues, many countries simply cannot afford the sort of good-quality forecasting that might help them adapt to a changing climate. Tomorrow.io's satellites aim to allow countries access to better weather infrastructure without having to build it from scratch.

Sunny with a chance of AI

Private companies have also been at the forefront of attempts to find new, less computationally onerous ways of predicting the weather. Many are focusing on machine learning, a type of artificial intelligence (AI) that looks for patterns in big piles of data. Salient, an American startup, uses an AI trained to recognise patterns in historical data to produce forecasts on a seasonal scale, rather than over days or weeks. Its customers include Zurich Insurance Group, which hopes to get early warnings of extreme weather its clients might face.

AI can spot patterns that human researchers may have missed. Ray Schmitt, a researcher at the Woods Hole Oceanographic Institution in Massachusetts, is one of Salient's founders. He had theorised about a link between ocean salinity around the east coast of America in spring and rainfall across the Midwest the following summer. AI analysis of weather data seems to confirm the connection, though the precise mechanism remains unclear.

That illustrates another intriguing feature of AI-based forecasts. Numerical simulations rely on their programmers having a good understanding of the physical processes that drive the weather. But using an AI to spot recurring patterns can help useful forecasts be produced even before the underlying science is fully understood.

Machine learning has already proved its

worth with precipitation "nowcasting"—predicting whether it will rain or snow in a given area over the next few hours. The WMO reckons that, over the past 50 years, 22% of deaths and 57% of economic losses caused by natural disasters were the result of "extreme precipitation" events. But predicting them can be tricky for existing numerical models, partly because, by the time they have finished running, the moment has often passed. AI pattern recognition requires less computational grunt, allowing it to make forecasts more quickly.

A 2021 collaboration between DeepMind, a part of Google, and the Met Office in Britain used AI to forecast precipitation based on observations from rain-detecting radar. The AI system outperformed existing, numerical forecasting methods nine times out of ten—though it started to stumble when asked to forecast beyond about 90 minutes.

Other big firms with AI expertise are getting involved, too. A paper published in *Nature* on July 5th described Pangu-Weather, an AI system built by Huawei, a Chinese firm, and trained on 39 years of weather data. Huawei claims Pangu-Weather can produce week-ahead predictions comparable in accuracy to forecasts from outfits like ECMWF, but thousands of times faster. Last year Nvidia, an American chipmaker, claimed that FourCastNet, its AI weather program, could generate, in two seconds, a forecast that can predict hurricanes and heavy rain up to a week in advance.

Governmental incumbents are coming around. The ECMWF was surprised by the results of Pangu-Weather, says Florence Rabier, the organisation's director-general. "We did see a lot of potential, and they are not exaggerating the claims that it is much cheaper [to run]," she says. The ECMWF is now working with Huawei, as well as with Google and Nvidia.

That does not mean that AI will replace numerical forecasting, though it could help it become more efficient. AI relies crucially on high-quality data on which to train models. Since many parts of the world lack reliable data from weather stations, old-fashioned numerical simulations must be used retrospectively to fill in the gaps. And just as computational approaches face fundamental limits to their utility, so too do AI-based ones. History is a less reliable guide to the future in a world whose weather is being fundamentally altered by climate change.

More public-private collaboration is on the cards. By 2030, the European Commission hopes to have finished "Destination Earth", a simulation that can handle both short-term weather patterns and longer-term changes in the climate. It hopes that users, with the help of AI, will be able to visualise how animal migration patterns might change as temperatures rise, or what might happen to fish stocks as the oceans warm. Nvidia, whose chips power most of the world's biggest AI models, has said it will participate. The firm has also signed up to an even more ambitious plan for a network of "Earth Virtualisation Engines" proposed at a meeting this month in Berlin by a group led by Bjorn Stevens, the director of the Max Planck Institute for Meteorology in Hamburg.

Dr Stevens sees all this ferment as part of a shift in how information about the weather is conceived of, produced and used. Turning observations into something helpful like a forecast used to require a lot of expert knowledge, he says. That made it the domain of a handful of big institutions. But recent technological advances, especially AI, have made doing that both easier and cheaper. "That makes [weather] data valuable," he says. "And that is transforming everything." ■



Forewarned is forearmed



Literary criticism

The death of the hatchet job

Critics are criticising less. Alas

IT IS DELICIOUS to know that one reviewer called John Keats's poetry "drivelling idiocy". It is more pleasing yet that Virginia Woolf considered James Joyce's writing to be "tosh". And surely no one can be uncheered to hear that when the critic Dorothy Parker read "Winnie the Pooh" she found it so full of innocent, childish whimsy that she—in her own moment of whimsical spelling—"frowed up".

For the reader, life offers few purer pleasures than a very good, very bad review. For the writer, life offers few purer pains. After Parker, A.A. Milne never wrote another "Whimsy" the Pooh again; the mere word "whimsical" became "loathsome" to him. After the "drivelling idiocy" comment, Keats obligingly dropped dead. "Snuffed out", Lord Byron wrote, "by an article".

Literary life rarely offers such splendid spectacles today. Open book-review pages, and you are more likely to see writers describing each other and their work with such words as "lyrical", "brilliant" and "insightful" rather than, as they once did, "tiresome", "an idiot" and a "dunghill". On literary pages there is now what one writer

called "endemic" grade inflation. An editor for BuzzFeed, a news site, even announced that its books section would not do negative book reviews at all. This was wonderful news for writers (and their mums) everywhere. It was much less good news for readers. The literary world may no longer need to mourn spurned poets; it does need to mourn the death of the hatchet job.

Few will lament it loudly. Criticism is not a noble calling: as the old saying has it, no city has ever erected a statue to a critic. But then few cities have erected statues to sewage engineers or prostate surgeons either. But they are useful, just as critics are. A well-read person might read 20 or so books a year. By contrast, 153,000 books were published last year in Britain alone, according to Nielsen BookData. That is an

average of 420-odd books a day. Last year's crop included "Thinking About Tears: Crying and Weeping in Long-Eighteenth-Century France" and "Is Your Cat a Psychopath?" It might be that these books all deserve epithets such as "insightful". It seems unlikely.

It is an open secret in the literary world that most books are very bad indeed. It is the job of critics to fillet them, first physically (work on a books desk and your first, deeply dispiriting job will be to go through the sacks of books delivered each week) then literally, with reviews. George Orwell, a veteran critic, knew that reviews should be brutal. He wrote, "In much more than nine cases out of ten the only objectively truthful criticism would be 'This book is worthless,'" while the only truthful review would say, "This book does not interest me in any way, and I would not write about it unless I were paid to."

Reviews are rarely so punchy. Some publications keep up the tradition of forceful criticism, but too often reviews feel like a smug inside job. Literary newspapers are particularly prone to this. They tend to be rich in reviewers called "Ferdinand"; in words like "jejune"; and in headlines that read less like a promise than a threat: "Whither Somalia?", "Structuralism Domesticated" or (the question that is on everyone's lips) "Who's Afraid of Close Reading?" Hatchet jobs, by contrast, usually opt for a less elevated style. In one notorious review the critic Philip Hensher wrote that an author was so bad "he could ➤

→ Also in this section

64 Fake news in the Soviet Union

65 The perils of ultra-processed foods

66 A scathing history of America's left

▶ not write ‘bum’ on a wall.”

Once, such zingers were common on literary pages. In the Victorian era, “reviews were seen as a kind of cultural hygiene, so there were high standards,” says Robert Douglas-Fairhurst, a professor of English at Oxford University. Reviewers were not merely taking a swipe at an enemy but cleansing the sacred halls of literature. Not that this stopped them from mild grubbiness themselves. For example, one reviewer called a fellow writer’s work “feculent garbage”; the reliably robust Alfred Tennyson called yet another “a louse upon the locks of literature”; while John Milton (apparently having momentarily lost paradise again) described another as an “un-swill’d hogshead”.

Brandish your weapons

Fun though such excesses are, the most lethal reviews tend to be more delicate. The best bad reviews are not hatchet jobs but scalpel jobs, observes the British critic Adam Mars-Jones, “because if it’s not precise, it’s not going to work.” The Victorians brandished scalpels too. One of the finest was wielded by George Eliot on Charlotte Brontë’s “Jane Eyre”. “I wish”, Eliot wrote, “the characters would talk a little less like the heroes and heroines of police reports.”

Modern reviewers rarely achieve such lethal beauty. All too often reviews are replete with filler words: “darkly funny”, “searing”, “profound meditation”. Many of these—reader, be warned—are euphemisms for the word “boring”, which is in effect forbidden on literary pages. So there is “detailed” (“boring”); “exhaustive” (“really boring”); “magisterial” (“boring but by a professor, and I did not finish it so cannot criticise it”). And so on.

The internet is one reason for this softening. It has altered both the economics of criticism (shrunken newspapers have fewer books pages, so editors tend to fill them with the books you should read, not the ones you should not) and the advisability of it (insults that seemed amusing blurred out in the moment pall when they echo online for eternity). The tendency to recruit specialist reviewers has not helped. If you are one of the world’s two experts in early Sumerian cuneiform and you give a bad review to the other one, it might be fun for 20 minutes—and regrettable for 20 years.

The internet has also helped decrease anonymity. Once, most reviews were unbylined, offering reviewers the facelessness of an obscure Twitter troll. Today, most reviewers are not only named but easily searchable—and insultable in return. Whereas 30 years ago, critics were “tacitly encouraged to really have a go at people”, now people are “terrified of giving offence” lest a Twitter pile-on follow, says D.J. Taylor, a writer and critic.

There have been attempts to revive

sharp criticism. In 2012 an award called the “Hatchet Job of the Year” was launched by two critics (including one who now works at *The Economist*) as a “crusade against dullness, deference and lazy thinking”. It ran for three years. Fleur Macdonald, one of its co-founders, thinks that “the literary scene probably needs it more than ever now,” but that it would struggle to revive and get sponsorship since “bad book reviews are controversial.”

The hatchets do still come out occasionally, not for first books or those by unknown authors (it is considered pointless and cruel) but for writers famous enough to attack. Prince Harry’s “Spare” was almost universally panned. This can be agonising for writers. Anthony Powell, a novelist, believed people were either “fans” or “shits”, while one of the most famous poems of the Roman writer Catullus is a riposte to critics who accused him of being effeminate. “Pedicabo ego vos et irrumabo,” he wrote, which means (broadly speaking): “I will sodomise and face-fuck you.” Not the sort of thing you see in the *Times Literary Supplement* these days.

And so the blades glint less. But they should still glint occasionally. What can be forgotten is that the real market for reviews is not the critic or the author. It is the reader. And they still want to know, says Mr Taylor, “whether they ought to spend £15.99 on a book.” The critic has “a duty” to tell the truth. Besides, if the writer doesn’t like it, they are, after all, a writer. They can, as Catullus did, respond. Though they might decide to go light on the profanity if they want to get published in BuzzFeed. ■

Rotten reporting on Russia

News you can’t use

The Red Hotel: The Untold Story of Stalin’s Disinformation War. By Alan Philps. Pegasus; 451 pages; \$29.95. Headline; £22

WHEN GERMANY attacked the Soviet Union in 1941, Winston Churchill persuaded Josef Stalin to let a posse of British and American journalists come to reside in Moscow to tell the Western world about the communists’ bravery in fending off the Nazis. More than a dozen scribes found themselves corralled within the Metropol Hotel, a huge art-nouveau edifice just off Red Square in Moscow, which already housed a motley group of Stalinist spies and prostitutes. (The hotel remains open today but with a different clientele.)



Stalin’s stooges

The Western journalists, mostly male, all tightly muzzled by censors and prevented from travelling freely, soon found themselves in hock to (and occasionally in bed with) a bevy of women who doubled as translators and fixers. “The Red Hotel” is a compelling and often horrifying tale of moral degradation and occasional heroism superbly told by a seasoned reporter, Alan Philps, who knew Moscow first-hand in the last years of communism.

The shiniest stars in Mr Philps’s book are the female fixers who were controlled by the secret police but managed against the odds to retain a modicum of their integrity. Among the most remarkable was Nadya Ulanovskaya, a Jewish Ukrainian who had been a revolutionary in the 1920s. Reprieved at the last minute after being sentenced to death by firing squad, she then became part of a Soviet spy ring in America and elsewhere. Mr Philps, who has invoked a stunning range of Russian and Western archival sources and obscure memoirs, draws heavily from Ulanovskaya’s little-known autobiography, showing how this fervent believer in communism lost all faith in it.

Even before Churchill’s wartime press deal with Stalin, a reporter previously based in Russia for the *New York Times* had written a bitter, unpublished cable to his editors, lamenting that correspondents in Moscow had been “reduced to the role of precis-writers of TASS [the Soviet news agency]...Every correspondent still there knows that his work is entirely valueless.” Indeed, the correspondents in the hotel, which they called a “gilded cage”, issued not a peep in their dispatches about the twin horrors of Stalin’s benighted country: pervasive poverty and the terror imposed by the NKVD, forerunner of the KGB.

The most shameful nadir of Western ▶

▶ coverage was the carefully orchestrated group visit in 1944 to the grisly site of the Soviet massacre of Polish officers and gendarmes at Katyn forest, which the press corps dutifully attributed to the Germans. Altogether some 22,000 Poles are reckoned to have been murdered there and at other sites by the NKVD.

Some of the correspondents who had submitted to the rigours of censorship later wrote memoirs that sorrowfully acknowledged how they had been unable to convey a truthful picture of the Soviet reality. No Western journalist during the war was able to interview Stalin face-to-face, though one managed to enrage him at a state banquet by cheekily calling for a free press. (He then promptly left the country.) Amid the hunger immiserating much of the population, the correspondents were treated to frequent, gargantuan meals.

Of the correspondents depicted in "The Red Hotel", probably the one who wrote most truthfully was Arthur Cholerton of the *Daily Telegraph*. After a break in Britain he was refused re-entry; his translator and lover was sentenced to 15 years in the gulag. The most despicable yet mysterious of the hotel team was Ralph Parker, who wrote grovelling pro-Soviet dispatches for both the *New York Times* and the *Times* of London. A former senior KGB official wrote in 2001 that Parker was as valuable as Kim Philby, the notorious British double-agent. Guy Burgess, another Briton who spied for Russia and ended up in Moscow, told a visitor, "We all think he's an agent, but we can't make out whose side he's on." Parker was the sole Western reporter to have the honour of receiving from Stalin an answer to a written question. After the war, would the Soviet Union respect the independence of Poland? "Unquestionably," came Stalin's brazenly mendacious reply.

The worst effect of the correspondents' varnished reports, which disguised the horror of the regime, was that many of their readers in the West were lulled into believing that "Uncle Joe" was a worthy ally with whom cosy relations could be established after the war. Many readers felt betrayed and angry when the conditions imposed on their newspapers' reporters were later exposed.

The obstacles to free reporting faced by Western correspondents persisted long after Stalin. But the moral hazard whereby Western journalists and academics took care not to offend the regime, so as not to lose their visa, prevailed until the end of communism. Mr Philps makes no bones about painting Vladimir Putin as a clone of previous dictators: his regime depends on, among other things, a subservient press at home and the indulgence of hacks who wish to visit from abroad. But fewer foreign journalists today are willing to play his game. ■

World in a dish

Edible industrial products

NEW YORK

Confronting the dangers of ultra-processed food

WHICH IS HEALTHIER: a bag of crisps or a kale salad? That is easy. Now which is healthier: a pizza made from scratch or one made from the same basic ingredients, with the same number of calories, pulled out of a box in the freezer?

Many people concerned with what they eat would instinctively say the former, perhaps citing a vague concern with "processed food". Such food can often be delicious. (This columnist has a particular weakness for salty potato crisps.) And there is much to cheer about calories being cheap and abundant, when for most of human history they were neither. But as Chris van Tulleken's new book, "Ultra-Processed People", explains, that cheapness and abundance come at a cost.

Mr van Tulleken, a doctor and television presenter, draws a distinction between "ultra-processed food" (UPF) and "processed food". Almost everything people consume is processed in some form: rice is harvested and hulled, animals are butchered. He uses a definition proposed by Carlos Monteiro, a food scientist, describing UPF as "formulations of ingredients, mostly of exclusive industrial use, made by a series of industrial processes, many requiring sophisticated equipment and technology". A pizza made from scratch contains minimally processed food (wheat turned into flour, tomatoes into sauce, milk into cheese). The one in the freezer, with its thiamine mononitrate and sodium phosphate, is UPF.

The cocktail of additives and preservatives in UPF harm people in ways both

known and unknown. It seems to affect the gut microbiome, the trillions of bacteria that contribute to health in a range of ways. Calorie-rich but usually nutrient-poor, UPF contributes to obesity in part because its palatability and soft texture foster over-consumption, overriding satiety signals from the brain.

Because this frankenfood is cheap to produce and buy, UPF displaces healthier alternatives, particularly for poor people. Extra weight was once a sign of wealth, but among British and American women today, obesity rates are higher at lower-income levels. (Curiously, rates do not vary for men, even though a greater share of American men than women are obese.)

The reasons why UPF can be harmful are not always clear, even to scientists. Additives that may be safe in isolation or small quantities may be harmful in combination with other chemicals or when consumed regularly. If we are what we eat, considering the impact of UPF is essential, but too often Mr van Tulleken's case for clean food is accompanied by anti-capitalist preening: for instance, he nonsensically calls corporate-tax minimisation "part of ultra-processing".

Environment matters, too. People who live in what the author calls "food swamps", where "UPF is everywhere but real food is harder to reach", could spend large amounts of time and money seeking out fresh food, but that is not how most people live. There is nothing wrong with the odd fast-food trip, but anyone who can afford to eat less UPF probably should. ■





America's culture war

The great leap backward

Christopher Rufo, a strategist for the American right, explains the left by examining the past

America's Cultural Revolution: How the Radical Left Conquered Everything. By Christopher Rufo. Broadside Books; 352 pages; \$32. To be published in Britain in September; £25

THE AMERICAN left's political philosophy may lack a plain name—what some call wokeness, others call identity politics, critical race theory (CRT) or anti-racism—but it does have a chief sceptic. Christopher Rufo, a former film-maker and conservative writer employed by the Manhattan Institute, a think-tank, rose to prominence in 2020 by documenting the encroachment of progressive ideas into American school curriculums.

More than anyone outside elected office except perhaps Tucker Carlson, a former Fox News anchor, Mr Rufo (pictured right) has served as a mastermind of the right's attacks on the left. He brought attention to CRT (the teaching of systemic racism as a cause of inequality), inspiring Donald Trump to issue an executive order in 2020 banning it in federal departments and contracts. Mr Rufo is now zeroing in on other divisive issues, such as gender and sexuality. Ron DeSantis (pictured left), the governor of Florida and a close follower of Mr Rufo's work, hopes to surf the waves of anti-woke animus to the White House. He may not be name-checked in the presidential contest of 2024, but Mr Rufo will influence many Republican candidates and the subjects they rage against.

For obvious reasons Mr Rufo's new

book has been attracting great interest. But readers may be surprised that it is more of an origin story than a polemic. "America's Cultural Revolution" is an intellectual history of the critical theories, generally Marxist in origin, that emerged decades ago and which, in Mr Rufo's persuasive and well-written telling, morphed into today's theory of social justice.

The running metaphor throughout the work is Maoist, starting with the title invoking China's Cultural Revolution, which began in 1966 (though the reader might quibble with the sensationalist comparison, given the mostly non-existent death toll for the American version). Mr Rufo argues that radical ideas of overthrowing capitalism and deconstructing objectivity that were discredited by the history of communism's failings in the East nonetheless went on a "long march through the institutions" of America, beginning with universities and ending with the takeover of elite businesses, media firms and the government. To illustrate this gradual "cultural revolution", Mr Rufo chooses four horsemen—the thinkers Herbert Marcuse, Angela Davis, Paolo Freire and Derrick Bell—and traces the impact of their ideas over time.

The research is meticulous, and the details are forensic. Many previous intellectual biographies of thinkers like Bell, a Harvard law professor who fathered the discipline of CRT, and Freire, a Brazilian education scholar who developed his influential "pedagogy of the oppressed", are written by smitten disciples and seemed

more like religious apologia than rigorous history. Mr Rufo's methodical recounting of their radical ideas—pushing to deconstruct the concept of merit, abolish prisons, dismantle capitalism and develop "revolutionary consciousness" in schoolchildren—is refreshingly sceptical. It is also difficult to dispute, given that the most incendiary points are usually delivered by quoting the thinkers directly.

The mostly restrained accounting, given Mr Rufo's reputation for stoking controversy, gives the entire work a cerebral feel. "The elements of critical race theory are, in fact, a near-perfect transposition of race onto the basic structures of Marxist theory," he writes. Through the recounted history, some worrying trends in American life make more sense. Universities are hiring based on applicants proffering the right answers to "diversity statements", and Californian pupils will be required from 2025 to take ethnic-studies courses that will help, in the state's words, "challenge racist, bigoted, discriminatory, and imperialist/colonial beliefs" and "connect ourselves to past and contemporary movements that struggle for social justice".

However, Mr Rufo's analysis, for all its merits, falters in two ways. The first is that it often skips over the most interesting phase of the process—the actual mutation of these ideas within the academy into something more virulent—in favour of minute details in the lives of his four appointed prophets. This is not a critical flaw.

But the second one is more serious. Mr Rufo often cannot help but portray the left's revolution as on the cusp of total victory, if not already there. "The corporation no longer exists to maximise profit, but to manage 'diversity and inclusion'. The state no longer exists to secure natural rights, but to achieve 'social justice'", he writes.

The takeover is hardly so complete. Companies are still plainly motivated by profit, and some are laying off the staff they had hired to oversee diversity-and-inclusion initiatives. Many Republican states are resisting the mandate of social justice and doing so in consultation with Mr Rufo himself. The fatalistic accounting of the takeover of the federal government—"the state, it turned out, was an easy capture...there was barely any resistance at all"—rests on a few questionable anti-racism trainings. It is hardly compelling. Much of the zealotry that ran wild after the murder of an unarmed black man, George Floyd, by police in 2020 has faded. Today Democrats pretend that some other party called for the defunding of the police.

The counter-revolution to America's cultural revolution that Mr Rufo explicitly calls for is already happening—and has been under way for years. He should know that, because he is, to appropriate the Leninist terminology, in the vanguard. ■

IT'S TIME TO UPDATE THE SYSTEM

1. European financial institutions are an essential part of the traditional financial system, but many rely on aging technology invented before the internet that isn't best serving them or their customers. Crypto can help make the system faster, safer, more transparent, and more equitable - for everyone.
2. A recent consumer survey suggests that the British people have made it clear they want an update. 22% of all adults in the UK hold some form of crypto, joining the ranks of over 400 million crypto users around the world - because it offers a real technological solution. If crypto users were a country, they would be the third largest nation by population in the world.
3. 66% of crypto users live in the developing world, often in places where the current system fails to meet their needs. Here in the UK, 1.3 million people are unbanked and can face high fees to use their own money. Crypto can offer people a cheaper, more efficient way to participate in the economy.
4. Crypto makes money portable - and much more accessible. At the beginning of the war in Ukraine, banks shut down and ATMs ran out of cash. With few ways to access crucial funds, Ukrainians turned to crypto to take back control of their financial freedom. Crypto is 24/7 and always with you.
5. Crypto remittances in the UK reached \$33 billion according to 2021 estimates from the World Bank, demonstrating the crucial importance of crypto technology and international transfers. Traditional financial services can be slow and expensive, while crypto transactions may offer a more efficient, transparent, and nearly instantaneous alternative.
6. Crypto isn't going anywhere. Widespread adoption has already begun, and the UK and the EU are quickly positioning themselves as industry leaders. Landmark regulations such as Markets in Crypto-Assets aim to create stable, healthy environments for important crypto innovation to flourish. This technology can help update aging financial infrastructure, giving customers more financial freedom and institutions new tools to drive innovation.

coinbase

coinbase.com/updatethesystem

Economic data

	Gross domestic product			Consumer prices			Unemployment rate		Current-account balance		Budget balance		Interest rates		Currency units	
	% change on year ago latest	quarter*	2023†	% change on year ago latest		2023†	%		% of GDP, 2023†	% of GDP, 2023†		10-yr govt bonds latest,%	change on year ago, bp	per \$ Jul 26th	% change on year ago	
United States	1.8	Q1	2.0	1.3	3.0	Jun	3.9	3.6	Jun	-2.9	-5.7	3.9	105	-	-	
China	6.3	Q2	3.2	5.5	nil	Jun	1.2	5.2	Jun‡	2.4	-3.0	2.5	§§	-7.0	7.15	
Japan	1.9	Q1	2.7	1.3	3.3	Jun	2.6	2.6	May	3.2	-5.8	0.5	23.0	140	-5.5	
Britain	0.2	Q1	0.6	0.3	7.9	Jun	6.7	4.0	Apr††	-3.3	-4.3	4.3	221	0.77	7.8	
Canada	2.2	Q1	3.1	1.2	2.8	Jun	3.5	5.4	Jun	-0.1	-1.0	3.5	65.0	1.32	-2.3	
Euro area	1.1	Q1	0.1	0.8	5.5	Jun	5.6	6.5	May	1.7	-3.3	2.4	150	0.90	10.0	
Austria	1.9	Q1	0.4‡	0.8	8.0	Jun	7.3	4.6	May	2.0	-2.4	3.1	159	0.90	10.0	
Belgium	1.3	Q1	1.5	0.8	4.2	Jun	3.6	5.7	May	-1.9	-4.4	3.1	155	0.90	10.0	
France	0.9	Q1	0.7	0.7	4.5	Jun	5.6	7.0	May	-1.7	-5.0	3.0	133	0.90	10.0	
Germany	-0.5	Q1	-1.3	-0.2	6.4	Jun	6.0	2.9	May	5.1	-2.3	2.4	150	0.90	10.0	
Greece	2.3	Q1	-0.3	2.0	1.8	Jun	3.9	10.8	May	-6.8	-2.3	3.8	79.0	0.90	10.0	
Italy	1.9	Q1	2.2	1.2	6.4	Jun	6.4	7.6	May	0.1	-4.7	4.1	75.0	0.90	10.0	
Netherlands	1.9	Q1	-1.3	0.9	5.7	Jun	5.2	3.5	Jun	6.5	-2.3	2.8	157	0.90	10.0	
Spain	3.8	Q1	2.4	2.0	1.9	Jun	3.2	12.7	May	1.5	-4.2	3.5	126	0.90	10.0	
Czech Republic	-0.2	Q1	-0.2	0.6	9.7	Jun	10.3	2.5	May‡	-1.9	-4.5	4.1	-31.0	21.7	11.7	
Denmark	1.9	Q1	2.3	0.5	2.5	Jun	5.0	2.8	May	9.8	0.7	2.7	150	6.74	9.1	
Norway	3.0	Q1	1.0	1.6	6.4	Jun	4.8	3.4	Apr††	17.6	12.5	1.4	76.0	10.1	-2.6	
Poland	-0.3	Q1	16.1	1.3	11.5	Jun	12.3	5.0	Jun§	-1.1	-4.9	5.5	-31.0	4.00	17.2	
Russia	-1.8	Q1	na	-1.6	3.2	Jun	6.0	3.2	May§	5.4	-4.2	11.2	234	90.0	-32.8	
Sweden	0.8	Q1	2.4	1.0	9.3	Jun	7.1	7.9	May§	4.2	-0.3	2.5	93.0	10.4	-1.4	
Switzerland	0.6	Q1	1.1	1.2	1.7	Jun	2.6	2.0	Jun	7.1	-0.7	0.9	30.0	0.86	11.6	
Turkey	4.0	Q1	1.3	3.3	38.2	Jun	44.3	8.8	May§	-5.4	-4.8	17.6	87.0	26.9	-33.7	
Australia	2.3	Q1	0.9	1.5	6.0	Q2	5.5	3.5	Jun	1.0	0.2	4.0	66.0	1.48	-2.7	
Hong Kong	2.7	Q1	23.0	3.5	1.9	Jun	2.3	2.9	Jun‡	6.1	-1.5	3.8	107	7.80	0.6	
India	6.1	Q1	5.3	6.2	4.8	Jun	5.3	8.1	Apr	-1.3	-5.7	7.1	-27.0	82.0	-2.7	
Indonesia	5.0	Q1	na	4.9	3.5	Jun	3.8	5.5	Q1§	0.9	-2.6	6.3	-118	15,018	-0.1	
Malaysia	5.6	Q1	na	3.9	2.4	Jun	2.7	3.5	May§	3.1	-5.0	3.9	-12.0	4.55	-2.0	
Pakistan	1.7	2023**	na	1.7	29.4	Jun	31.2	6.3	2021	-1.5	-7.0	16.0	†††	305	-18.8	
Philippines	6.4	Q1	4.5	5.3	5.4	Jun	5.7	4.5	Q2§	-5.3	-6.3	6.5	-28.0	54.6	1.3	
Singapore	0.7	Q2	1.1	1.0	4.5	Jun	5.0	1.9	Q2	16.3	-0.7	3.0	29.0	1.33	4.5	
South Korea	0.8	Q2	2.4	1.3	2.7	Jun	3.0	2.7	Jun§	1.9	-2.4	3.7	48.0	1,275	2.6	
Taiwan	-2.9	Q1	-2.4	0.6	1.8	Jun	2.0	3.5	Jun	12.5	-0.9	1.2	-5.0	31.3	-4.3	
Thailand	2.7	Q1	7.8	3.2	0.2	Jun	1.8	1.3	May§	1.3	-2.7	2.8	35.0	34.3	7.1	
Argentina	1.3	Q1	2.7	-3.0	116	Jun	116.3	6.9	Q1§	-2.6	-4.5	na	na	272	-52.0	
Brazil	4.0	Q1	8.0	2.4	3.2	Jun	4.8	8.3	May§‡‡	-1.9	-7.5	10.8	-257	4.73	13.1	
Chile	-0.6	Q1	3.4	0.1	7.6	Jun	7.7	8.5	May§‡‡	-3.6	-1.9	5.4	-132	826	11.2	
Colombia	3.0	Q1	5.9	1.6	12.1	Jun	11.5	10.5	May§	-4.0	-4.2	10.2	-268	3,940	12.9	
Mexico	3.7	Q1	4.1	2.4	5.1	Jun	5.0	3.0	May	-1.9	-3.5	8.8	1.0	16.8	21.4	
Peru	-0.4	Q1	-2.2	1.5	6.5	Jun	6.5	6.0	Jun§	-1.6	-2.0	6.8	-151	3.60	8.9	
Egypt	3.9	Q1	na	3.8	35.8	Jun	33.0	7.1	Q1§	-1.0	-6.4	na	na	30.9	-38.6	
Israel	3.8	Q1	3.2	3.0	4.2	Jun	4.1	3.6	Jun	4.7	-2.0	3.9	131	3.69	-6.5	
Saudi Arabia	8.7	2022	na	1.0	2.7	Jun	2.2	5.1	Q1	3.2	-1.4	na	na	3.75	0.3	
South Africa	0.2	Q1	1.4	0.5	5.7	Jun	5.7	32.9	Q1§	-1.8	-5.7	10.3	-42.0	17.7	-4.2	

Source: Haver Analytics. *% change on previous quarter, annual rate. †The Economist Intelligence Unit estimate/forecast. §Not seasonally adjusted. ‡New series. **Year ending June. ††Latest 3 months. ‡‡3-month moving average. §§5-year yield. †††Dollar-denominated bonds.

Markets

In local currency	% change on:			index Jul 26th	% change on:			index Jul 26th	% change on:		
	one week	Dec 30th 2022	Dec 30th 2022		one week	Dec 30th 2022	month		one week	Dec 30th 2022	year
United States S&P 500	4,566.8	nil	18.9								
United States NAScomp	14,127.3	-1.6	35.0								
China Shanghai Comp	3,223.0	0.8	4.3								
China Shenzhen Comp	2,037.5	nil	3.1								
Japan Nikkei 225	32,668.3	-0.7	25.2								
Japan Topix	2,283.1	0.2	20.7								
Britain FTSE 100	7,676.9	1.2	3.0								
Canada S&P TSX	20,561.6	0.3	6.1								
Euro area EURO STOXX 50	4,346.2	-0.4	14.6								
France CAC 40	7,315.1	-0.2	13.0								
Germany DAX*	16,131.5	0.1	15.9								
Italy FTSE/MIB	28,980.5	0.9	22.2								
Netherlands AEX	775.5	0.1	12.5								
Spain IBEX 35	9,600.5	1.6	16.7								
Poland WIG	71,385.6	-0.3	24.2								
Russia RTS, \$ terms	1,038.7	2.3	7.0								
Switzerland SMI	11,183.6	0.6	4.2								
Turkey BIST	6,743.9	2.6	22.4								
Australia All Ord.	7,617.8	1.1	5.5								
Hong Kong Hang Seng	19,365.1	2.2	-2.1								
India BSE	66,707.2	-0.6	9.6								
Indonesia IDX	6,948.3	1.7	1.4								
Malaysia KLSE	1,449.3	3.3	-3.1								
US corporate bonds, spread over Treasuries											
Basis points								Dec 30th 2022			
Investment grade					138		154				
High-yield					430		502				
Sources: Bloomberg; CME Group; Cotlook; Refinitiv Datastream; Fastmarkets; FT; ICCO; ICO; ISO; Live Rice Index; LME; NZ Wool Services; Thompson Lloyd & Ewart; Urner Barry; WSJ. *Provisional.											
For more countries and additional data, visit economist.com/economic-and-financial-indicators											

Commodities

The Economist commodity-price index	2015=100	Jul 18th	Jul 25th*	month	year
Dollar Index					
All items	147.5	151.9	3.1	-0.3	
Food	135.7	143.8	3.2	3.2	
Industrials					
All	158.6	159.5	3.1	-3.0	
Non-food agriculturals	111.9	112.9	2.5	-26.3	
Metals	172.4	173.3	3.2	3.3	
Sterling Index					
All items	172.1	180.4	2.2	-6.5	
Euro Index					
All items	145.6	152.6	2.2	-8.5	
Gold					
\$ per oz	1,982.8	1,962.0	2.5	14.1	
Brent					
\$ per barrel	79.6	83.7	15.8	-19.8	
Sources: Bloomberg; CME Group; Cotlook; Refinitiv Datastream; Fastmarkets; FT; ICCO; ICO; ISO; Live Rice Index; LME; NZ Wool Services; Thompson Lloyd & Ewart; Urner Barry; WSJ. *Provisional.					
For more countries and additional data, visit economist.com/economic-and-financial-indicators					

→ Most shelters that China has built to protect aircraft since 2012 are located far from Taiwan



*American, Japanese and Filipino bases within 1,000km of Taiwan, and bases known to host American bombers that can reach Taiwan
†Bases not included Sources: Thomas Shugart, 2023; Google Earth

Gimme shelter

Data on air bases suggest a Chinese attack on Taiwan may not be imminent

NO ONE SAVE Xi Jinping, China's president, knows for certain whether he plans to invade Taiwan. The government's rhetoric, which calls for "peaceful reunification" but does not rule out force, is meticulously vague. But military investments may offer clues about his intentions.

Since Mr Xi became president ten years ago, China's defence spending after adjusting for military-cost inflation has risen by 39%. But new data on air bases imply that war over Taiwan is just one of numerous Chinese military priorities. Since 2013 China has built fortified shelters for planes in almost every logical area—except those near Taiwan. Unfortunately for Taiwan, America's efforts to protect its own bases near the island have been lacklustre.

War planners reckon that even amid a conflict, military aircraft spend only one-third of their time flying. While parked, a

plane's stealth and speed count for nought. In some war games simulating a Chinese invasion of Taiwan, 90% of American aircraft losses occur on the ground.

Spreading out planes across bases limits vulnerability. But parked planes can be shielded from attacks that evade air defences only in robust buildings that absorb incoming fire, called hardened aircraft shelters (HAS). Although HAS do not offer full protection, they reduce damage and make enemies use extra munitions. And the closer air bases with HAS are to combat zones, the less time protected planes lose in transit. Thomas Shugart of the Centre for a New American Security, a think-tank, has compiled a record of the sites of Asian airports used by air forces, and the number of shelters and runways at each one.

Overall, China has been improving its preparations for a potential air war. In 2012 Taiwan had 306 HAS, more than China's 297. Since then China has built 380 more. America has just 15 HAS within 1,000km (620 miles) of Taiwan, where the risk of attack is most acute, all of them in Okinawa.

However, the locations of China's new HAS should let Taiwan breathe easier. In 2012, 70% of China's HAS were within 500km of Taiwan. Of those built later, just

9% are. Most new sites sit along China's borders and in its populous east and south. Construction of air bases lacking HAS, which still provide extra runways and can hide planes' locations, has also clustered in these areas. This makes sense for a modernising air force facing a range of threats—not for one focusing mainly on Taiwan. China's fastest jets take 90 minutes to fly from Beijing to the Taiwan Strait.

Mr Shugart's tally may not be complete. China also has bases underground, though such shelters can be vulnerable to bunker-busting bombs and cruise missiles. Moreover, if China plans to rely on missiles rather than planes, it may think it has enough HAS near Taiwan already. In war games, however, America sometimes makes destroying Chinese air power a top priority.

As for America, failing to protect \$100m jets with relatively cheap HAS, which are especially useful against the cluster munitions that China stockpiles, seems curious. Analysts have long called for new HAS. But those wanting to pour concrete abroad are up against constituencies that would rather improve bases at home or buy more kit.

America can only guess at China's plans. Leaving its planes exposed could prove costly if it guesses wrong. ■



The last Romantic

André Watts, a black star of classical piano, died on July 12th, aged 77

THE CONCERT piece, Franz Liszt's E-flat Concerto, opened with a bracing call and response: a seven-note motif from the strings, answered by a rousing clarion from the horns and woodwinds. Then the same again, the strings pitched a bit lower and the winds higher: a call to action. The pianist took it up. The orchestra responded, and a chase began: for the next 20 minutes the pianist played sweeping flights that sounded like improvisations, using almost the entire keyboard. The orchestra doing the chasing on January 12th 1963 was the New York Philharmonic under Leonard Bernstein, then perhaps the most celebrated conductor in the world. The pianist was André Watts. Blade-thin and straight-backed, he played with burning-eyed fluency, every inch the Romantic hero. He was 16.

The call had come to his parents' house in Philadelphia only two days before. The pianist who was billed to play, Glenn Gould, was ill. Could André replace him? Of course he could. He surmised later that the manager and conductor had said to each other, "Remember that kid?" The one who had already won an audition to play for Bernstein's nationally televised Young People's Concerts, even though his practice had been on a rickety old piano with 26 strings missing.

The effect of that January concert was electric. He went from having no concerts booked, to 75 in a year. At 17 he won his first Grammy, for most promising new classical recording artist. Young as he was, he was now firmly launched on a career largely devoted to the Romantic repertoire. He emerged onto the world stage as one of the very few African-American classical-music headliners.

Inevitably his colour was noted. At that famous concert Bernstein told the audience he looked rather like a young Persian prince, and commented on his "mixed-up name". The allusion was to his mixed-race parentage: his father was an African-American soldier stationed in West Germany after the second world

war, his mother a Hungarian refugee. In 1971 the *New York Times* described him as "capable of appearing as variously as an austere mulatto...a wistful pa'san surveying some Mediterranean terrace, or a bookish adolescent confronting his bar mitzvah". People kept asking whether he played jazz.

All this he took in his stride. Colour was just a physical description that could soon be dismissed. The simple fact was that he was half-black and half-white, a position he liked: it meant he could take potshots at both sides. His formative influences, in any case, were European. After his parents divorced when he was 13, his mother brought him up. His earliest memory was of her playing Strauss waltzes on the piano in their apartment in Ulm, in Baden Württemberg. In Philadelphia, his home from the age of eight, she was the one who insisted that he should learn to play music, just as he should learn to read and write.

Violin was his first instrument, but whenever he played the family dog would sit beside him, baying at the moon. So he switched to piano, and for a year did just what he liked on it. He would hold down the pedal for pages, feeling the immense sounds mushrooming all round him. Love of that sound lasted. When he started proper lessons his mother encouraged him to practise, which he disliked, and she travelled to concerts with him until he was 21. He, in turn, was solicitous of her: dining out with her when he was 25, he graciously accepted a bottle of champagne from the restaurant, explaining that she only drank Taittinger.

He stayed devoted all his life to the drive and showmanship of Liszt, revelling in the way the great composer wore his virtuosity with a bit of a smile, as if saying, "Isn't it interesting to see me on this high wire?" All the same, he disapproved of the way some pianists played him, slamming their feet down, clipping the corners. The Hungarian Rhapsodies had to be approached as respectfully as a Mozart concerto; stripped of cliché and sloppiness, it was amazing what you could hear in them.

In these explorations, he needed to feel an audience was with him. Though he made many recordings, playing music without live listeners had a chilly sort of sterility. He wanted to transmit his personal response to the music readily and freely, without hiding anything of himself. The composer he felt closest to was Franz Schubert, because of his clarity and openness. "Guileless" was the word that struck him—all feelings exposed in a sacred space.

Before music, he was always humble. He wanted to compose his own, but put no notes on paper. Perhaps, he thought, he did not really have anything to say. He found interviews awkward, because he was so intent on his search for the precise word. And he disliked vaunting himself. Even as a child, when at nine he performed with the Philadelphia Orchestra, he did not suppose he was better than any of the other children who played. And, as a perfectionist, he feared he might get too frustrated with composition. In a musical career, there was always another level to strive for. But as soon as you reached that, there was yet another.

Instead he preferred to settle into learning from the masters, especially from Leon Fleischer, his chief teacher. The hardest part of playing music, he thought, was to preserve a balance between being the star who strode onstage, proclaiming to the audience that he would give them something worthwhile, and the man who felt he was nothing but an idiot who didn't know what he was doing. Fleischer taught him how to manage that. He also learned how to defy the tendonitis that assailed him as he got older. When nerve damage limited the use of his left hand, he simply transcribed Ravel's "Concerto for the Left Hand" for the right one.

That entailed more than just sliding a bit to the left on a piano bench; it involved re-engineering a hugely challenging piece. But his version worked, and he was surprised by its power, which seemed to come from learning it so late in life. When he came to play it, with the Detroit and Atlanta orchestras, it was an act of daring; and no less so than playing Liszt on national television, with the world's most famous conductor, when he was just a boy. ■

Reap the benefits of effective business communication

Empower your team to write with clarity and concision

From reports and memos to presentations and social-media posts, compelling communication can bring your organisation to life.

Benefit from a tailored approach and group offers on our executive-education course.



Find out more about team learning at:
economist.com/course-writing

**ECONOMIST
EDUCATION**



"I HUMBLY SEARCH FOR
THE TRUE, THE GOOD,
THE BEAUTIFUL."

YIQING YIN,
HAUTE COUTURE CREATOR, WEARS THE
VACHERON CONSTANTIN PATRIMONY.

VACHERON CONSTANTIN
GENÈVE

ONE OF
NOT MANY.