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The Economist

White-nationalist terrorism

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Buzzing off: are insects going extinct?

MARCH 23RD-29TH 2019

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Europe takes on the tech giants

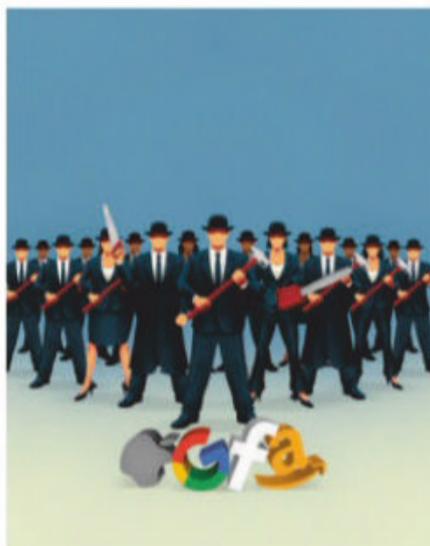


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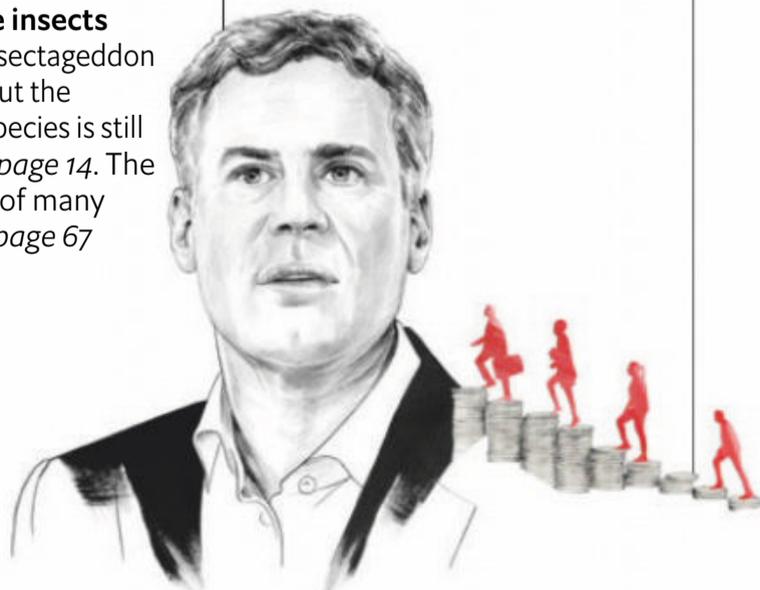
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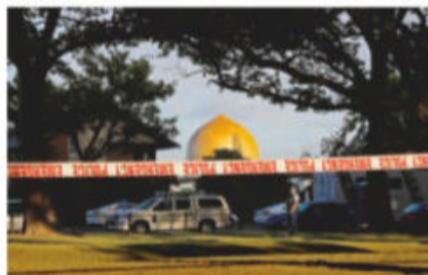
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A gunman killed 50 worshippers at two **mosques** in Christchurch, streaming part of the atrocity live on Facebook. The attacker, an Australian who had been living in New Zealand for two years, was motivated by fears that immigration was threatening “white” culture. The government vowed to tighten gun-control laws and monitor right-wing extremists more carefully.

Nursultan Nazarbayev, **Kazakhstan’s** strongman president of 30 years, resigned abruptly. He retains considerable influence; his daughter is

the new chairman of the Senate and the constitution gives him lifetime immunity from prosecution. The capital, Astana, is to be renamed Nursultan after him.

Tsai Ing-wen, **Taiwan’s** president, was challenged for her party’s nomination in next year’s presidential election by Lai Ching-te, a former prime minister. No sitting Taiwanese president has faced a primary before.

The **Philippines** withdrew from the International Criminal Court. Rodrigo Duterte, the country’s president, initiated the move a year ago after the court began probing his campaign to encourage police to shoot suspected drug dealers.

China’s president, Xi Jinping, told a meeting of educators that training people to support the Communist Party should begin when they are toddlers. He said teachers must “con-

front all kinds of wrong opinions”—an apparent reference to Western ideas.

In a “white paper”, the Chinese government said that since 2014 it had destroyed 1,588 terrorist gangs, arrested 12,995 terrorists and punished 30,645 people for “illegal religious activities” in the far western region of **Xinjiang**. Human-rights groups say about 1m people in Xinjiang, mostly Muslim Uighurs, have been locked up for signs of extremism, such as having big beards or praying too much.

The protection racket

Benny Gantz, the main challenger to **Binyamin Netanyahu**, the prime minister, in Israel’s forthcoming election, dismissed reports that his phone had been hacked by Iran and that he was vulnerable to blackmail. Some in Mr Gantz’s party blamed Mr Netanyahu for leaking the story. He denied

this and asked: “If Gantz can’t protect his phone, how will he protect the country?”

For the third week in a row **Algeria** was rocked by mass protests against Abdelaziz Bouteflika, the ailing president. Mr Bouteflika insists on staging a national conference and approving a new constitution before holding an election, in which he would not run. But a new group led by politicians and opposition figures called on him to step down immediately. The army appeared to be distancing itself from the president.

More than 1,000 people may have been killed when a cyclone hit **Mozambique**, causing floods around the city of Beira. The storm also battered Malawi and Zimbabwe.

Amnesty International said that 14 civilians were killed during five air strikes by American military forces in



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► **Somalia.** AFRICOM, America's military command for Africa, said no civilians had been killed in the strikes.

A special relationship



Jair Bolsonaro, **Brazil's** populist president, visited Donald Trump at the White House. Mr Bolsonaro has been described as the "Trump of the Tropics" for his delight in offending people. The pair got on well. Mr Trump said he wanted to make Brazil an official ally, which would grant it preferential access to American military technology.

Supporters of Juan Guaidó, the man recognised as the rightful president of **Venezuela** by over 50 countries, said they now controlled three of the country's diplomatic buildings in the United States, including the consulate in New York.

A judge in **Guatemala** ordered the arrest of Thelma Aldana, a candidate in the forthcoming presidential election, on charges of fraud, which she denies. Ms Aldana, a former attorney-general, worked closely with a UN-backed commission investigating corruption. Guatemala withdrew its support from that body after it turned its sights on the president, Jimmy Morales.

Canada's top civil servant resigned over his entanglement in a scandal in which political pressure was allegedly exerted on the then attorney-general to drop the prosecution of an engineering firm accused of bribery in Libya. He

is the fourth person to resign over the matter, which has tarnished Justin Trudeau, the Liberal prime minister.

Speaker's truth to power

Citing a convention dating back to 1604, John Bercow, the Speaker of Britain's House of Commons, intervened in the **Brexit** process, again, ruling out a third vote on the withdrawal deal unless there was a change in substance to its terms. Parliament therefore could not have another "meaningful vote" on leaving the European Union before this week's European Council meeting, where Brexit is on the agenda. Theresa May asked the council for a three-month extension of the Brexit deadline, to June 30th.

The **European People's Party**, a grouping of centre-right parties at the European Parliament, voted to suspend Fidesz, Hungary's ruling party, as a

protest against what many in the parliament believe are repeated attempts by the government to undermine the rule of law.

Zuzana Caputova, a political novice, came top in the first round of **Slovakia's** presidential election. Disgust at official corruption, and the murder last year of a young journalist who was investigating it, fuelled her victory.

He could get used to this

Donald Trump **vetoed** the first bill of his presidency, a resolution from Congress to overturn his declaration of a national emergency on the border with Mexico. The resolution had passed with some support from Republicans, worried about the precedent Mr Trump is setting for future presidents, who might also declare an emergency to obtain funding for a project that Congress has denied them.

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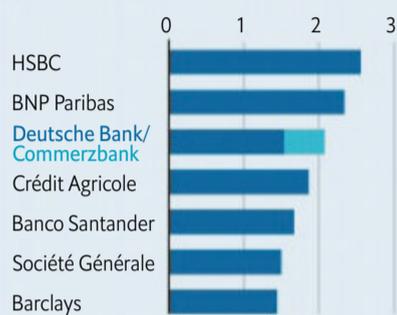
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The Federal Reserve left **interest rates** unchanged, and suggested it would not raise them at all this year (in December the Fed indicated rates might be lifted twice in 2019). It is also to slow the pace at which it shrinks its portfolio of Treasury holdings from May, and stop reducing its balance-sheet in September.

Europe's biggest banks

By assets, end 2018, \$trn



Source: Bloomberg

After months of speculation, **Deutsche Bank** and **Commerzbank** said they would explore a merger. A combined entity would be Europe's third-biggest bank and hold about one-fifth of German deposits. The German government is thought to favour a tie-up between the Frankfurt neighbours. A deal faces many hurdles, not least from unions opposed to the potential 30,000 job losses.

In one of the biggest deals to take place in the financial-services industry since the end of the financial crisis, **Fidelity National Information Services**, a fintech company, offered to buy **Worldpay**, a payment-processor, in a \$43bn transaction. It is the latest in a string of acquisitions in the rapidly consolidating payments industry amid a shift to cashless transactions.

Lyft gave an indicative price range for its forthcoming IPO of up to \$68 a share, which would value it at \$23bn and make it one of the biggest tech flotations in recent years. Uber, Lyft's larger rival, is expected to soon launch its IPO.

Bayer's share price swooned, after another jury found that someone's cancer had developed through exposure to a

weedkiller made by Monsanto, which Bayer acquired last year. The German drugs and chemicals company has been under the spotlight since August, when a jury reached a similar verdict in a separate case.

Brother, can you spare a dime?

Anil Ambani avoided a three-month prison sentence when his brother, Mukesh, stepped in at the last minute to help pay the \$77m that a court ordered was owed to Ericsson for work it did at Anil's now-bankrupt telecoms firm. Anil Ambani, who was once ranked the world's sixth-richest man, said he was "touched" by his brother's gesture.

AB InBev shook up its board, appointing a new chairman and replacing directors. The changes are meant to reassure investors that the brewer intends to revitalise its drooping share price and pay down the \$103bn in net debt it accumulated in a spree of acquisitions. They also reduce the influence of 3G Capital, a private-equity firm that helped create AB InBev via several mergers. 3G's strategy has been called into question by mounting problems at Kraft Heinz, another corporate titan it helped bring about.

The White House nominated Steve Dickson, a former executive at Delta Air Lines, to lead the **Federal Aviation Administration**. The FAA is under pressure to explain its procedures for certifying Boeing's 737 MAX 8, which has crashed twice within five months, killing hundreds of people. It has not had a permanent head since early 2018, in part because Donald Trump had mooted giving the job to his personal pilot.

BMW said it expects annual profit this year to come in "well below" last year's. Like others in the industry, the German carmaker is forking out for the technologies that are driving the transition to electric and self-driving vehicles; it unveiled a strategy this week to reduce its overheads.

Talks on resolving the **trade dispute** between America and China were set to resume, with the aim of signing a deal in late April. Senior American officials including Steven Mnuchin, the treasury secretary, are preparing to travel to Beijing for negotiations, followed by a reciprocal visit from a Chinese delegation led by Liu He, a vice-premier, to Washington. One of the sticking points is a timetable for unravelling the

tariffs on goods that each side has imposed on the other.

Tariffs imposed by the EU, China and others on **American whiskey** led to a sharp drop in exports in the second half of 2018, according to the Distilled Spirits Council. For the whole year exports rose by 5.1% to \$1.2bn, a sharp drop from 2017.

The European Commission slapped another antitrust fine on **Google**, this time for restricting rival advertisers on third-party websites. The €1.5bn (\$1.7bn) penalty is the third the commission has levied on the internet giant within two years, bringing the total to €8.3bn.

Tunnel vision

Industrial action by French customs staff caused **Eurostar** to cancel trains on its London-Paris route. The workers want better pay, and also more people to check British passports after Brexit. A study by the British government has found that queues for the service could stretch for a mile if there is a no-deal Brexit, as Brits wait to get their new blue passports checked. Passengers got a taste of that this week, standing in line for up to five hours because of the go-slow.





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Europe takes on the tech giants

To understand the future of Silicon Valley, cross the Atlantic

“THE BIRTHDAY of a new world is at hand.” Ever since Thomas Paine penned those words in 1776, America has seen itself as the land of the new—and Europe as a continent stuck in the past. Nowhere is that truer than in the tech industry. America is home to 15 of the world’s 20 most valuable tech firms; Europe has one. Silicon Valley is where the brainiest ideas meet the smartest money. America is also where the debate rages loudly over how to tame the tech giants, so that they act in the public interest. Tech tycoons face roastings by Congress for their firms’ privacy lapses. Elizabeth Warren, a senator who is running for president in 2020, wants Facebook to be broken up.

Yet if you want to understand where the world’s most powerful industry is heading, look not to Washington and California, but to Brussels and Berlin. In an inversion of the rule of thumb, while America dithers the European Union is acting. This week Google was fined \$1.7bn for strangling competition in the advertising market. Europe could soon pass new digital copyright laws. Spotify has complained to the EU about Apple’s alleged antitrust abuses. And, as our briefing explains, the EU is pioneering a distinct tech doctrine that aims to give individuals control over their own information and the profits from it, and to prise open tech firms to competition. If the doctrine works, it could benefit millions of users, boost the economy and constrain tech giants that have gathered immense power without a commensurate sense of responsibility.

Western regulators have had showdowns over antitrust with tech firms before, including IBM in the 1960s and Microsoft in the 1990s. But today’s giants are accused not just of capturing huge rents and stifling competition, but also of worse sins, such as destabilising democracy (through misinformation) and abusing individual rights (by invading privacy). As AI takes off, demand for information is exploding, making data a new and valuable resource. Yet vital questions remain: who controls the data? How should the profits be distributed? The only thing almost everyone can agree on is that the person deciding cannot be Mark Zuckerberg, Facebook’s scandal-swamped boss.

The idea of the EU taking the lead on these questions will seem bizarre to many executives who view it as an entrepreneurial wasteland and the spiritual home of bureaucracy. In fact, Europe has clout and new ideas. The big five tech giants, Alphabet, Amazon, Apple, Facebook and Microsoft, make on average a quarter of their sales there. And as the world’s biggest economic bloc, the EU’s standards are often copied in the emerging world. Europe’s experience of dictatorship makes it vigilant about privacy. Its regulators are less captured by lobbying than America’s and its courts have a more up-to-date view of the economy. Europe’s lack of tech firms helps it take a more objective stance.

A key part of Europe’s approach is deciding what not to do. For now it has dismissed the option of capping tech firms’ profits and regulating them like utilities, which would make them stodgy, permanent monopolies. It has also rejected break-ups: thanks to network effects, one of the Facebabies or Googlettes might simply become dominant again. Instead the EU’s doctrine

marries two approaches. One draws on its members’ cultures, which, for all their differences, tend to protect individual privacy. The other uses the EU’s legal powers to boost competition.

The first leads to the assertion that you have sovereignty over data about you: you should have the right to access them, amend them and determine who can use them. This is the essence of the General Data Protection Regulation (GDPR), whose principles are already being copied by many countries across the world. The next step is to allow interoperability between services, so that users can easily switch between providers, shifting to firms that offer better financial terms or treat customers more ethically. (Imagine if you could move all your friends and posts to Acebook, a firm with higher privacy standards than Facebook and which gave you a cut of its advertising revenues.) One model is a scheme in Britain called Open Banking, which lets bank customers share their data on their spending habits, regular payments and so on with other providers. A new report for Britain’s government says that tech firms must open up in the same way.

Europe’s second principle is that firms cannot lock out competition. That means equal treatment for rivals who use their platforms. The EU has blocked Google from competing unfairly with shopping sites that appear in its search results or with rival browsers that use its Android operating system. A German proposal says that a dominant firm must share bulk, anonymised data with competitors, so that the economy can function properly instead of being ruled by a few data-hoarding giants. (For example, all transport firms should have access to Uber’s information about traffic patterns.) Germany has changed its laws to stop tech giants buying up scores of startups that might one day pose a threat.

Europe’s approach offers a new vision, in which consumers control their privacy and how their data are monetised. Their ability to switch creates competition that should boost choice and raise standards. The result should be an economy in which consumers are king and information and power are dispersed. It would be less cosy for the tech giants. They might have to offer a slice of their profits (the big five made \$150bn last year) to their users, invest more or lose market share.

The European approach has risks. It may prove hard to achieve true interoperability between firms. So far, GDPR has proved clunky. The open flow of data should not cut across the concern for privacy. Here Europe’s bureaucrats will have to rely on entrepreneurs, many of them American, to come up with answers. The other big risk is that Europe’s approach is not adopted elsewhere, and the continent becomes a tech Galapagos, cut off from the mainstream. But the big firms will be loth to split their businesses into two continental silos. And there are signs that America is turning more European on tech: California has adopted a law that is similar to GDPR. Europe is edging towards cracking the big-tech puzzle in a way that empowers consumers, not the state or secretive monopolies. If it finds the answer, Americans should not hesitate to copy it—even if that means looking to the lands their ancestors left behind. ■



The \$100bn bet

Too close to the Son

Masayoshi Son's Vision Fund has reinvented investing—and become a giant governance headache

ALMOST TWO years ago Masayoshi Son, a Japanese tycoon, broke all the rules of investing by setting up a new vehicle to back tech firms. The Vision Fund was unusual in several ways. Worth \$100bn, it was enormous. Some \$45bn of that came from Muhammad bin Salman, Saudi Arabia's crown prince, who got the kingdom's sovereign wealth fund to contribute. It took huge bets on trendy "unicorns"—unlisted firms worth over a billion dollars, such as Uber. And it gave almost total control to Mr Son.

Many sceptics dismissed the Vision Fund as a vast pot of tainted money squandered on hyped-up assets. And by October last year it looked as if they were right. The murder of Jamal Khashoggi, a journalist, cast Saudi Arabia and the fund into disrepute, while the shares of tech firms started to tank.

Now, however, the Masa show is back on the road. The Khashoggi affair has receded and technology stocks have recovered. Several of the Vision Fund's biggest investments are due to float on the stockmarket at racy prices. And Mr Son plans to raise as much as \$100bn, for the Vision Fund 2 (see Business section). He will soon do the rounds of the world's sovereign-wealth funds and pension giants, touting robots and artificial intelligence—and, once again, his own magic touch.

These custodians of other people's money should be on their guard. Mr Son's relations with Saudi Arabia's Public Investment Fund (PIF), which provided the \$45bn, are reportedly strained. The reason is not the Khashoggi murder but the PIF's (privately expressed) dismay about the Vision Fund's governance.

Looking in from the outside, the first problem is "key-man risk". As with Prince Muhammad's reign, Mr Son's rule at the fund is absolute. If he views a startup as sufficiently world-changing, next to nothing will stop him betting big. His is by far the strongest voice on the Vision Fund's three-member investment committee, which has the final say on what is bought. That is because the other two members are his employees. The PIF can

veto investments only if they are for over \$3bn.

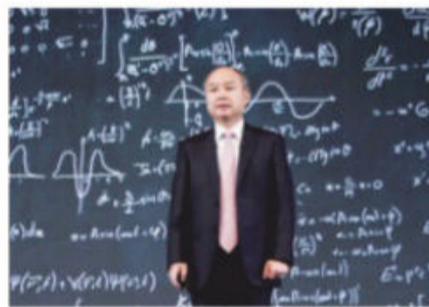
The second worry is the potential for conflicts of interest between the Vision Fund and SoftBank, a giant conglomerate listed in Japan that Mr Son founded and still runs. In deals where the Vision Fund's investment process takes too long, Mr Son has in the past used SoftBank's balance-sheet to buy stakes in young companies which are in turn transferred to the Vision Fund. Often SoftBank makes a profit, as with Didi, a Chinese ride-sharing company, which it bought for \$5.9bn in 2017 and will soon transfer to the Vision Fund for \$6.8bn. Very occasionally SoftBank makes a loss.

SoftBank and the Vision Fund obey rules on investing and their fiduciary duties. The fund uses independent valuers, including big audit firms. And SoftBank has a big direct stake in the Vision Fund and thus an incentive to see it prosper. Nonetheless SoftBank has too much scope to manoeuvre unlisted investments in high-growth but loss-making firms. Worse is the scant disclosure on how investments are valued, or how much cash the Vision Fund's firms are burning up.

You do not need artificial intelligence to conclude that Vision Funds 1 and 2 need better governance. Both need independent boards. Bringing in a heavyweight technology executive to test Mr Son's convictions would lessen the risk of dud deals. Transfers between SoftBank and the Vision Funds should stop. Investors must be told how positions are valued.

The Vision Fund needs transparency

Mr Son's empire has become too big to get by with patchy, amateur governance. It has about \$300bn of equity and debt, and stakes in 70 or so prominent startups which could be damaged if one of their leading sponsors blows up. When Mr Son comes asking for more money, investors should make it clear that the time has come for his style to change. ■



The Christchurch mosque massacre

The new face of terror, much like the old

Violent white nationalists increasingly resemble the jihadists they hate. They should be treated the same

AFANATIC WALKED into a house of worship and opened fire. Men, women, children; he made no distinction. Brenton Tarrant showed no mercy because he did not see his victims as fully human. When he murdered 50 people, he did not see mothers, husbands, engineers or goalkeepers. He saw only the enemy.

The massacre in New Zealand on March 15th was a reminder of how similar white-nationalist and jihadist killers really are. Though the two groups detest each other, they share methods, morals and mindsets. They see their own group as under threat, and think this justifies extreme violence in "self-defence". They are often radicalised on social media, where they tap into a

multinational subculture of resentment. Islamists share footage of atrocities against Muslims in Myanmar, Syria, Xinjiang and Abu Ghraib. White nationalists share tales of crimes against white people in New York, Rotherham and Bali. The alleged shooter in New Zealand, who is Australian, scrawled on a gun the name of an 11-year-old Swedish girl killed by a jihadist in 2017.

It takes a vast leap of illogic to conclude that the murder of a young girl in Stockholm justifies the murder of Muslim children 17,500km away. But when extremists meet in the dark corners of the web, they inspire each other to greater heights of paranoia and self-righteousness. Their enemies want to destroy their peo- ▶▶

► ple and their faith. It is a fight for survival. Apparently unconnected outrages are part of a global plot which, after great contortion, both jihadists and neo-Nazis often blame on the Jews.

Worldwide, jihadists kill many more people than white supremacists do. However, in the West, white-nationalist violence is catching up with the jihadist variety and has in some places overtaken it (see International section). The numbers are hard to pin down, but there is cause for alarm. By one estimate, between 2009 and 2018 white supremacists killed more than three-quarters of the 313 people murdered by extremists in America. Far-right networks with violent ambitions have been uncovered in the German army. The West has no white-nationalist equivalent of Islamic State, but plenty of angry racists there have access to guns. And recent events have fired them up. The Syrian refugee crisis, for example, created vivid images of Muslims surging into Europe, fuelling the fears of those who fret that non-whites are outbreeding whites and will one day “replace” them in their ancestral homelands.

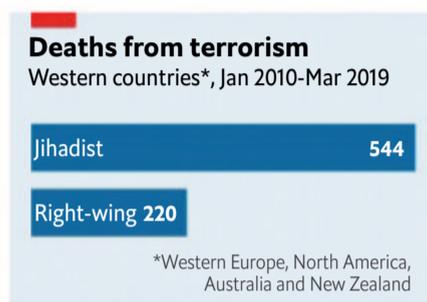
Yet there is hope. Another reason the white racist threat looms relatively larger is that the West has grown better at thwarting the jihadist one. Since the attacks of September 11th 2001, security services have put huge efforts into infiltrating jihadist groups both in person and online, eavesdropping on their conversations and taking down their propaganda. Since jihadism crosses borders, intelligence services have also shared information and worked hand in hand to disrupt plots. Governments have strengthened the defences of obvious targets, starting with airline cockpits. They have foiled dozens of plots and jailed hundreds of jihadists. They have also worked to deradicalise extremists, or to prevent them from taking up arms.

All these methods should be used against violent white nationalists, too. More cash will be needed. It is absurd, for exam-

ple, that America’s Department of Homeland Security has no experts in far-right terrorism. But even with ample funds, the task will not be easy. People who post racist diatribes online often pretend that they are joking. Spotting potential killers among the much larger number of poison-pontificators is hard. So is finding the right people to deradicalise the far right. Would-be jihadists can sometimes be talked out of it by moderate imams, who ground their arguments in texts that both parties revere. This is trickier with neo-Nazis, but a mix of public ostracism and patient counselling can work.

Sensitivity is essential. Lots of non-violent people share at least some of the extremists’ concerns, albeit in milder form. And just as the struggle against jihadism must be calibrated so as not to pick on peaceful Muslims—or create that sense—so the struggle against white extremism should avoid alienating peaceful whites who happen to oppose immigration or who occasionally say obnoxious things online.

It is an explosive problem, and one that would be easier to deal with if prominent politicians stopped throwing lighted matches at it. When President Donald Trump calls the flow of immigrants an “invasion”, he lends cover to those who would repel them violently. Likewise Viktor Orbán, Hungary’s prime minister, when he claims that a Jewish billionaire is plotting to flood Europe with Muslim migrants in order to swamp its Christian culture. And so too Turkey’s strongman, President Recep Tayyip Erdoğan, when he says that the shooter in New Zealand is part of a grand plot against Turks. By contrast, New Zealand’s prime minister, Jacinda Ardern, has struck the right note. She donned a headscarf, to show that an attack on Muslims is an attack on all New Zealanders. She is tightening the country’s gun controls. She has shown how an assault on New Zealand’s values of tolerance and openness is in fact a reason to strengthen them. ■



Women and economics

Market power

How the economics profession should fix its gender problem

AT THE HEART of economics is a belief in the virtues of open competition as a way of using the resources you have in the most efficient way you can. Thanks to the power of that insight, economists routinely tell politicians how to run public policy and business people how to run their firms. Yet when it comes to its own house, academic economics could do more to observe the standards it applies to the rest of the world. In particular, it recruits too few women. Also, many of those who do work in the profession say they are treated unfairly and that their talents are not fully realised. As a result, economics has fewer good ideas than it should and suffers from a skewed viewpoint. It is time for the dismal science to improve its dismal record on gender.

For decades relatively few women have participated in STEM subjects: science, technology, engineering and maths. Economics belongs in this list (see Finance section). In the United States women make up only one in seven full professors and one in three doctoral candidates. There has been too little improvement in the past 20 years. And a survey by the American Economics Association (AEA) this week shows that many women who do

become academic economists are treated badly.

Only 20% of women who answered the AEA poll said that they are satisfied with the professional climate, compared with 40% of men. Some 48% of females said they have faced discrimination at work because of their sex, compared with 3% of male respondents. Writing about the survey results, Janet Yellen and Ben Bernanke, both former chairs of the Federal Reserve, and Olivier Blanchard, a former chief economist of the IMF, said that “many members of the profession have suffered harassment and discrimination during their careers, including both overt acts of abuse and more subtle forms of marginalisation.”

To deal with its gender shortfall, economics needs two tools that it often uses to analyse and solve problems elsewhere: its ability to crunch data and its capacity to experiment. Take data first. The AEA study is commendable, but only a fifth of its 45,000 present and past members replied to its poll. More work is needed to establish why women are discouraged from becoming economists, or drop out, or are denied promotion. More benchmarking is needed against other professions where women ►

► thrive. Better data are needed to capture how work by female economists is discriminated against. There is some evidence, for example, that they are held to higher standards than men in peer reviews and that they are given less credit for their co-writing than men. And economics needs to study how a lack of women skews its scholarly priorities, creating an intellectual opportunity cost. For instance, do economists obsess more about labour-market conditions for men than for women? The more comprehensive the picture that emerges, the sooner and more easily action can be taken to change recruitment and to reform professional life.

The other priority is for economists to experiment with new ideas, as the AEA is recommending. For a discipline that values dynamism, academic economics is often conservative, sticking with teaching methods, hiring procedures and social conventions that have been around for decades. The AEA survey reveals

myriad subtle ways in which those who responded feel uncomfortable. For example 46% of women have not asked a question or presented an idea at conferences for fear of being treated unfairly, compared with 18% of men. Innovation is overdue. Seminars could be organised to ensure that all speakers get a fair chance. Job interviews need not typically happen in hotel rooms, a practice that men regard as harmless but which makes some women uncomfortable. The way that authors' names are presented on papers could ensure that it is clear who has done the intellectual heavy lifting.

Instead of moving cautiously, the economics profession should do what it is best at: recognise there is a problem, measure it objectively and find solutions. If the result is more women in economics who are treated better, there will be more competition for ideas and a more efficient use of a scarce resource. What economist could possibly object to that? ■

Insects

Plague without locusts

Insectageddon is not imminent. But the decline of insect species is still a concern

“**B**E AFRAID. BE very afraid,” says a character in “The Fly”, a horror film about a man who turns into an enormous insect. It captures the unease and disgust people often feel for the kingdom of cockroaches, Zika-carrying mosquitoes and creepy-crawlies of all kinds. However, ecologists increasingly see the insect world as something to be frightened for, not frightened of. In the past two years scores of scientific studies have suggested that trillions of murmuring, droning, susurrating honeybees, butterflies, caddisflies, damselflies and beetles are dying off. “If all mankind were to disappear”, wrote E.O. Wilson, the doyen of entomologists, “the world would regenerate...If insects were to vanish the environment would collapse into chaos.”

We report on these studies in this week's Science section. Most describe declines of 50% and more over decades in different measures of insect health. The immediate reaction is consternation. Because insects enable plants to reproduce, through pollination, and are food for other animals, a collapse in their numbers would be catastrophic. “The insect apocalypse is here,” trumpeted the *New York Times* last year.

But a second look leads to a different assessment. Rather than causing a panic, the studies should act as a timely warning and a reason to take precautions.

That is because the worst fears are unproven. Only a handful of databases record the abundance of insects over a long time—and not enough to judge long-term population trends accurately. There are no studies at all of wild insect numbers in most of the world, including China, India, the Middle East, Australia and most of South America, South-East Asia and Africa. Reliable data are too scarce to declare a global emergency.

Moreover, where the evidence does show a collapse—in Europe and America—agricultural and rural ecosystems are holding up. Although insect-eating birds are disappearing from European farmlands, plants still grow, attract pollinators and reproduce. Farm yields remain high. As some insect species die out, others seem to be moving into the niches they have left,

keeping ecosystems going, albeit with less biodiversity than before. It is hard to argue that insect decline is yet wreaking significant economic damage.

But there are complications. Agricultural productivity is not the only measure of environmental health. Animals have value, independent of any direct economic contribution they may make. People rely on healthy ecosystems for everything from nutrient cycling to the local weather, and the more species make up an ecosystem the more stable it is likely to be. The extinction of a few insect species among so many might not make a big difference. The loss of hundreds of thousands would.

And the scale of the observed decline raises doubts about how long ecosystems can remain resilient. An experiment in which researchers gradually plucked out insect pollinators from fields

found that plant diversity held up well until about 90% of insects had been removed. Then it collapsed. In Krefeld, in western Germany, the mass of aerial insects declined by more than 75% between 1989 and 2016. As one character in a novel by Ernest Hemingway says, bankruptcy came in two ways: “gradually, then suddenly”. Given the paucity of data, it is impossible to know how close Europe and America are to an

ecosystem collapse. But it would be reckless to find out by actually triggering one.

Insects can be protected in two broad ways, dubbed sharing and sparing. Sharing means nudging farmers and consumers to adopt more organic habits, which do less damage to wildlife. That might have local benefits, but organic yields are often lower than intensive ones. With the world's population rising, more land would go under the plough, reducing insect diversity further. So sparing is needed, too. This means going hell for leather with every high-yield technique you can think of, including insecticide-reducing genetically modified organisms, and then setting some land aside for wildlife.

Insects are indicators of ecosystem health. Their decline is a warning to pay attention to it—before it really is too late. ■



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Black voters and school choice

There was another factor behind Andrew Gillum's loss to Ron DeSantis in last year's governor's race in Florida ("The look-homeward angle", March 9th). Your suggestion is that a strategy of "mining untapped black voters" may have turned white voters away from the charismatic, African-American Mr Gillum, causing him to lose the race. However, around a fifth of black female voters backed Mr DeSantis, the Republican. Nicknamed the "school-choice moms", these women broke racial ranks to vote for Mr DeSantis, who supports providing poor and working-class parents with alternatives to badly performing schools for their children. Mr Gillum adamantly opposes school choice, presumably in deference to the teachers' unions who wield considerable power within the Democratic Party.

Therein lies a dilemma for

Democrats. The only thing that saves them is the Republican Party's inability to present black voters with a palatable alternative. In Florida's governor's race, however, the school-choice moms put the interest of their children over racial and party solidarity.

FRANK BARRON
Greenwich, Connecticut

Water use and consumption

Your special report on water (March 2nd) stated that "flood-irrigation squanders 50% of the water it releases" and that by minimising both evaporation and percolation, one company "manages to achieve 95-97% efficiency in delivering the water to the photosynthetic process." Most experts would refute that assertion. On May 22nd 2010 you published another report on water, pointing out that inefficiencies and "losses" from excessive water application frequently return to the hydrologic system, say,

as through run-off to streams.

Confusion around the term "efficiency" stems from the failure to distinguish between "using" water and "consuming" water. Take a shower (or indeed a bath) and almost all the water used is returned via treatment works for re-use by others. Irrigate a crop, and the water "used" by the plants is converted to water vapour. Scientists call this "consumption" because it removes water from the local system and the possibility of re-use, whereas most excess water application returns to the system as recharge or run off, and is not "lost".

It is true that drip irrigation contributes substantially towards improving water productivity. But because of the confusion in water-accounting terminology it is important to assess carefully what potential effects the introduction of drip irrigation will have on the water flows left to other water users in the

basin. Many countries continue to invest in a technology that is in fact exacerbating scarcity wherever access to water is not strictly controlled.

CHRIS PERRY
Emeritus editor-in-chief
Agricultural Water
Management
London

Water is far more likely to induce co-operation than conflict between countries. As I note in "Subnational Hydro-politics", out of the 6,500 international interactions involving water from 1948 to 2008, none involved warfare, fewer than 30 involved any sort of violence, but over 200 co-operative agreements were concluded. This ought to put to rest the idea that water is a significant source of conflict between countries.

But at the subnational level, as you noted, it is a different story. Unless we use our water more sustainably and manage it more inclusively, we may ▶▶



 The world demands more energy.

 The world demands less carbon.

▶ indeed see more water-related conflict within countries than between them.

SCOTT MOORE
Senior fellow
Water Centre
University of Pennsylvania
Philadelphia

Organic matter

Britain's progress in cutting its carbon emissions ("A greener and more pleasant land", March 9th) has been achieved without jeopardising the quality of the power supply. One important reason for this has been the conversion of large coal-power stations to run on sustainable biomass. This has made it possible to deploy large amounts of wind- and solar-energy with confidence, as biomass provides reliable power on the grid to make up for any variability. That is why biomass now generates around a fifth of Britain's renewable electricity, second only to wind.

Biomass is not only a transitional technology. Today's bioenergy sector is laying the foundations for power, heat and transport using bioenergy with carbon capture, which can actively remove atmospheric carbon and lock it away. Such a combination will not only help stabilise the energy supply but will also be vital in avoiding catastrophic climate change.

NINA SKORUPSKA
Chief executive
Renewable Energy Association
London

The army corpse

I found the comparison between El Cid and Abdelaziz Bouteflika in your leader about Algeria's octogenarian president amusing ("Out with the old", March 9th). As you said, El Cid's dead body was dressed in his armour, strapped on his horse, Babieca, and sent into battle. You forgot one important detail: as soon as his ene-

mies saw him, they fled, so El Cid won the battle.

PABLO GAGO
Düsseldorf

Forever young

I assume that your Bagehot columnist is comfortably short of 65. Joan Baez didn't "burst onto the scene" at Woodstock in August 1969 (March 2nd). She had three gold albums in the early 1960s, when I was still in primary school. Ms Baez was popular in the folk scene well before she gained fame in other genres including protest songs and activism. Sha Na Na may have burst onto the scene at Woodstock. Joan Baez had long been a part of "the scene".

JOHN SCHUYLER
Simsbury, Connecticut

Send in the clowns

I enjoyed your article about surviving a trip to Mars, particularly Jeffrey Johnson's ideas on the personality types need-

ed in a team to keep it together ("Voyages to strange new worlds", February 23rd). But the idea of having a clown on board a spacecraft is not new. It was described in "A Little Oil", a science-fiction short story published in 1952 by Eric Frank Russell. In the story Coco the Clown, the 20th to hold that name, travels incognito on a starship to provide a little human oil "for human cogs and wheels".

The way that he defuses conflicts before they become dangerous, by diverting attention to himself, without the rest of the crew even realising what he is doing, is fascinating.

MIKE FIELD
Congleton, Cheshire

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The power of privacy

PARIS

The strong positions European regulators take on competition and privacy are reinforcing each other. That should worry American tech giants

AROUND 19 IN every 20 European internet searches are carried out on Google. Not those done by Margrethe Vestager. The European Union’s competition chief says she mostly looks stuff up on Qwant, which prides itself on not tracking users in the manner its larger rival does. Forget also Google Maps, or Gmail, or any other product from the Alphabet stable: “I have better alternatives that provide me with more privacy,” the Danish politician recently told a crowd at sxsw, an annual festival of tech, music and thought in Austin, Texas.

Ms Vestager is hardly at the vanguard of a movement: even in its domestic French market, Qwant has less than 1% market share. Nor, at first, might her focus on privacy seem linked to her trustbusting brief. But, as she has explained, popular services like Facebook use their customers as part of the “production machinery”. You may not pay in cash to like a friend’s pictures, or every time you ask Alexa what a “cup” of butter is in grams—but you might as well do, given how much personal data you have to fork over. Rather melodramatically, Ms

Vestager says what seem to be free services are ones for which you “pay with your life”.

Those appointed, by governments or themselves, to worry about competition have a strong interest in big tech firms such as Google and its parent Alphabet, Apple, Amazon and Facebook. How could they not, given how quickly those firms have come to dominate the business landscape. On both sides of the Atlantic, the reputation that big-tech companies other than Apple have for making free with people’s data has led to rules being tightened, and there is talk of tightening them more. There are other concerns, too. Europeans have a fairly strong feeling that the firms do not pay enough tax. Everywhere there are worries about the content which they spread—such as, for a while, video of the massacre in Christchurch—and that which they are thought to suppress.

→ **Also in this section**

22 Challenging adtech

Tech groups have hordes of lobbyists experienced in weathering these various issues. Occasional losses—such as the €1.5bn (\$1.7bn) that Google was fined on March 20th for abusing its clout in the on-line-advertising market—can to some extent just be treated as a cost of doing business. What they are not so well prepared for is the crossing of some of these streams of complaint. European regulators are bringing together concerns about privacy and rules about competition to create constraints that could up-end the way companies do business online.

Common market power

Campaigners have long lamented that, although the users of online platforms tell pollsters that they care about privacy, they do not act as if they do. If privacy becomes tied to antitrust concerns, though, users do not need to care. They merely need to be content that regulators armed with big sticks—European regulators are empowered to levy fines on companies operating in Europe that are a significant fraction of their global revenue—should care on their behalf. Ms Vestager and her colleagues seem happy to do the honours.

The premise for bringing together concerns about privacy and competition is that the tight grip which big tech companies have over user data is what has turned them into entrenched, and perhaps abusive, incumbents. As Andreas Mundt, head of Germany’s competition watchdog, the ▶▶

► Bundeskartellamt, puts it, “Europe says...that data can provide market power.” In February, his agency startled technology companies and those who analyse them with a ruling against Facebook built on such an analysis. In a 300-page finding it argued that Facebook was only able to gather so much data because of its dominant position amid social networks.

The measure of market power usually used to justify action on competition grounds is, roughly speaking, that a company is able to raise prices without losing customers. Such an ability suggests that the level of competition in the market needs at least looking into, and perhaps re-dressing. Facebook, being free to its public users (though not to the advertisers who buy the users’ attention), cannot have its market power analysed in this way. But Mr Mundt says that the company’s ability to encroach ever more on its users’ privacy without seeing them leave—for example, by starting to track them while they browse sites not connected to Facebook—is also a measure of market power.

This analysis is leading to strict new rules on the amount of data Facebook can collect from German users. It can no longer mesh together the data it gathers from its various services, including WhatsApp and Instagram, as it has said it wants to do. There are also restrictions on how much it can track its users when they browse the internet beyond Facebook. Mr Mundt compares these new constraints on the flow of information inside the company to Facebook being “internally broken up”.

The logical step beyond limiting the accrual of data is demanding their disbursement. If tech companies are dominant by virtue of their data troves, competition authorities working with privacy regulators may feel justified in demanding they share those data, either with the people who generate them or with other companies in the market. That could whittle away a big chunk of what makes big tech so valuable, both because Europe is a large market, and because regulators elsewhere may see Europe’s actions as a model to copy. It could also open up new paths to innovation.

Europe is not an impressive performer when it comes to creating tech behemoths. It is as well represented among big global tech companies as companies other than Google are in search-engine statistics: there is just one (SAP, a business software company) in the top 20. Look at the top 200 internet companies and things are, if anything, a touch worse; just eight. But in regulatory heft the EU punches far above its members’ business weight.

There are various ways of explaining this. One is that Europe’s keenness to regulate stops its tech firms from growing in the way that hands-off America encourages. Another is that the rigours of its zealous

regulation are experienced, in the main, only by foreigners—which makes them more palatable to, or even popular with, politicians and the public. “Would Brussels be so tough on big tech companies if they were French or German?” asks one American executive, rhetorically.

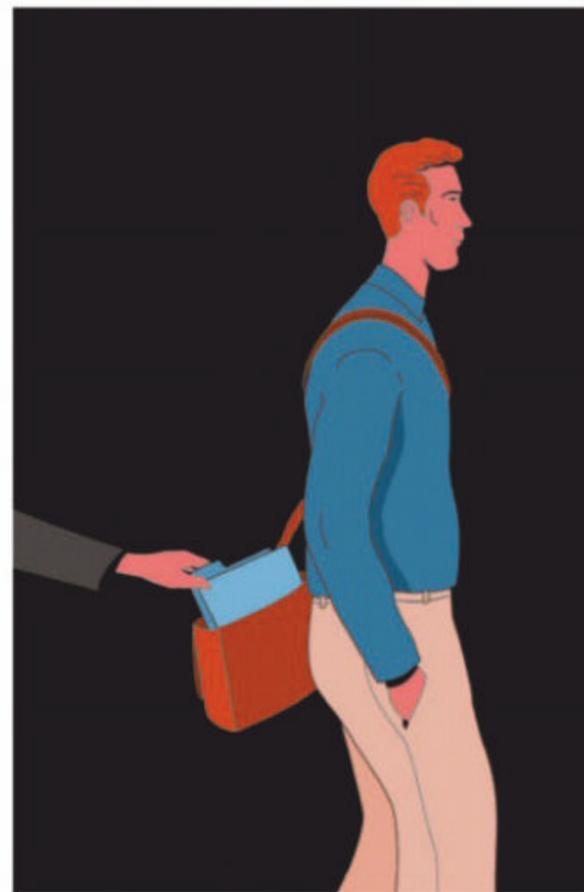
There is also the consideration that the companies potentially “disrupted” by internet innovators include European car-makers, telecoms companies and media groups, about whom European politicians care a lot. New copyright regulations being voted on by the European Parliament next week have been widely criticised for putting the interests of copyright holders, which largely means media companies, far ahead of the interests of online companies and, indeed, the free expression of users.

Regardless of motive, though, this is now the way of the world. A look at the annual reports of big tech companies clearly shows that they have a lot of European issues to face, including taxes (see chart 1). And this means that differences between the ways in which Europeans and Americans think about competition and privacy matter a lot.

Brussels rules

Take competition first. Much of the underlying law governing cartels, mergers and competition is quite similar on both sides of the Atlantic. But the continents’ approaches to handling big companies are leagues apart.

In recent decades, American antitrust policy has been dominated by free-market-teers of the so-called Chicago School, deeply sceptical of the government’s role in any but the most egregious cases. Dominant firms are frequently left unmolested in the



belief they will soon lose their perch anyway: remember MySpace? The lure of fat profits is, after all, what motivates firms to innovate in the first place. While there is healthy academic debate over whether online businesses naturally, or even inevitably, have a tendency towards monopoly, it has yet to have much effect on regulation. American courts view dominant firms as a problem only if their position does clear harm to consumers.

By contrast, “Europe is philosophically more sceptical of firms that have market power,” says Cristina Caffarra at Charles River Associates, an economics consultancy. Its regulators want to see competitors that have been less successful continue to exist, and even thrive. Competition is seen as valuable in and of itself, to ensure innovation happens beyond one firm that has conquered the market.

“The debate on whether there has been underenforcement of antitrust is far more dynamic in Europe—there is a sense of urgency,” says Isabelle de Silva, head of France’s competition authority. Germany and Austria have changed laws to allow them to scrutinise takeovers of startups, in the belief tech incumbents are taking out future rivals before they have time to hatch into real competitors. Alphabet, Amazon, Apple, Facebook and Microsoft have together taken over a company per week for the past five years.

There is not just more interest in regulating big tech in Europe; there is also more power to do so. William Kovacic, a former boss of the Federal Trade Commission in America, said recently that Brussels is “the capital of the world” for antitrust, leaving its American counterparts “in the shade”. American antitrust typically involves prosecuting the case in front of a judge. The European Commission can decide and impose fines by itself, without the approval of national governments, though the decisions are subject to appeal in the courts. And whereas, in America, only federal agencies can apply federal law, European antitrust law can be applied both by na- ►►

► tional authorities and the commission.

Every major tech group has had run-ins with European antitrust rules. Since 2017, Google has been sanctioned three times, running up €8.2bn in fines for promoting its own shopping-comparison service in search results and edging out rivals with its Android phone software, as well as for abusing its strength in advertising. It is appealing the decisions. In 2017 Facebook was fined €110m for misinforming the EU about its plans for integrating WhatsApp with its flagship social network.

In the same year Amazon was rebuked for the way it sold e-books, agreeing to change its practices. It is now under an early-stage investigation both in Germany and Europe-wide for the way it uses sales data from its “Marketplace” platform to compete with the independent retailers who sell through it. On March 13th Spotify, a Swedish music-streaming service, demanded that the commission step in to stop Apple levying hefty fees from those who sell services through its App Store.

Then there is privacy. In the past century almost all European countries have experienced dictatorship, either home-grown or imposed through occupation, which has raised sensitivities. “Privacy is a fundamental right at EU level, in a way that it is not in America,” says Andrea Renda of the Centre for European Policy Studies, a think-tank. That right is enshrined in the EU Charter of Fundamental Rights in the same way that free speech is protected by America’s constitution. Polls show Europeans, and particularly Germans, to be more concerned about the use of their personal data by private companies than Americans are.

When American tech companies first encountered these concerns they were relatively trifling. In 2010 German authorities demanded Google blur the homes of anyone who objected to appearing in its Street View service. (Rural Germany remains one of the last places where well-off people live beyond the service’s coverage.) Four years later, an EU-wide “right to be forgotten” provided some circumstances in which citizens could expunge stories about them from search results.

The General Data Protection Regulation (GDPR), which came into force last May, raised the issue to a new level. Beyond harmonising data protection across Europe, it also established a principle that individuals should be able to choose how the information about them is used. This is an issue not just for the companies which currently dominate the online world—the provisions of the GDPR were central to the German ruling on Facebook—but also for that world’s basic business model.

The data about their users collected by apps and browsers is the bedrock of online advertising—a business which in 2018 was

worth \$108bn in America according to eMarketer, a consultancy. The most valuable part of the industry works by selling the user’s attention to the highest bidder, a simple-sounding proposition which requires a labyrinthine and potentially leaky “adtech” infrastructure.

Enterprises called “supply-side platforms” use data from apps and from cookies in browsers to pass a profile of every person who visits an advertising-supported page to an advertising exchange. There the rights to show adverts are auctioned off user by user. Bidders use the data from the supply-side, along with further data procured from brokers, to decide how likely the user is to act on their ad, and thus how much it is worth to show it to him. The highest bidder gets to put its ad on the user’s screen (see chart 2). Meanwhile, data associated with the transaction are used to update the brokers’ records.

The more pertinent data the bidders get, the more the winning advertiser is likely to bid. This builds in incentives to get as much data to as many bidders as feasible. And that is not particularly conducive to the protection of privacy.

The introduction of the GDPR spurred legal challenges to this system across Europe (see box on next page). Some decisions are already headed to appeal, and it seems sure that eventually at least a few will make it all the way up the tree to the European Court of Justice.

The price of freedom

Those cases will help determine the long-term impact of the GDPR. So will the degree to which other countries take up ideas like those of Mr Mundt, the German regulator. European regulators do not all see eye to eye on mingling privacy and antitrust, according to Alec Burnside of Dechert, a law firm. But he notes that there is something much closer to consensus on it than there would be in America. The way Ms Vestager talks about privacy seems quite in line with

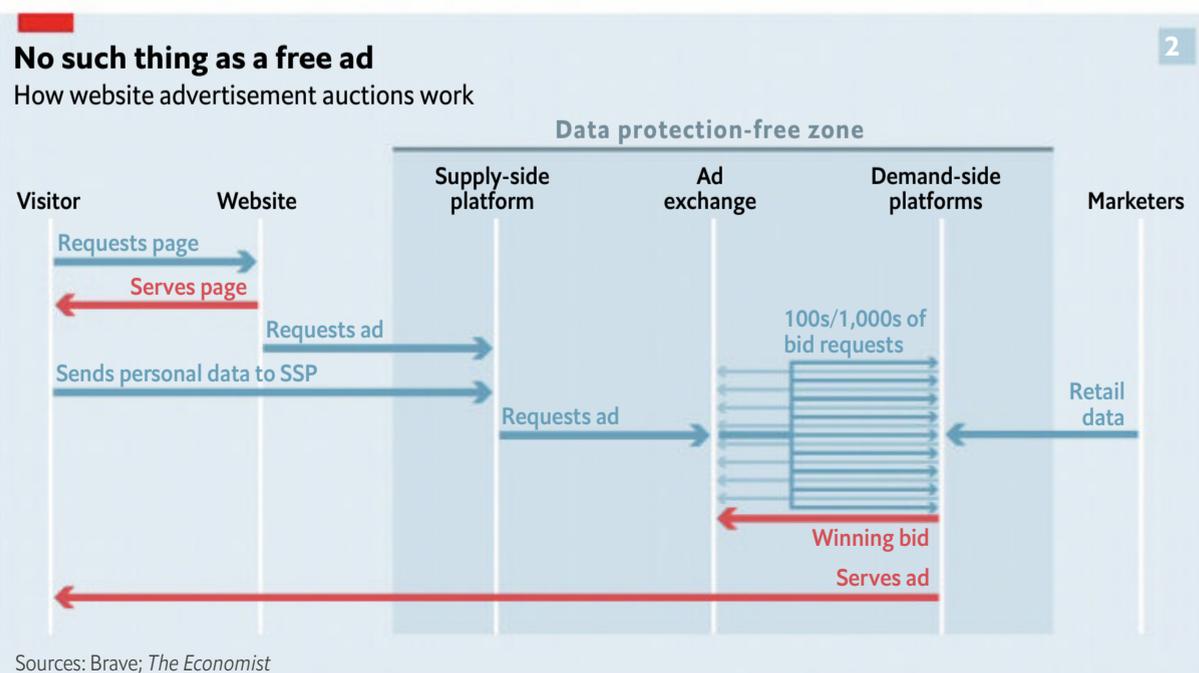
her German counterpart.

Tech lobbyists in Brussels worry that Ms Vestager agrees with those who believe that their data empires make Google and its like natural monopolies, in that no one else can replicate Google’s knowledge of what users have searched for, or Amazon’s of what they have bought. She sent shivers through the business in January when she compared such companies to water and electricity utilities, which because of their irreproducible networks of pipes and power lines are stringently regulated.

Sometimes the power of such networks gets them broken up: witness AT&T. Elizabeth Warren, a senator who wants to be the Democratic Party’s presidential candidate in 2020, has suggested Facebook and Google could also be split up. Ms Vestager pours cold water on the idea. But Europe’s privacy-plus-antitrust approach offers a halfway house: force the companies to share their data, thus weakening their market power and empowering the citizenry.

In mid-March a panel appointed by the British government and led by Jason Furman, a Harvard economist who was an adviser in Barack Obama’s White House, advocated such an approach, suggesting a regulator empowered to liberate data from firms to which it provided “strategic market status”. An EU panel with a similar remit is expected to issue recommendations along the same lines soon.

The idea is for consumers to be able to move data about their Google searches, Amazon purchasing history or Uber rides to a rival service. So, for example, social-media users could post messages to Facebook from other platforms with approaches to privacy that they prefer. The innovative engineers of the tech incumbents would still have vast troves of data to work with. They could just no longer count on privileged access to them. The same principle might also lead to firms being able to demand anonymised bulk data from Google to strengthen rival search engines. Vik ►►



► tor Mayer-Schönberger of Oxford University points to precedent: large German insurers have to share data with smaller rivals to help them gauge risk.

This may not be as fine a solution as it might sound. Getting lots of personal data to move freely while also keeping it safe is not straightforward. Users would be required to give serious thought to the question of with whom they wanted to share their information, as opposed to blindly clicking “Accept” buttons to get rid of pop-ups, as mostly happens today. Anonymising a large dataset—such as a compendium of Google searches which might then be used to train a rival’s algorithms—is harder than it might seem. Identifiable data about individuals can seep regardless.

And there may not be much appetite for it. Following Britain’s lead, the EU has forced banks to allow their clients to move their data to third parties. But demand for services that let personal-finance apps look at your bank statements has yet to take off. Google and Facebook offer their users the possibility of downloading a portion of the data those users have provided to the firms (though those taking the offer up are best advised to have a large hard drive). But few rivals have invested in complementary systems that allow you to upload those data, suggesting that a lack of user data is not the factor limiting their ability to take on today’s incumbents.

Still, the assumption remains that a combined focus on antitrust and privacy could, over time, both reduce the incumbents’ market power and open up new routes to competition. Enthusiasts point to IBM, faced with antitrust action, divorcing its software and hardware businesses in 1969. That created a new industry for software writers to explore. A world of social networks empowered to share aspects of Facebook’s map of who knows whom and likes what, while being free to explore business models other than advertising could produce all sorts of profitable, socially useful innovation by firms in Europe and around the world. And though Facebook might not do as well in such a future as it would if given free rein, it could still prosper. The past half-century has not been an irredeemably shabby one for IBM.

Europe alone might not be able to bring all this about. But a mixture of the accommodations companies make to it and the example it sets to others could have a catalysing effect. The appearance of a European commissioner at sxsw is a rarity. Progressive American politicians were this year rarely a thumbdrive-throw away. They could have done worse than stop by and listen. Demanding that tech giants be broken up may get the odd rally chanting, but it would be hard to bring about. Calling on them to give power back to the people, though, has a certain ring to it. ■

Challenging adtech

See you in court

Three challenges to the way that the internet traffics in attention

THE EU’S GENERAL Data Protection Regulation (GDPR) has opened the way for a range of complaints about online advertising auctions.

A British group called Privacy International says that companies collecting, buying and selling user-data in order to buy and sell advertising do not have the “legitimate interest” in doing so that GDPR requires. The group has argued to British, French and Irish regulators that legitimate interest covers things like fraud detection by banks—a reasonable thing to do with data gathered in the course of business—but it does not stretch so far as covering an entire business model.

None of Your Business (noyb), another activist group, filed a complaint with Belgian, French and German regulators the day the GDPR came into effect over “forced consent”. In the months prior to the introduction of GDPR, Facebook required its customers to agree to new terms and conditions which it felt to be GDPR compliant. If they did not acquiesce, they faced being blocked from their Facebook, Instagram and WhatsApp accounts. Agreement under such strictures, noyb argues, should not be considered valid. In January France’s Commission Nationale de l’Informatique et des Libertés (CNIL) agreed with part of the noyb complaint against Google’s requirement that users of its Pixel phones opt in to its data-collection policies and fined Google €50m (\$57m). Google immediate-

ly appealed; a spokesperson for the company says that people “expect high standards of transparency and control” from it and that it was “committed to meeting those expectations”.

In September ITN Solicitors, acting on behalf of Michael Veale and Jim Killock in Britain and Johnny Ryan in Ireland, filed a brief with the British and Irish regulators aimed at the basic infrastructure through which companies bid for users’ attention. Mr Ryan, who works for a web-browser company called Brave, says that because the online-bidding process is, by default, open to anyone who pays to take part, it sends personal data to unknowable destinations hundreds of billions of times a day. The amount of data involved is far greater than that lost to hacking or carelessness in one-off data breaches.

The complaint takes aim at two of the biggest real-time bidding systems, Authorised Buyers, Google’s in-house system, and OpenRTB, the system which the rest of the industry uses. It asks the regulators to examine the software protocols that auction off users’ attention and to hold Google and the Interactive Advertising Bureau (IAB), the industry body which runs OpenRTB, responsible for any improper use that those protocols allow.

Google and the IAB hold that it is not up to them how third parties use the tools they create. If regulators agree with that, they may follow the alternative course of seeking out and punishing companies that have abused the personal data that the real-time-bidding systems broadcast. If flaws being abused were thus identified, they might then look at getting the industry to make the protocols more secure.

Mr Ryan thinks the protocols should remove the most sensitive personal data—such as inferences about HIV status, political leanings, erectile dysfunction, pregnancy, eating disorders and race—from the data sent out to advertising bidders. “How much personal data, if any, is necessary for the system to function effectively?” a blog post on the British Information Commissioner’s website recently asked. It is possible that the system could still be effective while using a lot less personal data; but that might make it a lot less profitable, too. If that is indeed the case, a lot of web businesses could be in trouble.





Greece

The twilight of Syriza

ATHENS

Greece's radical left-wing ruling party is headed for electoral defeat. But it has governed better than many feared

FOR A MAN facing imminent electoral extinction Alexis Tsipras, the 44-year-old prime minister of Greece, seems as untroubled as Socrates preparing to drink his hemlock. For a start, he affects not to believe the polls. Even though all 12 of those published since the start of the year show his party, Syriza, losing to its rival, New Democracy (ND), nine of them by double-digit margins, he thinks they are systematically wrong. "They have a bad record," he says. "At the time of the referendum [on a third bail-out, which he opposed], they predicted a close result. In fact, we won 61.3%."

That is true, but if Mr Tsipras really thinks he is in with a shot, he is alone among observers. Greece's next general election must take place by October (though many expect him to call a snap vote at the same time as the European Parliament election, on May 26th), and in an interview with *The Economist* he seemed more like a man focused on his legacy than on the future. It is, to be fair, not a bad one.

Though the world did not end on January 25th 2015, you might have been forgiven for thinking that it was about to. The election that day of a new Greek government

under Syriza, the Coalition of the Radical Left, sent shock waves around Europe. Marine Le Pen, the French nationalist leader, hailed it as a "massive blow" to the EU; ratings agencies spoke of downgrades; Angela Merkel warned darkly that Greece needed to stick to its commitments on austerity and reform. She was right to worry. Over the next six months, the Syriza government broke off talks on a new bail-out, called its referendum on the terms demanded by the EU (which its finance minister had described as "fiscal waterboarding"), campaigned for a "No" vote, and won handsomely.

Since the referendum, though, Mr Tsipras has performed the most remarkable

volte-face in recent European history. His Germany-defying finance minister, Yanis Varoufakis, was pushed out; the bail-out terms he had contemptuously rejected were accepted; and the last phase of the austerity programme was fully implemented. Growth has returned, if a little anaemically, to 1.9% last year, and the government has more than met its Brussels-imposed obligation to run a primary (ie, excluding debt payment) surplus of 3.5%. Unemployment has fallen from 28% to (a still-too-high) 18%. "We have now had two years of 2% growth. This is very important given that we are also running a [primary] surplus above 3.5%...We had to fight to prove we could do it, and in less than two years we did it," the prime minister says.

Credibility matters to Mr Tsipras, for his party and for Greece itself. He insists he intends to see his term through, as a way of proving that Greece has recovered from the chaos it was cast into by the 2008 financial crisis. As the country's GDP crashed by 25%, Greece saw five general elections between 2009 and 2015. "I will not hold an early election, because I want to show that this is a country of normality. For me, the most significant achievement is that we are back in a normal condition," he says. In place of unstable coalitions, he continues, Greece now has "a clear division between progressives and conservatives...we have showed that Syriza is a party of compromise, and that Syriza is the leader of the centre-left. We are a party that belongs to the European family of the governing left. And if you govern, you have to make compromises." ▶

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▶ The apparent evolution of Syriza from radical- to centre-left does not convince everyone. Critics include some very highly placed people, who are disquietingly nervous of criticising the government publicly. “Fundamentally, this is a party that remains uninterested in encouraging investment,” says one senior banker. Most of the fiscal adjustment under Syriza has been in the form of higher taxes on middle-class Greeks, rather than cutting spending or new privatisation.

Although tax collection has been improved, little has been done by Syriza to boost Greek productivity. This betokens problems to come. “For the moment, there is still surplus capacity in the economy, but soon we will require a lot more investment if we are to grow,” says the banker. But with Greek banks sitting on non-performing loans of around 45% of their books, Greece’s dismal investment rate will not shift much. Foreign direct investment could plug the gap; but the Syriza government has a bad record on that score. Parts of a huge Chinese investment at Piraeus, Athens’s port, are being stymied by bureaucratic objections. The fact that a development on the site of Athens’s old airport seems paralysed is also a big eroder of confidence. Lawyers criticise a newly-politicised judiciary.

The party’s attitude to education comes in for particular stick from the Syriza-doubters. Small things, like the ending of a tradition where the best-performing student at schools gets to carry the Greek flag in parades on national days are a sign, they complain, that Syriza is opposed to meritocracy and still wedded to its far-left past. Worse offences include the reversing of a law designed to loosen the often-disastrous grip of politicised student representatives on the governing councils of universities. Syriza’s hostility to the market is evidenced, says one leading industrialist, by the fact that Greece is the only country in the world apart from Cuba not to allow pri-

vately owned universities. Foreign universities interested in offering courses in Greece find it virtually impossible thanks to renewed bureaucratic interference.

If Mr Tsipras’s days look to be numbered, what of the man likely to replace him later this year? Kyriakos Mitsotakis, the leader of New Democracy, is the polar opposite of the charismatic prime minister. Geeky and soft-spoken where Mr Tsipras is confident and forceful, Mr Mitsotakis could be a hard sell to ordinary Greeks. A graduate of Harvard Business School and the son of a former prime minister, he might have been sketched by a caricaturist to typify the Athens elite.

Voters seem unfazed by that. Mr Mitsotakis’s real problems may come after victory: from his own party which, as Mr Tsipras did with Syriza, he will need to change. Many Greeks blame ND for the crony capitalism and reluctance to pay tax that got the country into its mess in the first place. Still deeply conservative, ND tried to prevent Mr Tsipras from allowing gay couples to foster children. It also tried and failed to stop him recognising Greece’s northern neighbour under the compromise name of North Macedonia, a deal that has ended a nasty dispute that has been going on for the past 27 years. Mr Mitsotakis caved in to his party’s right wing on both issues.

But it would be a mistake to underestimate him. He has transformed the party’s finances, moving to headquarters costing a tenth as much. In an earlier government he did well as minister for administrative reform. “Tsipras has performed very poorly, for instance compared with Portugal, which has recovered much further and faster than Greece,” he says. His first priority will be tax reform, especially to ease the burden on business. He will push on with privatisation, and seek a less austere agreement with Greece’s creditors. “I inherited a party in deep crisis, and I’ve turned it around,” says the challenger. Now, he reckons, he can do the same for Greece. ■

Italy and China

Not so silky

Italy’s plan to join China’s Belt and Road Initiative ruffles feathers

CHINA’S PRESIDENT, Xi Jinping, was due to land in Rome on March 21st, as *The Economist* went to press. His itinerary will include a state dinner, accompanied by a performance by Andrea Bocelli, an Italian opera star. Even more enjoyable for Mr Xi will be welcoming Italy into his Belt and Road Initiative (BRI), a programme of infrastructure projects that spans Eurasia, the Middle East and Africa. Italy’s prime minister, Giuseppe Conte, hopes the planned agreement, due to be signed on March 23rd, will boost Italian exports to China. But the accord has caused consternation both within his government and among Italy’s traditional allies.

The BRI is China’s project to create a modern-day Silk Road, the ancient network of trade routes which once connected east and west. Billions of dollars have been invested since it was launched in 2013 across over 60 countries, in disparate infrastructure projects including railways, roads and ports. Some estimates of the total investment over the coming years run to \$1trn or even more.

Italy’s government last summer launched a “Task Force China” to develop a national strategy to strengthen Italy’s economic and trade relations with China and guarantee Italy a “position of leadership in Europe”. Stefano Manocchi, a professor of international economics at Rome’s LUISS University, says Italy has “a clear interest” in participating. As one of Europe’s biggest manufacturing exporters, Italy will benefit from increased trade between China and Europe “by definition”, he says. But, he concedes, “the Chinese are incredible negotiators so [Italy] will have to be careful.”

A dozen EU members have already signed memoranda with China on the BRI. But Italy would be the first G7 country to join the fray. The agreement is not a contract, but its symbolism is nevertheless important. It comes at a time when the BRI is facing a backlash, the EU is trying to forge a more co-ordinated approach to its dealings with China and there is heightened tension between China and America. The White House National Security Council has denounced the planned accord, tweeting that it “lends legitimacy to China’s predatory approach to investment and will bring no benefits to the Italian people.”

Lucrezia Poggetti of the Mercator Institute for China Studies, a German think-tank, suggests Italy is taking a “big political

Back from the dead

Greece

Unemployment rate



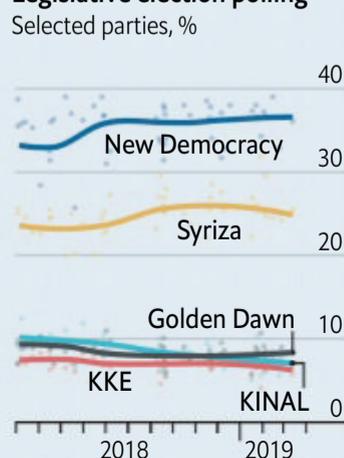
GDP*



Primary budget balance



Legislative election polling



Sources: Eurostat; European Commission; OECD; pollfopolls.eu

*Provisional data from 2011-18 †Forecast

► risk for little economic gain". The memorandum is unlikely to guarantee Italian firms access to BRI projects or specific investments, and Europe's largest exporters to China—Germany and France—have not signed similar accords. Rather, says Ms Poggetti, the agreement serves Mr Xi's purposes, conferring credibility at a time when his signature policy is facing criticism for creating debt traps in some of the countries in which it invests.

The issue has become yet another point of contention within Italy's coalition government. The anti-establishment Five Star Movement is keen to move ahead. The nationalist Northern League is concerned that cosyng up to China puts its alliance with America at risk.

As Mr Xi signs his memorandum, he may glimpse another division, over an existing infrastructure project. A protest is planned for the same day against a partly completed high-speed rail link between Turin in northern Italy and Lyon in France. Debate continues to rage within the government between the League, which favours it, and the Five Star Movement, which does not.

Of all these various "ticking bombs" threatening to blow apart Italy's coalition government, says Francesco Galietti of Policy Sonar, a political-risk consultancy, the biggest is the next budget in November. For now, both sides are focused on sticking together at least until May's European parliamentary elections are over. ■

Slovakia

If the Caputova fits

A liberal triumphs in an illiberal region

ONE YEAR ago tens of thousands of demonstrators filled the streets of Slovakia's cities. Shocked into action by the murder of Jan Kuciak, a young journalist probing links between ministers and organised crime, and his fiancée, they demanded an end to the corruption of their country's elite. The protests toppled Robert Fico, the prime minister, and galvanised a generation.

They also convinced Zuzana Caputova, a 45-year-old liberal lawyer with no political experience, to run for president. "I suddenly found myself failing to justify why somebody else and not myself should assume responsibility for bringing about change," she says. On March 16th, after a disciplined and dignified campaign, Ms Caputova took 41% of the vote in the first round of Slovakia's presidential election. She is set to win the run-off on March 30th. Two months ago she was polling in single digits.

Victory would see Ms Caputova take office as the only unabashed liberal head of state or government in the central European "Visegrad" group. Poland has followed Hungary's slide into illiberalism under Viktor Orbán, and the Czech Republic is run by Andrej Babiš, a Trumpy tycoon prone to scandal. Slovakia's euro membership has always left it closer to Europe's core, as even Mr Fico, who flirted with Orbánist populism when it suited him, had to accept.

The election also shone a light on Slovakia's darker corners. Between them an Islamophobic populist and an outright neo-Nazi secured a quarter of the vote. Grigorij Meseznikov, a political analyst in Bratislava, says such "anti-



The lone liberal

system" forces are growing stronger. Yet although Ms Caputova's support for the EU and NATO, climate policies and gay rights places her light-years away from the reactionary right, she hopes to seduce some of their voters with a Macronesque message of change. Top of her agenda as president, she says, will be to restore citizens' trust in the rule of law.

Indeed, her rise has much to do with voters' frustration with the grubby clientelism nurtured by Mr Fico's Smer party, which remains in government. Beset by feuding, Smer will struggle in the run-up to a parliamentary vote that must be held in the next year. Two days before the presidential election, a businessman who cultivated links with Smer was charged with ordering Kuciak's murder. A useful reminder of why Slovaks are demanding change.

Lithuania

To life

SEDUVA

Lithuanians are starting to pay respect to their country's murdered Jews

ALL THE Jews of Seduva are dead. The lucky ones who died ordinary peacetime deaths lie beneath simple gravestones in a windswept cemetery outside this unremarkable village. The unlucky ones were dragged out of town, forced into a ghetto in the next village, and then, in August 1941, marched into the woods and shot to death in their hundreds by their Lithuanian neighbours, overseen by the invading Germans. Their corpses were dumped in pits.

Most traces of centuries of Jewish presence were also obliterated, as they were in hundreds of other shtetls (small Jewish towns or villages) throughout Lithuania. The town's synagogues are gone. The old shtetl's square, where Jewish artisans traded and debated, is desolate. Until recently, the ancient cemetery was an overgrown mess of weeds and rubbish; the more ornate gravestones were plundered. With no Jews left to tend to the graveyard, the rough-hewn tombstones were worn blank by wind and weather.

Yet today the cemetery is well-kept and dignified. The gravestones have been put upright and restored, and the names remaining upon them carefully recorded. At the three mass-murder sites in the surrounding forests, there are solemn new memorials to the dead. And opposite the cemetery, construction has begun for a museum of Jewish village life, the Lost Shtetl Museum, set to open in 2020.

It comes as a surprise to find signs of renewal in this remote town. The country is itself a cemetery for Jews: out of some 250,000 Jews living in Lithuania before the second world war, some 90% were killed—one of the worst rates in Europe, due to the thoroughness of the Germans and the widespread collaboration of Lithuanians, who rounded up and murdered Jews.

Anti-Semitism remains common: in a Pew poll in 2015, half of Lithuanians said they would not accept Jews in their family. Almost a quarter said they would reject them as neighbours or citizens. Nationalists love talking about Lithuania's struggles against Russians or Poles, but are reluctant to discuss their compatriots who collaborated with the Nazis. In downtown Vilnius, a showy Museum of Genocide Victims is not about the Holocaust, which is strenuously downplayed, but about the post-war Soviet occupation of Lithuania, during which tens of thousands of people died in labour or prison camps over the decades. ►►

► The memorials in Seduva are not the work of the government (although the prime minister and other officials attended a groundbreaking ceremony for the museum in May), but of a small private foundation, the Seduva Jewish Memorial Fund, which seeks to remember Jewish life in one typical shtetl. “All you can find is fragments,” says Sergey Kanovich, a Lithuanian-born writer who emigrated to Israel and is a founder of the organisation.

For some six centuries before 1941, Lithuania was a centre of Jewish civilisation and learning. Vilnius, Lithuania’s capital, was renowned as “the Jerusalem of the North”, most famous for the 18th-century

teachings of Rabbi Elijah son of Solomon, who was celebrated as “the Vilna Gaon”—the genius of Vilnius. In the countryside, the shtetls nurtured scholarship, crafts and sports teams.

In Seduva, the hope is to recall some of what was lost forever when Lithuania’s shtetls were annihilated. The town itself still has some of the humble wooden houses visible in 19th-century images, not much changed: walking some of its streets, it is hard to know exactly what century it is. While the museum cannot avoid discussing the Holocaust, it means to go deeper: understanding how the Jews there lived, and not just how they were murdered. ■

an estimated €3.7m and climbing, it would be by far the most expensive hospital in the world.

Experts blame much of the dysfunction on poor and piecemeal long-term planning, inadequate budget control and Ireland’s “two tier” public-private health system. In Ireland, unlike in most other EU countries, most specialists employed in publicly funded hospitals, already well paid by the state, are allowed to dedicate a portion of their time (typically 20%, though there is in practice little supervision) to private patients. These patients are often in the same public hospital and using publicly provided facilities. As a new EU country report noted last month, this “creates perverse incentives in publicly funded hospitals, where preferential treatment of privately insured patients adds to doctors’ private revenues”.

Róisín Shortall, a former junior health minister and joint leader of the centre-left Social Democrat party, notes that many worried families pay for no-frills health insurance (at an average annual cost of €1,850 in 2017), just to be able to skip lengthy queues. “Between 46% and 47% of Irish people are on private health insurance, which is by far the highest rate in Europe,” she says. Yet only 13% of the total Irish spend on health comes from private insurance, leading to the charge that the private sector is piggy-backing on the public one.

Many Irish people are familiar with and envious of the UK’s NHS and in 2017 a cross-party committee of MPs voted unanimously in favour of Sláintecare (“Sláinte” means “health” in Irish), a detailed plan to introduce free and improved care at all levels of treatment. One key recommendation was the phasing out of private practice in public hospitals.

The government of prime minister Leo Varadkar, himself a doctor and former health minister, has said that it accepts the plan. In practice, though, it has done little to advance it. Ms Shortall says implementing the plan would require a €7bn ring-fenced investment over ten years. The government has so far voted it only €20m.

Diarmaid Ferriter, a social historian at University College Dublin, says that resistance to reform comes partly from free-market ideology (the Republic throughout its history has always been ruled by alternating centre-right parties, never left-wing ones) and partly from the insurance industry and senior doctors. “In Ireland in the 1940s private medical practitioners were worried about a reduction in their income from what they saw as “socialised medicine”, and they brought the Catholic church on board, saying that if the state extended its reach it might start looking at contraception and things like that,” he says. “The church has declined in influence, but the power of the consultants has not.” ■

Health care in Ireland

On second thoughts...

DUBLIN

One more reason why Northern Ireland might not want to unite with the Republic

AS THE UNITED KINGDOM prepares to slip its European moorings, the ties that bind it together are also under strain. In Northern Ireland, which (like Scotland) voted to remain, there is often talk that a “hard Brexit” could even build new momentum for a united Ireland. One reason for doubting this, however, can be summed up in a word: health.

The 1.8m people of Northern Ireland enjoy free access to the British taxpayer-funded National Health Service (NHS). The Republic of Ireland’s 4.8m residents have to make do with something less appealing. “I know people up north whose life’s ambition is to see a united Ireland, and yet they worry when they see the health service we have down here,” says Louise O’Reilly, an MP in Dublin and health spokesperson for the all-island Sinn Féin party.

Ireland’s relatively high spending on health care—the seventh highest in the OECD, at \$5,500 per head in 2017—is not matched by the level of service. In theory, public hospital care is free, but waiting lists for diagnostic procedures and publicly funded specialists can stretch for months, even years. An over-reliance on expensive hospital treatment, rather than care in GP clinics, has contributed to a chronic shortage of beds. On any given day, hundreds of patients will be waiting on trolleys in hospital corridors, sometimes for more than 24 hours, hoping for a proper bed. Ireland’s minority government is well aware that, along with the acute housing shortage, health is the issue on which they are most vulnerable.

Unlike their UK counterparts, some 60% of Irish people, mostly those who are

not very old or very poor, have to pay up front in cash for primary health care: a single GP visit typically costs between €50 and €60 (\$60-\$68). The state only pays for medicines above a monthly threshold of €134.

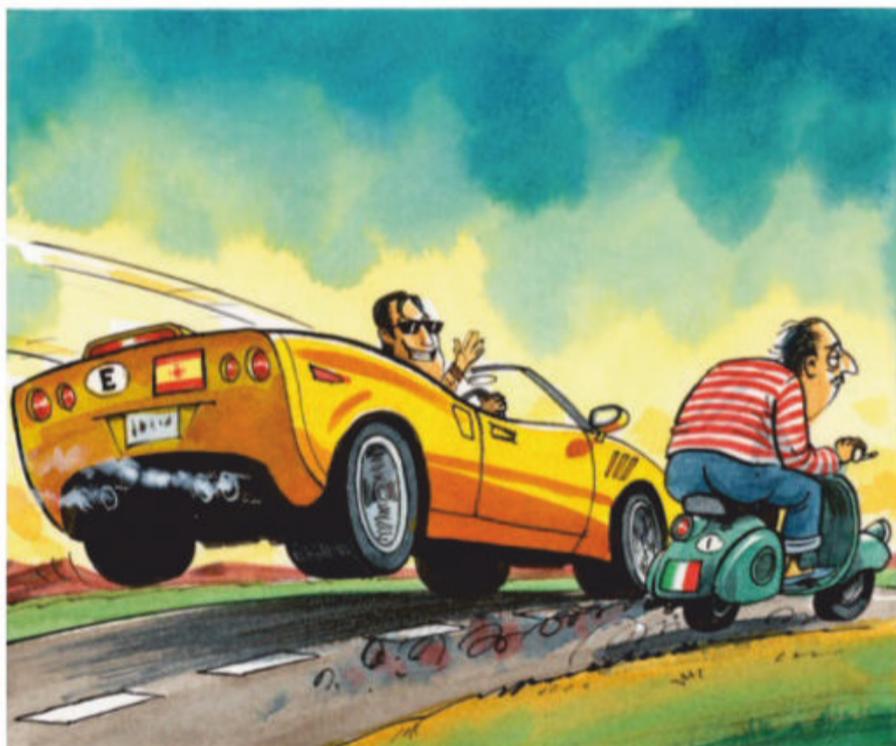
Junior doctors and nurses battle with long hours, stress and inadequate equipment in overcrowded and dingy old buildings. Many choose to take their training abroad. Meanwhile, a planned new National Children’s Hospital, originally billed at a hefty €650m, has seen its projected cost balloon to €1.73bn. In terms of cost per bed,



At €3.7m a bed, it had better be good

Charlemagne | Metabolically different

Despite alarming signs, Spain will not become a new Italy



IT IS TEMPTING to lump Europe's two big southern countries together. Italians and Spaniards talk loudly, eat late, drive fast and slurp down life-prolonging quantities of tomatoes and olive oil (such, at least, are the clichés). They were cradles of European anarchism in the 19th century and fascism in the 20th century; brushing dictatorship under the carpet before embracing Europe in the post-war years. During the euro-zone crisis from 2009 they were two components of the ugly acronym "PIGS" (Portugal, Italy, Greece, Spain) denoting particularly indebted economies. Today once more they are being mentioned in the same breath.

Italian volatility appears to be arriving on the Iberian peninsula. Spain's once boringly bi-party politics has become a five-party kaleidoscope with the emergence of the hard-left Podemos, the centre-right Ciudadanos and most recently the hard-right Vox. It is increasingly polarised by battles over Catalan independence. Last summer Pedro Sánchez's centre-left Socialists (PSOE), backed by Catalan nationalists, toppled a centre-right People's Party (PP) government. But the Catalans refused to back the new government's budget, forcing Mr Sánchez to call an election for April 28th. A right-wing coalition of PP, Ciudadanos and Vox (which would surely inflame Catalan nationalism) or a deadlock and new elections are the most likely outcomes.

It can ill-afford either. The country's recovery belies the urgency of pension, education and labour reforms, as well as nagging corruption and a rise in trans-Mediterranean migration. Years of political instability would leave these priorities unattended. Eurocrats note that Spain last year missed more deadlines for implementing EU legislation than any other member state. The sudden emergence of Vox and its embrace by other parties (it props up a PP-led government in Andalusia) evokes at once the country's Francoist past and alarming parallels with Italy. There, the Northern League, once a peripheral Vox-like party, now dominates a chaotic, Eurosceptic coalition that is spooking markets as decades of negligible growth make its debt pile teeter.

Yet despite all that, fundamental differences to do with national metabolism, lost on some northern European officials, separate the two countries. Italy is shackled by conservatism and stasis. Its euro-zone crisis was (and is) the mild acceleration of a long-term

national slump. GDP has barely grown since the late 1990s, making a debt mountain accumulated in earlier times unsustainable. Spain meanwhile hurtles forward, having grown by almost half during that period. Its euro-zone misery was more sharp and dramatic: a hyperactive construction boom raced off a cliff during the banking crisis, causing a spike in unemployment.

The difference between slow-metabolism Italy and fast-metabolism Spain goes beyond economic statistics. Decline has been the defining Italian experience of the past decades, so the new looks threatening and unwelcome there. But Spaniards have experienced the past decades as a time of rising prosperity and freedom after the drab Franco years. They are neophiles, willing to try anything that smacks of the future. The contrast between the two countries is that between Spain's urban spaces, which gleam with futuristic architecture and public works, and Italy's peeling cities; between Spaniards' openness to social change and Italians' conservatism; between the existential melancholy of Paolo Sorrentino's films and the freneticism of Pedro Almodóvar.

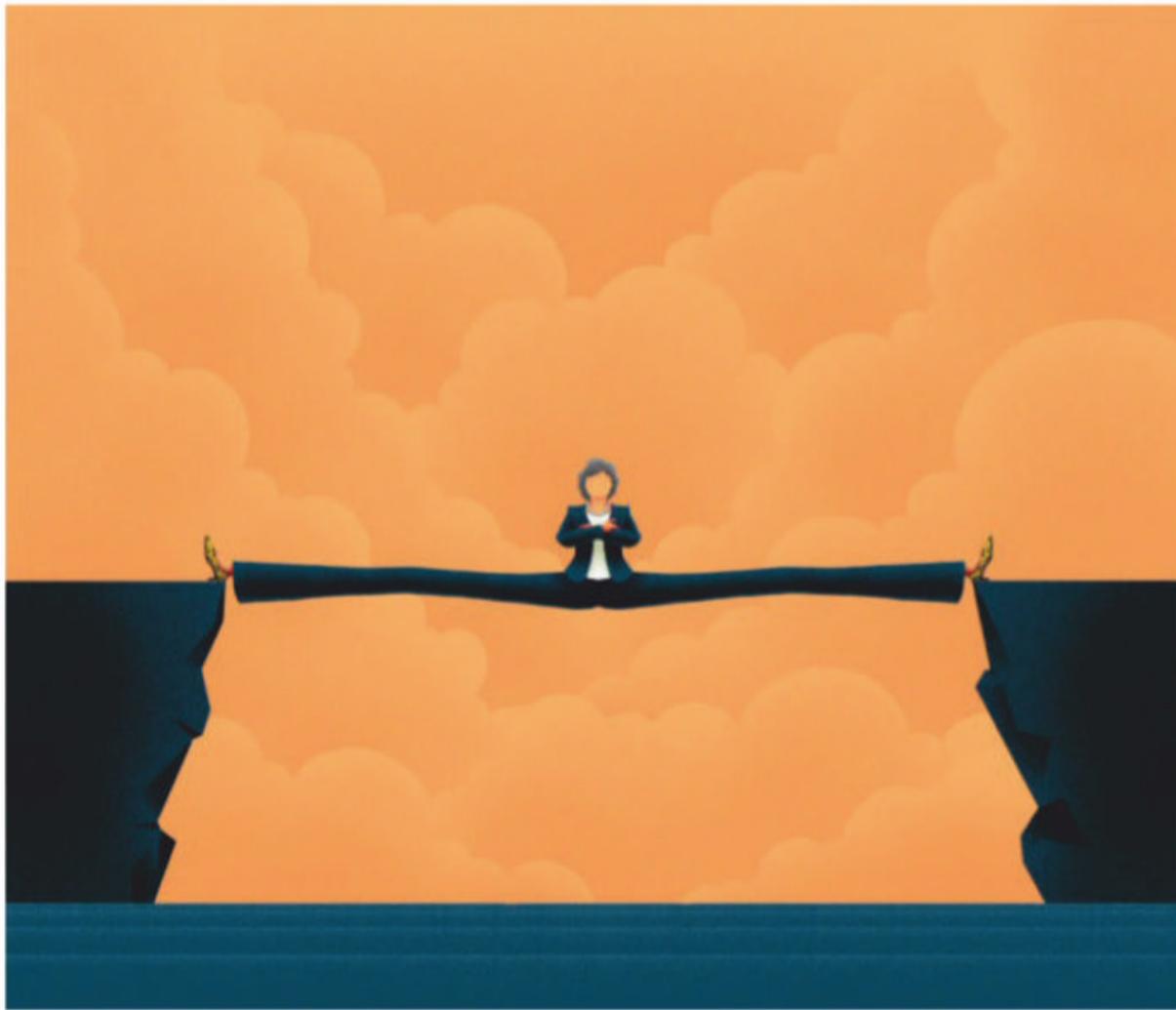
A fast national metabolism has its downsides. Some of Spain's shiny new infrastructure is wasteful and some Spaniards, especially in rural areas, resent the pace of change and are turning to Vox in protest. But it does also make Spain's descent into reactionary Italy-style stagnation improbable. For one thing, its economy is fitter. Spain had a deeper euro-crisis but recovered faster, thanks to drastic economic reforms and spending cuts. Exports and FDI surged. Its GDP per person in purchasing-power terms overtook that of Italy in 2017 and is forecast to be 7% higher within five years. Heavy investment in roads and high-speed rail has made Spain's infrastructure the tenth best in the world, says the World Economic Forum. Italy is 21st.

A sunny country

All of which translates into an outward-looking optimism. Mr Sánchez, who wants Spain to become a third partner in the Franco-German alliance, is particularly pro-EU, but the PP's Pablo Casado admires Angela Merkel's Christian Democrats in Germany and Albert Rivera of Ciudadanos brandishes EU flags at his rallies. According to Eurobarometer, 68% of Spaniards view the EU positively compared with 36% of Italians. Vox directs its anti-establishment ire not at the EU so much as at feminists and separatist Catalans.

It also talks about immigration, but less than other European right-populist parties. Why? The foreign-born share of the population rose from 3% to 14% in the two decades to 2008, but Spaniards are more likely than any other EU population to declare themselves comfortable in social interactions with migrants (83% compared with 40% of Italians). Despite rising immigration from Africa and new efforts to improve border security, none of Spain's main parties proposes to close ports or indulges in Mr Salvini's brand of anti-migrant posturing. In other areas, too, Spaniards have left the chauvinism of the Franco years behind; a broad consensus backs gender equality and gay rights (equal marriage was introduced in 2005, behind only Belgium and the Netherlands).

Years of political chaos could threaten this picture. But if that applies to Spain, it applies to other European countries too, where the same fragmentation is taking place. Last year's change of government, though fraught, was procedurally exemplary and proof that Spain's young constitutional order now has at least the maturity of its western European neighbours. It is Italy, with its decades-old fractiousness and stagnation, that looks more out of kilter. Spain is different, goes the old saying. But Italy is more so. ■



Britain and the European Union

Brextension time

The prime minister asks to extend the Article 50 deadline to allow more time to push her deal through Parliament. MPs still seem disinclined to vote for it

THERESA MAY is fond of making promises. On no fewer than 108 occasions, the prime minister has pledged that Britain will leave the European Union on March 29th, the deadline for Brexit under the Article 50 process that she triggered two years ago. Yet with just over a week to go, she wrote on March 20th to the president of the European Council, Donald Tusk, to ask for more time. Even as she told Parliament that, against her previous promises, she was seeking an extension of the deadline to June 30th, she offered yet another vow. “As prime minister, I am not prepared to delay Brexit beyond June 30th,” she said, implying that if this happened she would resign.

The question is whether anyone now believes promises made by a prime minister whose authority is shot. The Brexit deal that she struck with EU leaders four months ago has twice been voted down by the House of Commons, by enormous margins. Any control she once had over MPs, even from her own Tory party, has long gone. Even her own cabinet ministers now seem ready to defy her, whether when voting in the Commons or in leaks to the press.

EU leaders, who gathered in Brussels for a summit the day after Mrs May sent her letter, are keenly aware of all this. Any extension to the Article 50 deadline requires their unanimous agreement. Most observers believe this will eventually be forthcoming. Yet several leaders were soon threatening to say no. As Michel Barnier, the EU’s Brexit negotiator, put it, they wanted to know what an extension was for, how it would advance ratification of the deal and whether there was a risk of being in the same position in three months’ time. Mr Tusk responded to Mrs May by saying that a short extension was possible—but only if MPs approved the Brexit deal.

Despite this tough line, EU leaders do not want to precipitate a no-deal Brexit, for which neither they nor Mrs May are prepared. But they could quibble over how long the extension should be. Last week Mrs May herself warned that, if MPs voted down her deal again (which they did), any extension might have to be long. David Lidington, her deputy, even called a short, one-off extension “downright reckless”, because it made a no-deal Brexit far more

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likely. EU leaders were deliberating as we went to press. One possibility was that they might agree in principle to an extension, but hold back from legally endorsing it until late next week, right up against the March 29th deadline.

A big complication is the European elections in late May. Mrs May insisted that it would be quite wrong for Britain to participate in these elections. Some in Brussels think this suggests a May 26th deadline, but British officials reckon an extension to June 30th is possible because the new European Parliament does not meet until July 2nd. Yet an earlier deadline may be April 12th. If MPs have not backed the Brexit deal by then, the government will be under pressure to legislate to allow it to hold European elections should they become necessary.

On Westminster bridge

After the summit, the focus will return to Westminster. Having lost the first two Commons votes on her deal by the crushing margins of 230 and 149, Mrs May plans to hold a third next week, partly to justify to fellow EU leaders a short Article 50 extension. The government has also promised to allow indicative votes on what other kind of Brexit might secure a majority. Mrs May has previously accused MPs of saying only what they do not want, not what they do—yet she herself has stopped indicative votes before. If she does so again, MPs will have another go at taking over the agenda (they failed by only two votes earlier this month). ▶▶

▶ A new problem emerged this week in the form of the Speaker of the Commons, John Bercow. Without warning the government, he ruled on March 18th that it could not put the Brexit deal to a third vote in the current parliamentary session unless it was changed in substance. His ruling is based on precedents set out in *Erskine May*, the bible of parliamentary procedure, that date as far back as 1604. Both pro- and anti-Brexit MPs hailed it as a victory for the legislature over the executive. In contrast the cabinet was united, said one minister, only

in its fury at the Speaker, who is suspected of wanting to sabotage Brexit.

Despite Mr Bercow, the prime minister will keep trying to bully MPs into backing her deal. Her strategy is to peel off groups opposed to it, starting with the Northern Irish Democratic Unionist Party (DUP). She will again tell them the only alternative is a no-deal Brexit, even though Parliament has voted against such an outcome. If the DUP falls in line, many hardline Tories may follow. Although Labour's leader, Jeremy Corbyn, shows no sign of co-operating, some

of his MPs could switch—but, in a catch-22, only if the vote is likely to be won, as they don't want to wreck their prospects in the party for nothing. Mr Bercow's ruling may prevent a string of repeated votes. But if Mrs May can assemble a majority in a few days, ways can be found round the Speaker.

That remains a big if. Since Mrs May runs a minority government, winning a majority is hard, especially given her habit of castigating MPs. It is harder when MPs and even ministers freely defy their party whips, as has repeatedly happened in recent weeks. And it is harder still when parties are split, with internal caucuses like the hardline pro-Brexit European Research Group running their own whipping operation. Nikki da Costa of the Cicero Group consultancy, previously Mrs May's director of legislative affairs, says controlling Parliament is now all but impossible thanks to a cocktail of "no party discipline, extensive cross-party collaboration and the unpredictability of the Speaker".

This matters because one vote for the Brexit deal is not enough. Parliament would then have to pass a withdrawal agreement bill. Precedents are not encouraging. In 1971 Edward Heath's Conservative government won the vote to approve entry into the European Economic Community by 112 votes, but its majority at second reading of the subsequent act shrank to just eight. According to the Institute for Government, a think-tank, approval of the bills to ratify the EU's Maastricht treaty took 41 sitting days and dozens of separate parliamentary votes.

And that would be just the end of the beginning. Negotiations on future relations with the EU, ranging from trade to security co-operation, would then start, based on the political declaration that accompanies the withdrawal agreement. This has no legal force and is nebulously drafted. Worse, the timetable would be hideously short: a transition period that can be extended only until December 2022. Free-trade agreements covering such a wide range typically take several years to conclude—and several more to ratify. Any deal with Britain must be approved by all national and several regional parliaments in the EU.

In an outrageous slur, Mrs May this week showed her contempt for Britain's parliamentary tradition by saying that what had been Parliament versus government had become Parliament versus the people, adding that Parliament was now a laughing-stock. Yet MPs have only been doing their jobs of scrutinising and challenging a poor Brexit deal. It is her intransigence, her pandering to hardline Brexiters and her refusal to compromise on her red lines that have made Britain a laughing-stock. That is one reason why, if and when the future negotiations begin in Brussels, she is unlikely to be in charge. ■

Business and Brexit

Stay of execution

Companies that planned for a March cliff-edge now face rearranging for a later one

ON MAY 18TH 1536 Anne Boleyn, the second wife of Henry VIII, prepared to die. Her execution at the Tower of London was due at 9am. But the swordsman was delayed, until at last the queen was told she would not die until the next day. It was "not that she desired death," wrote a chronicler at the time, "but thought herself prepared to die and feared that delay would weaken her."

Companies braced for a no-deal Brexit may empathise. Those with contingency plans for March 29th surely feel relieved that the government is trying to extend the Article 50 talks. Nine in ten firms prefer an extension to crashing out, according to the Confederation of British Industry (CBI), a lobby group. Yet the prospect of a short delay, with no new plan for how to agree on a deal, merely moves the cliff edge back. Firms that had hoped to cancel their costly no-deal plans must now remake them.

The government surely feels their pain. It had ordered the Royal Mint to create a commemorative Brexit 50p piece bearing the date of March 29th; a test run of the coins already struck will have to be scrapped. The Department for Transport signed contracts worth more than £100m (\$132m) with three ferry companies to lay on extra services in the event of no-deal, to ensure that vital supplies from Europe could keep coming. Altering the contract to keep the arrangement on hold for another few months will reportedly cost the taxpayer tens of millions.

Some companies are relaxed about a delay. Majestic Wine said in November that it would stockpile £5m-8m of European booze to safeguard against any snagging at ports. "This position has not changed," it says. But not everything ages as well as wine. Britain's refrigerated warehouse space ran out six months ago; those firms that booked space in April



may soon be scrambling to see if they can rebook it in July. Warehousemen are reporting a surge of interest in the second half of this year, which is driving up prices.

For some manufacturers it is too late to rearrange. BMW, Honda and Jaguar Land Rover have scheduled temporary shutdowns of their car factories in April, to sit out the bumpy weeks following a no-deal exit. The idle periods are to go ahead, even if Brexit is delayed. The companies have not said whether they will arrange another pause in production when the talks near their next deadline.

Many of the firms that have stockpiled have done so on credit. Borrowing by manufacturers is rising at 20% a year, compared with 5% among non-financial firms as a whole. The longer the uncertainty goes on, the longer these loans must be serviced. Meanwhile, capital spending will continue to be deferred. No wonder the CBI has called on Parliament to "stop this circus".

Bagehot | The roar of the crowd

Protests are becoming an important force in politics, alongside Downing Street and Parliament



THE GREAT achievement of parliamentary democracy is to take politics off the streets. In the 18th and early 19th centuries Britain was a land of people on the march. Mobs rioted against papists and gin taxes. Protesters marched in favour of repealing the Corn Laws and extending the voting franchise. The arrival of full democracy in 1928 changed the tone of politics. Big demonstrations were few and far between. Industrial conflicts alienated the public. Professional protesters, carrying their bedraggled banners from one tiny meeting to another, became figures of fun.

Today the crowd is re-emerging as a force in politics. Parliament Square is permanently occupied by rival armies of pro- and anti-Brexit protesters. The Labour Party's leaders have spent most of their lives on "demos". A gaggle of Brexit supporters has begun a "March to Leave", from Sunderland to London. The People's Vote campaign expects that on March 23rd hundreds of thousands of people will march in favour of "putting it to the people", its second giant demonstration in five months.

Things began to change in Tony Blair's second term. In 2002 over 400,000 people, many of them country squires, protested against a ban on fox hunting. A year later 750,000 marched against the Iraq war. These demonstrations were driven in part by strong feelings about polarising issues, but also by a sense that politics had been taken over by a professional political class. The return of marching came at a time when formal participation in the political process had reached its nadir. In 2001 voter turnout reached its lowest level since the beginning of universal suffrage, at 59.4%. Party membership was a fraction of what it had been in the 1950s and 1960s.

More recently the return of protests has been supercharged by three things. Brexit is the gift that keeps on giving when it comes to getting people riled up and on the streets. The decision to hold a referendum unleashed a volatile force: the "will of the people" (based on a single vote), which supposedly trumps the considered judgment of elected MPs. The vote was sufficiently close for Remainders to dream of reversing it if they shouted loud enough, and sufficiently decisive for Leavers to feel affronted at the thought of a re-vote. Theresa May's serial bungling has heightened every possible contradiction between representative and direct democracy.

The second is the rise of Jeremy Corbyn. The far left has always been contemptuous of "bourgeois democracy". For them the great debate is whether simply to ignore Parliament ("If voting changed anything, they'd make it illegal"), or whether to treat it as just one front in the broader struggle. The Corbynites have taken the second route. They want to shift the locus of power from Parliament to broader society. In 2013 John McDonnell, now the shadow chancellor, proclaimed that "Parliamentary democracy doesn't work for us, elections aren't working for us" and advocated co-ordinated action with trade unions and community organisations to bring the government down. Corbynites also want to reduce MPs from representatives to mere delegates, who have to implement the will of the people (ie, the will of activists). If he ever wins power, Mr Corbyn will lead something new in British politics: a government committed to advancing its agenda not primarily in Parliament but in society at large, through co-ordinated strikes, agitation and general botheration.

The third is the rise of social media. In "The Crowd: A Study of the Popular Mind" (1895), Gustave Le Bon accused crowds of "impulsiveness, irritability, incapacity to reason, the absence of judgment of the critical spirit, the exaggeration of sentiments" and, above all, debasing the normally civilised citizen: "isolated, he may be a cultivated individual; in a crowd, he is a barbarian." This might sound a little overwrought when applied, say, to the People's Vote, where the biggest post-march agitation is about whether to decamp to Itsu or Wagamama. But it applies perfectly to the virtual crowds online. The internet not only allows the likes of Tommy Robinson to reach millions of people, it also persuades otherwise civilised folk to adopt mob behaviour, bombarding their enemies with vituperative messages and embracing ever more extreme views. It would be unwise to bet that such vituperation, once normalised, will remain confined to the virtual world.

Danger in numbers

That is why the return of crowds is bringing with it something that had long been banished from British politics: the fear of crowds. When Brexiteers like Iain Duncan Smith warn that "there will be repercussions if we don't deliver on the Brexit vote," it is unclear whether they are offering analysis or making threats. Mr McDonnell has repeatedly used the 18th-century device of threatening to raise a mob. In 2011 he told a rally that no Tory MP should be able to "travel anywhere in the country or show their face in public without being challenged by direct action." After the election in 2017 he urged 1m people to "get out on the streets" to force another vote. Far-right activists wear yellow jackets not just as a gesture of solidarity, but as a threat that they will start acting like the French—smashing things up and disrupting traffic—if they don't get what they want. This week supporters of James Goddard, a yellow-jacket wearer who stands accused of harassing Anna Soubry, an anti-Brexit MP, forced a judge to halt court proceedings and then joined other activists in storming the attorney-general's office.

Parliament has not acquitted itself well in the past few weeks. Ministers have accused the Speaker of bias, MPs have engaged in shouting matches and secretaries of state have voted against their own government. Yet at this low moment in Westminster's history, it is worth remembering what a glorious role Parliament has played in replacing the politics of agitation with the politics of discussion and deliberation. A few protests every now and again can enhance democracy. But for the most part politics belongs in the debating chamber, not on the streets. ■



Protests in the Arab world

Talk of spring

Protests are making a comeback in the Arab world, but there are reasons they haven't gone viral

THE MANTRA of the Arab spring is back. “The people want the regime to go,” chant hundreds of thousands of protesters in Algeria, hoping to end the 20-year rule of Abdelaziz Bouteflika. Their cries are echoed in Sudan, where three months of demonstrations have rattled the regime of Omar al-Bashir, the leader for three decades. Protesters in Iraq, Jordan, Lebanon, Morocco, Tunisia and the Palestinian territories have also demanded better governance of late. Five years after the region's authoritarians silenced it, the Arab street is regaining its voice.

This has prompted talk of an Arab-spring sequel. As in 2011, the protests have been spontaneous, inclusive and bereft of leadership. The same grievances fuel today's unrest. But the context could not be more different. The wars and chaos that followed the Arab spring have cooled the ardour of activists and their regional patrons. Meanwhile, autocrats have sharpened their tools of repression in order to quash protests at home and stop those elsewhere from spreading. “They have rewired the entire region trying to prevent

another Arab spring,” says Marc Lynch of George Washington University.

Turkey, Iran and Qatar helped spread the contagion in 2011, but their regional ambitions have taken a back seat to their own security concerns. President Recep Tayyip Erdogan tightened his grip in Turkey after protests in 2013 and an attempted coup three years later. The Islamist-leaning democratic model he once touted increasingly resembles the authoritarianism he lampooned. Iran's leaders were eager to fan the flames of the Arab spring—until it threatened to burn their ally in Syria, Bashar al-Assad. They, too, are now rocked by protests at home. Qatar, though, has performed the biggest turnabout. Under siege by its neighbours, it needs all the friends it can buy. It hosted Mr Bashir in February and has kept mum on Algeria's troubles.

Eight years ago Al Jazeera, the Qatari satellite television network, was the Arab spring's soapbox. With rolling coverage and rousing promos, it egged on national protests and created a region-wide narrative. But its coverage of the upheaval in Algeria and Sudan, the Arab world's second

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and third most populous countries, has been paltry. Anchors depict the protests as isolated events on the periphery of the Arab world. Some highlight Algeria's linguistic peculiarities. (Its dialect is incomprehensible to many Arabs.) “They're deliberately disconnecting the dots,” says Ahmed Mustafa, a monitor of Arab media in Abu Dhabi.

Despots who fought change all along have cracked down on independent media. Information ministries dictate headlines, ban foreign journalists and harass local ones who don't co-operate. Investigative reporters and those who are critical of regimes are often denounced in state media as terrorists and traitors. Some are tortured. Saudi Arabia has established a “rapid intervention group” to pursue those who flee, such as Jamal Khashoggi, a former Saudi newspaper editor, who was murdered and dismembered in the Saudi consulate in Istanbul.

The digital duel

Social media, the dynamo of the Arab spring, still bring crowds onto the streets. Algeria has one of the region's highest rates of Facebook usage coupled with perhaps its least technologically savvy regime. “Its lack of knowledge left an empty space,” says Ashraf Zeitoon, who ran Facebook's policy unit in the region. Still, there are no catchy hashtags linking the protests in different countries, and sharper autocrats have turned social media to their advantage. Saudi Arabia and other Gulf states have built troll farms (office blocks full of nerds ▶▶)

▶ feeding hundreds of fake social-media accounts) and bots (automated regurgitators) to spread official talking points. Intimidation, through spyware, hacking, abusive comments or simply arrest, reduces opposing messages.

Governments have also stepped up their old-fashioned repression. On the eve of Algeria's largest protest, Egypt's president, Abdel-Fattah al-Sisi, warned against copycat "riots". A politician in Bahrain was recently sentenced to six months in prison for calling on Mr Bashir to step down. Many countries have outright bans on large gatherings, while vaguely worded security laws enacted after the Arab spring allow governments to round up potential rabble-rousers. "The use of live ammunition even

against small, symbolic protests has effectively reduced dissent to zero," says Sarah Leah Whitson of Human Rights Watch, a pressure group.

Being less connected is not necessarily a bad thing for today's protesters. Those in Algeria and Sudan pride themselves on their independence and nationalism. For now, at least, they are displaying discipline and rejecting violence. "We're not Syria or Libya," they chant in Algeria, while self-interested leaders warn of chaos and bloodshed. The protesters show no sign of going home. Emile Hokayem of the International Institute for Strategic Studies, a think-tank in London, doubts that they can be made to: "The ebb and flow of street protest is the region's new normal." ■

two other contenders were tainted by scandal. More than anything, he was seen as a safe pair of hands.

"There's no shame in striving for peace," says Mr Gantz in the fourth ad, which seems more in keeping with his character. While bashing Gaza, he spoke of how his mother, a Holocaust survivor, told him to make sure the Palestinians got food. In meetings with Mr Netanyahu's cabinet, while head of the armed forces, he opposed plans to attack Iran's nuclear installations, though he did put the army on a war footing. His rivals grumbled that he achieved little yet somehow managed not to get blamed for operational failures, such as Israel's chaotic withdrawal from Lebanon in 2000, which Mr Gantz oversaw.

Like many retired generals, Mr Gantz, whose father was prominent on the left of the Labour party, is a shade left of centre on Israel's spectrum. "Hawkish on security, moderate on diplomacy," as a party colleague describes him. He has privately endorsed a peace plan by the Institute for National Security Studies, a think-tank in Tel Aviv, that would increase Palestinian control of the West Bank and "build an infrastructure for a two-state solution in the long term." His party's manifesto is vaguer, calling for deeper separation from the Palestinians. But if he wins, he may seek to restart peace talks, cut off in 2014.

That is one difference with Mr Netanyahu, who shuns the Palestinians. Another is the so-called nation-state law, which states that the right of national self-determination is "unique to the Jewish people". Mr Netanyahu championed it. Mr Gantz wants to amend it to guarantee equal rights for all. But issues have been given short shrift in a campaign largely about image. Mr Netanyahu brands his opponents as the "weak left", in league with "Arab parties that oppose the Jewish state". Mr Gantz's slogan, "Israel before everything", is meant to contrast his squeaky-clean persona with the incumbent's supposedly dodgy one.

The tone of the contest is getting nastier. Mr Gantz has accused Mr Netanyahu of receiving 16m shekels (\$4.4m) in a deal tied to the Israeli navy's purchase of German submarines. Mr Netanyahu pushes back with the phone-hacking story. "Benny Gantz, what do the Iranians know about you that you're hiding from us? What are the Iranians holding over you?" he asks.

The race will ultimately come down to whether centrist parties, such as Blue and White, and left-wing parties, such as Labour, win more seats in total than Mr Netanyahu's right-wing coalition. On this the polls suggest a tight race. But Mr Netanyahu has not seemed as vulnerable for years. "It would just be Benny's luck to be there at the right moment, with Netanyahu ripe to fall," says one of Mr Gantz's former comrades-in-arms. ■

Israeli politics

The man who would be prime minister

JERUSALEM

If he is to defeat Binyamin Netanyahu, Benny Gantz must convince Israelis that he can protect them

THE NEWS could not have come at a worse time for Benny Gantz, the main challenger to Binyamin Netanyahu, the prime minister. Less than four weeks before Israelis go to the polls it was reported that Mr Gantz's telephone had been hacked by Iran and that stolen information may have included embarrassing images. While the candidate dismissed it as "political gossip", some in his party blamed Mr Netanyahu for spreading the dirt. The prime minister shot back, "If Gantz can't protect his phone, how will he protect the country?"

Security is the overriding concern for voters in this election, which gives Mr Netanyahu an advantage. He has kept the country safe for a decade. But many Israelis dislike his divisiveness and alleged misdeeds. He faces a preliminary indictment for corruption, fraud and breach of trust. That leaves an opening for Mr Gantz, the towering, blue-eyed former chief of staff of the Israel Defence Forces. Though a political novice, his party, Blue and White, is running neck-and-neck in the polls with Mr Netanyahu's Likud party. "The key to winning is taking the Mr Security title away from Netanyahu," says a Gantz adviser.

To do that Mr Gantz has enlisted two other former army chiefs, Gabi Ashkenazi and Moshe Yaalon, as running mates. As he launched his campaign, his party put out four videos, three of which highlight his toughness. As a general Mr Gantz led two wars in Gaza, in 2012 and 2014. The videos show neighbourhoods reduced to rubble and tally the number of "terrorists killed" and "targets destroyed". "Parts of Gaza were



The laid-back prince

returned to the stone age," says a narrator. One clip shows footage of a leader of Hamas, the militant Islamists who run Gaza, being assassinated by a drone.

But those videos belie a less hawkish, more easy-going figure. When Mr Gantz commanded the elite paratroopers brigade he was nicknamed "Bennyhuta", a play on his name and the Aramaic word meaning laid-back. Others called him "the prince" for his swift, seemingly effortless rise through the ranks. In some ways he was lucky. He was made deputy chief of staff as a compromise after the chief of staff and the defence minister failed to agree on a candidate. He became chief of staff after

Congo

Fighting Ebola, and myths

BUTEMBO

Why are clinics tackling a deadly epidemic being attacked?

AT DUSK ON February 27th a group of young men dressed as football players were kicking a ball around a pitch besides an Ebola treatment centre in Butembo, a city in the east of the Democratic Republic of Congo. Suddenly men with guns and machetes sprang out of the bush and handed weapons to those masquerading as footballers. Together, they charged into the centre. As the sick fled, along with health workers, the men splashed petrol around before tossing in lit matches. When nurses crept back later they found the smouldering remains of the pharmacy, archive room, hand-washing station and vehicles.

The province of North Kivu is no stranger to misery—it has long been home to some 120 militia groups that regularly rape and terrorise. Now it is also the site of the world's second-largest outbreak of Ebola, a virus that makes people gush blood from every orifice. Since being detected seven months ago, the virus has spread to nearly 1,000 people and probably killed 600. Its emergence in what is in effect a war zone makes it hard to contain. Health workers are often unable to isolate the infected, or to vaccinate everyone who has touched them. Some villages are deemed too dangerous for vaccinators to visit.

To cap it all, Ebola clinics are being attacked. In the past month alone four have been assailed. A male nurse was strangled in front of his wife. Experts from the World Health Organisation (WHO) were ambushed in their car, which was smashed up by men with sticks. A member of the team charged with burying corpses safely, so that they do not infect new victims, was slashed in the head with a machete.

The attacks have prompted Médecins

Sans Frontières (MSF) to close a treatment centre and leave Butembo. They may also deter patients from getting treatment. Almost half of the deaths in this outbreak are occurring in villages, not clinics, suggesting many of the sick are not seeking help. "Security is still our number one concern and could reverse the gains we have made," says the WHO.

Some premeditated attacks have been blamed on Mai Mai rebels. This is such a vague term, referring to many local armed groups, that it sheds little light. Some attacks are spontaneous, and by unknown perpetrators. What motivates them?

Some, perhaps, are in search of loot. Aid workers are conspicuously richer than most locals, and present a tempting target.

Another problem is that many locals see health workers as an arm of the government, which they detest. It does not help that the government keeps trying to force people into treatment centres where, since they are already sick, many die. "The response has often treated patients as a biosecurity risk, rather than as a patient with a choice about how they should manage their own illness," says Alex Wade of MSF. The WHO says it regularly urges the government not to use force. It asks soldiers, police and UN peacekeepers to escort its staff to villages, but then stay on the periphery. This probably helps.

Another problem is ignorance. Some locals think Ebola was introduced by white people who want to harvest organs. Justin ▶▶

Mozambique

Beira's battering

JOHANNESBURG

A tropical cyclone causes devastation

AID WORKERS have described it as Mozambique's worst humanitarian crisis since its 15-year civil war. Nearly a week after Tropical Cyclone Idai walloped the coast before churning inland, the full extent of the damage is still unclear. Beira, a port city of half a million people, was cut off after a storm hit between March 14th and 15th, bringing fierce winds and flooding that destroyed bridges, roads and electricity lines.

Filipe Nyusi, the president, described seeing bodies floating in rivers as he flew over the region by helicopter. He said the death toll could rise to more than 1,000.

Red Cross workers reckon 90% of buildings in Beira were damaged or destroyed and fear the situation may be worse still outside the city, where floodwaters have yet to recede. In some neighbourhoods, the tops of concrete-block houses were simply blown off. Elsewhere, video footage showed people huddled on rooftops, evoking memories of catastrophic floods in 2000, when the world was captivated by the story of a woman giving birth in a tree she had climbed to escape rising water.

As the storm moved inland, it also swamped southern Malawi and eastern Zimbabwe. Chimanimani, in Zimbabwe, was especially badly hit; it was cut off because of damage to roads. Zimbabwe's government said 98 people had died and more than 200 were missing. Torrential rains continue to deluge the region, adding to the misery. In all, more than 1.5m people have been affected. The UN has urgently appealed for donations.

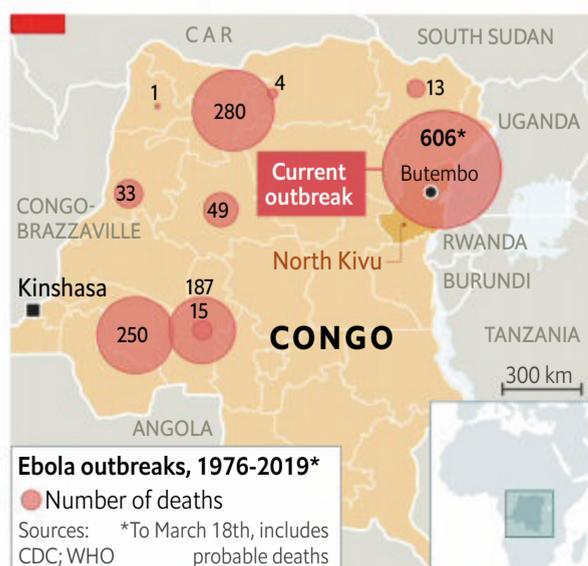
A long-term recovery plan will also be needed. The floods appear to have ruined



After the flood

maize crops, raising the risk of hunger. In Zimbabwe, where the government declared a disaster, a drought has already left 5.3m people in need of food aid. With the waters slow to recede, diseases may fester. Schools and hospitals along with bridges and roads need repair.

Policymakers also need to prepare for the future. One challenge is improving warning systems. The Red Cross Red Crescent Climate Centre says that although there were good forecasts of the cyclone, the flooding and landslides it caused were less well anticipated. Low-lying coastal cities such as Beira are especially vulnerable to storms, which could worsen as climate change disrupts weather patterns. The destruction underlines the need to invest in protected infrastructure before the next assault.



► Munyandele, a 24-year-old mechanic, lingering outside his garage in grubby overalls, says Ebola was brought in by the government to exterminate the Nandes, the biggest ethnic group in the region. Others say it is a fiction that was invented to prevent people from voting in elections last year. The poll was suspended because of the outbreak in strongholds of an opposition candidate, Martin Fayulu.

With hindsight health workers recognise that they should have done more to involve local people. “The response started badly,” complains a young motorbike-taxi driver in Katwa, on the edge of Butembo. “They came here with police escorts to be protected. That wouldn’t have been necessary if they had employed people from

Katwa to work with them.”

Progress has been made. The rate at which the infection is spreading is much slower than in the outbreak in west Africa that killed more than 11,000 people in 2013-16, possibly because of a new vaccine administered to more than 85,000 people. And efforts to fight myths about the virus are showing results. The WHO says it sees “pockets of mistrust, not a wall” and that 90% of people accept vaccination. William Perea, the incident manager for the WHO in Butembo, says that some once-hostile villages are now letting his teams in. “People are not stupid. They do not like to die like flies,” he says. To soothe tensions and keep the virus from spreading, the key is “to get as close as possible to the communities”. ■

story elicits some sympathy in northern Uganda. This was a disturbingly intimate war, where almost everybody knows someone who was abducted and returned. A local MP is standing surety for Mr Kwoyelo to seek bail. He argues that Mr Kwoyelo should instead go through a “traditional” ceremony, which puts reconciliation above punishment. It is a popular view, though not one shared by many victims.

Distrust of the court is rooted in memories of the war. In it the government ordered almost the entire local population into squalid camps where thousands died of disease. “Between the government and the rebels, who is to blame?” sings Bosmic Otim, a pop star. Many people accuse the army of committing atrocities and wonder why its soldiers are not on trial, too.

Perhaps that is the point. The ICC, which Ugandan leaders have previously supported but now rail against, will investigate crimes only when domestic courts are unable or unwilling to do so. Uganda has used its own war-crimes court to “give the perception that the Ugandan government was able to try international crimes and therefore shield its leadership from ICC investigations,” argues Nicholas Opiyo, who was Mr Kwoyelo’s lawyer for nearly ten years before dropping out of a case he deems irretrievably unfair. Harriet Ssali, the registrar of the domestic court, says that it had “practically begged” people to file reports on alleged army atrocities, but that they are too scared to do so. Any such case would be passed on to a military tribunal.

The judges think Mr Kwoyelo’s trial will take three years, which is optimistic. The court is so short of money that one of the victims’ counsels could not afford to travel to a recent session. Nor is it clear who will fund the reparations that the victims expect. The trial is meant to set Uganda on a road towards justice. The risk is that it becomes a dead end. ■

The Lord’s Resistance Army

A former rebel in the dock

GULU

Uganda’s first war-crimes trial raises more questions than it answers

PEOPLE STILL fear Thomas Kwoyelo in the villages around Pabbo, a town in northern Uganda where the Kilak hills smudge the horizon. Prosecutors in Uganda’s first war-crimes case allege that when he was a colonel in the Lord’s Resistance Army (LRA), a rebel group that terrorised northern Uganda from 1987 until 2006, he and his men abducted children, stole animals and massacred civilians. He pleads not guilty on all 93 counts, which include charges for murder, rape and enslavement. “He should be locked away for ever and never come back,” says one widow.

The prosecution made its opening statement on March 12th in the high court in Gulu, a short drive away. The trial is seen as a test case for the court’s International Crimes Division, one of the first domestic war-crimes courts in Africa. Established in 2008, after failed peace talks with the LRA, it has convicted human traffickers and terrorists. But Mr Kwoyelo, captured a decade ago in Congo, is the first LRA rebel to appear before it. Many in northern Uganda don’t think he should face trial at all.

Most of the group’s leaders have escaped justice. In 2005 the International Criminal Court (ICC) in The Hague issued arrest warrants for five senior commanders. One of them is now on trial there; three others are thought to be dead. Joseph Kony, the self-declared spirit medium who led the rebellion, is still at large. Thousands of LRA fighters have received amnesty under a law passed in 2000. Mr Kwoyelo—too junior to appear on the ICC’s list—is aggrieved that he was not given amnesty.

Higher-ranking rebels walk free.

In the villages where Mr Kwoyelo once roamed people catch news of his trial on radios. It is better that the case is heard in Gulu, says one man, than in a foreign court. The Ugandan court has appointed victims’ counsels, distinct from those for the prosecution and defence, who liaise with communities and represent victims in court. One of the counsels says their purpose is to “establish the bigger picture, beyond the guilt or innocence of the accused”.

But the defence argues that Mr Kwoyelo is a victim, claiming he was abducted as a child while walking to school and forced to follow orders for fear of being shot. That



Thomas Kwoyelo, alone among the accused



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Policing

Watching the watchmen

CHICAGO

The Windy City's troubled police force gets federal oversight

"FOR ME, NOTHING'S gonna change," says a police sergeant, hands on hips, huddled with colleagues in a station in a scruffy, violent district on Chicago's West Side. He sounds relaxed as the city begins its term under a "consent decree", a court-ordered process that imposes federal monitors to oversee police reforms. "If you're a good officer, it won't change anything," agrees another man in uniform.

As they will soon discover, much in fact will have to be done differently if a history of often unconstitutional policing in the Windy City is to end. Even as Los Angeles and New York have cut murder rates to historic lows over the past three decades, Chicago's remain three times higher. Officers have long proved trigger-happy and quick to cover up colleagues' wrongdoing. One calculation in 2016 found that they fired at a member of the public every five days, and had killed 92 people in the previous six years. And young black men are overwhelmingly the victims of police abuse.

Reform in Chicago has been hampered by strong police unions and politicians who dared not make enemies by confront-

ing the 13,000 men in blue. Chicago long failed, for example, to train its officers properly. Eddie Johnson, the superintendent, recalls he was educated in use-of-force rules as a novice at the police academy in 1988 but not retrained for 28 years, until he became the top cop in 2016.

Mr Johnson's appointment came after protests over an egregious killing, in which a white officer was filmed shooting a disoriented black teenager, Laquan McDonald, 16 times in 2014. (The officer was convicted of murder, a rarity in Chicago, last October.) Since then a new "pointing policy" discourages quick draws, though it has caused consternation in the force. Mr Johnson said recently that officers grumbled so much, "it is the bane of my life."

Though he talks of other recent improvements, such as officers' use of body cameras, he admits that difficulties linger. These include ongoing use of "racist techniques" and the fact "we treat part of the city inappropriately". He means his police are most likely to abuse Latino or black residents. This, Mr Johnson reckons, is the fault of a few rotten apples. "We need to

identify the bad actors and get them out."

In reality, the problems are structural. The compensation doled out for wrongdoing by his force provides an illustration. Since 2010, such settlements plus interest have amounted to over \$930m (not far off the \$1.5bn annual budget for the police). In 2015 the city agreed to pay reparations of \$5.5m to victims of a detective, Jon Burge, who led a team known as the "Midnight Crew". For much of the 1970s and 1980s they beat, burned, raped, electrocuted or subjected to mock executions 118 suspects, probably many more, to get confessions.

Such systemic failings explain why the mayor, Rahm Emanuel, at last agreed to a consent decree. He says that after "seven attempts in 100 years to reform", he is proud that bigger changes will come. The decree was in the works for two years, as first the Justice Department and then Illinois's attorney-general demanded it. It allows federal monitors to insist on openness and accountability across many departments, not only the police, says Walter Katz, who negotiated for the city. The experiences of other cities which have had decrees, such as Los Angeles, suggest it will last a decade or more.

Consent decrees were made possible by legislation from 1994 (passed after riots in 1992 in Los Angeles, sparked by the acquittal of police officers who had beat a black motorist, Rodney King.) The Justice Department each year has typically picked two or three targets for reform from 18,000 police departments. It usually responds to ►►

▶ a prominent case of police malpractice. According to a Justice Department review of two decades' use of decrees, there have been 69 formal investigations and 40 decrees covering police departments.

Do they work? Because they apply to only a few of America's 18,000 police departments, it is hard to prove that consent decrees lead to fewer police shootings. (America's police killed 998 people in 2018, on a par with recent years.) But Stephen Rushin of Loyola University in Chicago, author of a book on consent decrees, says their benefits far outweigh costs. He says police use less "categorical force" when being monitored, meaning acts that send members of the public to hospital rather than a morgue. Surveys also often show that public support for the police rises when decrees are in place. And Mr Rushin argues that cities can expect to pay less in civil suits after decrees take effect.

What of objections that constrained police are less able to get on with arresting criminals? Heather MacDonald, author of "The War on Cops", has argued that violent crime rises when police pull back from "proactive" measures such as stop-and-frisks of potential suspects. In 2016 she said that increases in violence in cities like Chicago or Baltimore could be because police felt hamstrung.

Mr Rushin, aided by evidence from the past couple of years in which crime began to fall again, rejects that. He agrees that consent decrees hurt police morale and could make officers leave. His study of "depolicing" did suggest a short-lived but "significant" uptick in some crime rates, when police complain of "growing pains" from external oversight. But he suggests this involves property crime, not the violent sort. In the case of gun violence police typically reacted to shootings, and did not act proactively to prevent them. Nor does he see arrest rates generally falling.

Beyond Chicago, the chance for new research on decrees will be limited. Under Barack Obama the Justice Department was keen on decrees, but Donald Trump's administration has frozen them, saying state or local authorities, not federal ones, should take charge. That stance won Mr Trump support from police unions, just as it infuriated civil-rights activists.

That need not mean the end of reforms, however. Individual cities can study the Justice Department's 69 investigations of police departments and find ideas for change. The best processes are often the most open. In Chicago the first draft of the consent decree was made public, passed round 13 focus groups (including police officers) and took hundreds of hours to negotiate. Mr Rushin thinks more open-minded police departments, state and local governments can find lessons to apply for themselves, even without federal pressure. ■

College admissions

Exorbitant privilege

The argument that universities need to give preference to the children of alumni in order to pay for places for the poor doesn't wash

"I AM SIMPLY thrilled about all the folks you were able to admit," David Ellwood, the then dean of Harvard's John F. Kennedy School of Government, wrote to the then admissions dean, William Fitzsimmons, in a 2013 email entitled "My hero". "All big wins. [Name redacted] has already committed to a building."

Charges brought against rich and famous people who are accused of illegally buying university places for their children has focused attention on an oddity in American higher education: that while it was illegal for these people to buy places, others can do so quite legally. This issue is normally hidden behind the veil of the "holistic" admissions policy which selective universities run. But a case in the Supreme Court in which Asian-American plaintiffs allege that Harvard's admissions system is racially biased has thrown a light on preference given to different groups, including "legacies"—the children of alumni. Their parents do not have to fork out for them to be favoured, but since alumni are universities' principal source of donations after foundations, institutions that practice legacy preference defend it as essential.

A survey by the *Harvard Crimson*, the student newspaper, found that 29% of the class of 2021 had a close relation who had been at the university; 18% had at least one parent there. Nor is the practice confined to the top institutions. A survey of 499 admissions directors by *Inside Higher Ed* found that 42% of those at private universities used legacy preference.

Legacy preference is, as Richard Kahlenberg, a senior fellow at the Century Foundation and editor of "Affirmative Action for the Rich", points out, both entirely un-American and uniquely American. It flies in the face of the ideals on which

America was founded—the rejection, as Thomas Jefferson put it, of the "artificial aristocracy" based on birth, which had corrupted Britain, in favour of a "natural aristocracy" based on "virtue and talents". No other serious university system permits it. Universities in Britain, the only other country represented in the *Times Higher Education* league of the world's top ten universities, use test scores supplemented, in some institutions, with an interview.

In the 1920s, Ivy League college administrators feared that relying too much on exams to screen applicants would yield a high number of Jewish students. They set up admissions systems which embedded legacy preference. In the egalitarianism of the post-war era, universities tried to get rid of legacies, but were defeated by passionate opposition from their alumni.

A nice fat tip

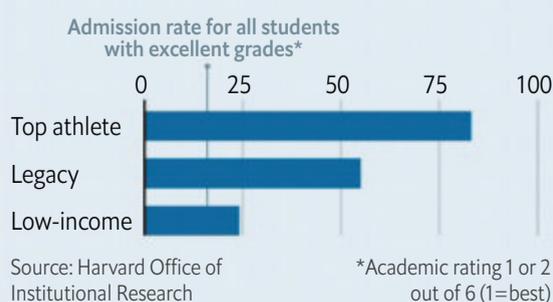
No combination of money and alumni clout, however powerful, will get a thick kid a place at a good university. University administrators point out that legacy applicants' SAT scores tend to be higher than average—not surprising, since they tend to be richer and therefore better-prepared. In an interview with the *Crimson*, Mr Fitzsimmons referred to legacy as a "tip" which, other things being substantially equal, could win an applicant a place. But recent data suggest it is more than that. Michael Hurwitz, then at Harvard, calculated that, controlling for all relevant characteristics, being related to an alumnus of one of America's top 30 universities increased an applicant's chance threefold. Thomas Espenshade at Princeton found that it was the equivalent of 160 points on a SAT score where the maximum is 1,600.

The trial has forced Harvard to publicise its own numbers (see chart). The biggest advantage goes to athletes, but they are sometimes the same people as legacies—as some of the sports which ease students in (lacrosse, rowing, golf) suggest. "The best donors", says an insider, "are sports scholars who went on to Harvard Business School. They 'bleed crimson'."

Universities that favour legacy applicants say doing so helps pay for need-blind admissions, under which universities pay the bills of poorer students. But as Richard Reeves of the Brookings Institution points out, "they admit so few poor people that this is pocket change for them." According ▶▶

Thumbing the scales

United States, probability that a student with excellent grades* gets admitted into Harvard 2009-16, by group, %



▶ to Harvard's Raj Chetty, the university has 14 times as many students from the top than the bottom economic quintile. Legacies take places that might go to poorer people: Mimi Doe of Top Tier Admissions points out that half of places at top universities are fenced off by racial, athletic and legacy preferences. "For students who don't have any interesting 'hooks' on their cvs, acceptance rates of 10% of applicants come down to more like 5%."

MIT, which does not favour legacies, has need-blind admissions. A study of 100 universities found that "the presence of legacy preference policies does not result in significantly higher alumni giving"; those with legacy preference got more money from alumni, but that was because they had richer alumni. Abandoning the practice might be in the universities' interest. A study into the "child-cycle of alumni giving" found that donations increased when alumni's children reached their early teens, and then dropped to below their original level when the child was turned down. Hell hath no fury like an alumnus whose child has been scorned.

Some institutions, including the University of California, Berkeley, the University of California, Los Angeles and Texas A&M, have abandoned the practice. More than two-thirds of Americans are against it. Mr Kahlenberg notes that universities are increasingly unpopular among Americans. "Some of this has to do with the idea that these are liberal bastions where students are being indoctrinated. But it is also about the fact that these are seen as gated communities where the privileged protect their positions in society." A majority of the admissions directors surveyed by *Inside Higher Ed* opposed it, including 11% of those who practised it. The *Crimson* wants it ended. "It would make it a happier place," says a Harvard insider. "So many of the students have impostor syndrome."

Ron Wyden, a Democratic senator, plans to help legacy preference on its way by introducing a bill to limit tax breaks on donations before or while a child is enrolled. It is a condition of tax exemption that a donor should get no direct benefit from a donation; and although universities are very careful to make it clear that there is no quid pro quo, their defence of legacy preference—that it raises money—implicitly admits the connection.

But the likeliest impetus for change is the affirmative-action trial. "At present the universities can say they take into account lots of factors, including legacies," says Mr Kahlenberg. "If you no longer have the minorities then it becomes harder to justify." That, indeed, is what happened at the University of California and at Texas A&M: when racial preferences were ended, legacy preferences looked even more egregiously unfair, and were binned. ■



Voter suppression

Was it stolen?

WASHINGTON, DC

Democrats query the handling of elections in Georgia

STACEY ABRAMS, a Democrat who narrowly failed in her bid last year to become the first black governor of Georgia, does not concede that she lost the election. "I concede I'm not the governor of Georgia," she told a reporter from the Associated Press on March 19th. But she blamed her failure to come first in the poll on cheating. She says that voter suppression in Georgia kept her supporters—mostly blacks—away from the polls.

She is hardly alone in believing that. On March 6th Democrats in the House of Representatives launched an investigation into "voter registration, voter access, and other matters affecting the ability of people in Georgia to exercise their right to vote". The House Oversight Committee has requested documents from the declared winner of the poll, Brian Kemp—who, as secretary of state, supervised his own campaign—in order to evaluate his impartiality, the use of voting machines and the changing of polling places. There is no doubt that Georgia made voting tough for some. But are critics right in thinking that this was decisive in Mr Kemp's victory?

Some claims can be dismissed out of hand. At an event in Selma, Alabama earlier this month, Hillary Clinton claimed that Georgia had fewer registered voters in 2016 than in 2012. That is straightforwardly untrue. According to data from Georgia's secretary of state, fewer than 6.1m Georgians

registered to vote in the 2012 general election; in 2016, that number had climbed to over 6.6m, and by 2018 it reached nearly 7m. (Mrs Clinton, too, thinks she is a victim: she also made a dodgy claim about voters being turned away from polls in Wisconsin, a state she lost in 2016.)

The House Oversight Committee is interested in the "exact match" voter-validation programme that was designed to ensure that voters' registration applications matched the information that the state had on file. In 2018 a US district judge, Eleanor Ross, said that raised "grave concerns" about disenfranchising minority voters vastly more often than whites. Michael McDonald, an academic who has been involved in voting-rights litigation in the past, identified the programme as one of the more consequential examples of voter suppression in Georgia. But in the end poll workers were not allowed to use it to turn voters away from the voting booths, because of Judge Ross's ruling. The number of possibly disenfranchised voters was close to 50,000; Mr Kemp's margin was 55,000. Mr McDonald says that Ms Abrams's claims "are very tenuous".

It could be that changing the location of polling places in predominantly black precincts hurt Ms Abrams's ability to win. Georgia closed more than 200 polling places during Mr Kemp's tenure as secretary of state. Research by Henry Brady and John McNulty, both political scientists, found that changing the site of polling places in Los Angeles County had significant negative effects on voter turnout in California's election for governor in 2003. They estimate that there was a 1.85% reduction in turnout in precincts where polling places changed. So this strategy "could be used by an unscrupulous politician or registrar to manipulate an election".

Between 2014 and 2018, turnout among blacks in Georgia (some 90% of whom voted for Ms Abrams) did not decline but in fact leapt, from 750,000 to 1.1m. For Mr Kemp's lead to disappear, you have to assume that had he not closed down polling places, it would have been even higher, by about 6%. That is possible but perhaps generous to Ms Abrams.

In the end, it should not matter whether voter suppression was enough to keep Ms Abrams out of a job. As she herself has pointed out, "voter suppression is insidious". Even if it does not make the difference between a victory or a defeat, it still deprives citizens of their rights. Mitch McConnell, the Republican Senate majority leader, commented in January that a bill intended to increase voter turnout was a "political power grab" designed to "rewrite the rules to favour [Democrats] and their friends". Perhaps he should explain why the rules as they are now seem mostly to benefit Republicans. ■

The Supreme Court

Kafkaesque justice

WASHINGTON, DC

A Supreme Court ruling threatens green-card holders with arrest

TOWARDS THE end of Franz Kafka's "The Trial", Josef K, the protagonist, gets some advice. There is no such thing as a definite acquittal, the court artist tells him; the court "forgets nothing". Whenever they like, the authorities can renew their charges against the released defendant. When they do, Kafka writes, "his life as a free man is at an end."

American law emulated Kafka on March 19th when a 5-4 Supreme Court majority ruled that many immigrants who had been held in criminal custody are subject to mandatory detention by Immigration and Control Enforcement (ICE) at any time after their release. Eduardo Vega Padilla, one of the litigants in *Nielsen v Preap*, came to America in the 1960s as an infant. In the late 1990s he was twice convicted for possessing drugs and, in 2002, for illegally (as a previous felon) owning a firearm. In 2013, 11 years after finishing his six-month sentence for the gun conviction, Mr Padilla found himself on the brink of being deported to Mexico, a country he left when he was 16 months old.

The question the justices tackled in *Preap* was how to interpret a law of 1996 requiring the detention of certain immigrants "when the alien is released" from criminal custody. The Ninth Circuit Court of Appeals ruled in 2016 that green-card holders may not be nabbed and held indefinitely without a bail hearing long after being released. The law, the appeals court said, permitted ICE to swoop in only at the time of the immigrant's release. If authorities wanted to detain an alien later, they would have to give him a hearing.

For Justice Samuel Alito, author of the majority in the latest ruling, that reading is "hard to swallow". Requiring that the "alien must be arrested on the day he walks out of jail" unreasonably constrains ICE authority, he says. The law would amount to "nonsense" if it were understood to favour Mr Padilla and his fellow plaintiffs. Mandatory detention would be "downright incoherent" if it did not require the detention of every alien who has committed an offence listed, at any time.

In dissent, Justice Stephen Breyer wrote that the case concerns "basic American legal values". It has "consequences" for green-card holders who have "established families and put down roots in a community". The ruling threatens to deprive people of their liberty without "due process of law"

and to strip them of "the longstanding right of virtually all persons to receive a bail hearing" when held in custody. A six-month limit on re-arrest, Justice Breyer wrote, is reasonable and squares with other detention time frames.

A long-running disagreement fuels the split between the court's liberals and conservatives: how to read statutes. Whereas the Alito majority in *Preap* takes a magnifying glass to the words on the page and strives to understand them without reference to anything else—an approach known as "textualism"—the Breyer dissent takes a broader view, considering the purposes that lie behind the law. "I would have thought that Congress...did not intend to allow the government to apprehend persons years after their release from prison," Justice Breyer wrote. ■

Recycling markets

A rubbish idea

NEW YORK

New deposits on drinks containers may, perversely, hurt recycling

JUAN IS GRATEFUL for New York's bottle bill, which imposes a refundable nickel deposit on bottles and cans of water, soda and beer. He and his wife earn about \$500 a week by collecting empties from recycling bins, bars and restaurants in Bushwick, Brooklyn, which they trade for money at a local redemption centre. Their jangling cart is among the many that helped the state recycle over 5bn drinks containers in 2016. New York's governor, Andrew Cuomo, now wants to expand the bill to cover most non-alcoholic containers, to help fight litter and boost recycling throughout the state. Juan and his wife are delighted. Companies that handle the state's recycling, however, are howling.

Most municipal recycling programmes work because the costs of collecting and sorting recyclables are largely offset by the value of these materials on commodity markets. But China, once the leading buyer of America's recyclables, upended these markets last year by banning most waste imports. Prices for scrap paper, cardboard and plastic have plunged. Recycling companies that once turned a tidy profit are now losing money and sending material to landfills. Local governments are debating whether to cancel their recycling services or charge residents for what had always been free.

Some argue that bottle bills offer a handy way to boost recycling without adding real costs. In the ten states where container deposits are already in effect—most

of them introduced well before municipal recycling began—they reduce litter, raise recovery rates and create a cleaner stream of recyclables, says Susan Collins of the Container Recycling Institute, an advocacy group. Unredeemed deposits often help pad state coffers. New York, for example, earns around \$100m in revenue from its bottle bill every year.

The problem is that these bills encourage people to divert valuable materials, like aluminium and PET plastic, away from kerbside bins to a separate system run primarily by beverage manufacturers and distributors. This not only creates inefficiencies (more trucks, more bureaucracy), but also shrinks revenues for recycling companies left with less valuable materials.

Tom Outerbridge of SIMS, which has a long-term contract to process all the metal, glass and plastic collected by New York City's sanitation department, says New York's current bill, introduced in 1982, already cuts the value of every tonne of material SIMS receives by \$15-30. He estimates that the governor's expanded bill could cost another \$30 per tonne. The New York State Association for Reduction, Reuse and Recycling estimates that the expanded bill would cost recyclers \$10m in lost commodity value, on top of \$42m in new costs because of China-related turmoil.

Instead of putting a bounty on materials that recycling companies need to stay afloat, Eric Goldstein of the Natural Resources Defence Council, a conservation group, recommends placing redemption values on things that are difficult to recycle, such as more glass (wine and liquor bottles, for example), batteries, paints and carpets. Collecting these materials will not be easy, but at least it will spare local recycling operators a financial headache. ■



The day after the party

Lexington | Bet on O'Rourke

The Texan Democrat has a rare ability to annoy his opponents and control his own narrative



LESS THAN a week into his presidential campaign, Beto O'Rourke is stirring strong emotions. Among the thousands who have flocked to hear the skateboarding, bilingual Texan in the small rallies he has already held in Iowa, Michigan, Ohio, Pennsylvania and New Hampshire, they seem to be largely positive. Youngish, tall and more charismatic than any of his rivals, as he demonstrated during his losing Senate campaign last year, the 46-year-old former congressman is Democratic box office.

During a pit-stop at Penn State University, in central Pennsylvania, midway between Iowa and New Hampshire, he received half the adulation Senator Bernie Sanders would have got, with a tenth of the planning. There is a gushier edge to Betomania, too. Like Swede Levov, George Clooney and, yes, Barack Obama, whose pensive pauses, fluid perorations and optimism Mr O'Rourke has repurposed for a dress-down generation, he has passed the first test of American heroism: women and men seem equally prone to admire or love him. As he tried to exit the crush of a couple of thousand students, while standing head and shoulder above them, your columnist overheard one express amorous thoughts for him, while another loudly invited the candidate to join his punk band.

Yet Mr O'Rourke, whose music is these days confined to air-drumming behind the wheel, has also attracted more (and nastier) criticism than his dozen rivals put together. His unofficial campaign announcement—a cover-interview in *Vanity Fair*, with pictures by Annie Leibovitz—was panned as preening and entitled. Commentators on the right have piled into his underwhelming record, as a once-aimless youth with a drunk-driving charge, who married money, then served three low-key terms in the House of Representatives. Those on the left were scandalised when Mr O'Rourke, in an early stump speech, made a joke of his absentee fathering. And there is a bipartisan consensus that Mr O'Rourke, who has launched himself at America in a self-driven rental truck, with tearaway passion, no campaign manager and few firm policy ideas, shows an unbecoming want of seriousness. “When are we going to get an actual policy from you, instead of platitudes and nice stories?” asked a Sanders supporter in the crowd at Penn State.

Much of this is warranted. Mr O'Rourke is an undistinguished Democratic front-runner and his sketchiness on large areas of

policy seems almost wilful. Surely, on the journey of introspection that followed his Texas defeat, during which Mr O'Rourke ate sacred dirt in New Mexico and blogged religiously, he could have found time to form a view on Brexit? Yet he says he has no opinion on it. And he has little more to say on the environmental and other economic policies he claims to prioritise. Having sounded unenthusiastic about the Green New Deal preached by left-wingers, he was asked in Pennsylvania how he would change it. His reply included much emphasis on the seriousness of the climate emergency (as if his audience needed convincing on that), a joke about not wanting to be seen as one of the *bendejos* who failed to deal with it, a shout-out to Texan wind turbines, and little else.

Yet it is possible to exaggerate Mr O'Rourke's cluelessness. He has conventional progressive positions on criminal justice and immigration reform, and a more interesting emerging one on health care. Having backed Medicare for all, he now wants to expand it while protecting the private-insurance market. As most of his rivals rush to the left, that is a notable statement of realism. It is also moot whether Mr O'Rourke's hot air on climate change is less serious than the hallucination masquerading as policy that is the Green New Deal. Mr O'Rourke has been so condemned mainly because his diverse critics view him as a threat.

For professional politickers—the consultants, pollsters and columnists who shape political news—his campaign is heretical. He disdains polling, depicts his rallies as brainstorming sessions and generates and distributes much of his own media. And his methods work. His slim defeat in Texas was not the stunning achievement he claims, yet it gave him a national profile and Sanders-esque command of online fundraising. His methods also work for reasons none of his Democratic rivals looks able to replicate.

In place of policy smarts, Mr O'Rourke projects a mood that many find appealing. His optimistic talk of “America's genius” is familiar; yet mingled with a rarer call for humility and atonement. Though America's shortcomings, its injustices and political dysfunction, are experienced unevenly, fixing them starts with acknowledging that everyone is responsible. Not least the candidate: “Thank you for the accountability,” he replied sadly, when asked to explain the mismatch between his idealistic rhetoric and more pragmatic voting record. It was almost moving. Mr O'Rourke, who is reading Joseph Campbell's treatise on heroism, “The Power of Myth”, is not only the master of his narrative because of his quirkiness. It is also because his frailties are as integral to it as his inspirational strengths. He comes across as a reformed drifter vying to turn a personal quest for self-improvement into a political cause.

El Paso on that

If he fails, it will be because Democrats find his shortcomings too risky. Mr Obama, one notes, had to convince them he had serious policy chops besides the feel-good. Yet Democrats face bigger challenges today than they did back then, to which Mr O'Rourke offers a possibly flawed yet perhaps unrivalled answer.

The hard left is stronger—which makes his Obama-like ability to cloak his pragmatism in soaring rhetoric and a few progressive pledges especially valuable. And Donald Trump, who tries to turn any contest into a brawl, is a fierce opponent. A Democratic challenger who could not merely dust himself off, as Mr Obama could, but make his patience and fortitude seem more important than the president's boorishness, as Mr O'Rourke would try to do, might be awkward. That the lanky Texan would then get back on his skateboard, while vlogging about it, would be another plus. ■



Trudeau's woes

Down, not out

OTTAWA

A new budget seems unlikely to make voters forget a swirling scandal

WHEN JUSTIN TRUDEAU formed his first cabinet after winning an election in 2015, it was a triumphant affair. The prime-minister-elect marched to Rideau Hall, home to the Queen's representative in Canada, like a conquering hero, surrounded by beaming ministers. On March 18th, half a political lifetime later, he walked to the hall with just his security detail to make the third change to his cabinet this year. The usually media-friendly Mr Trudeau did not stop. Waiting reporters thought they heard him mutter "Having a good day..." as he slipped in by a side door.

There have not been many good days for the prime minister since the publication in February of allegations that he and his officials put pressure on the then attorney-general to fine rather than prosecute SNC-Lavalin, a large construction firm in Quebec accused of bribery. In their wake has come a slew of resignations. Jody Wilson-Raybould, the former attorney-general, left the cabinet on February 12th, followed by Jane Philpott, a respected minister who later quit in sympathy. Gerry Butts, Mr Trudeau's senior adviser, took responsibility

for "a communication breakdown" and resigned. This week Michael Wernick, Canada's highest-ranking civil servant, told Mr Trudeau he too would go, since he is no longer trusted by the opposition.

It has been quite a comedown for the Liberal leader, whose pre-election promises of openness and transparency are being thrown back in his face by Conservative opponents scenting victory in a federal election due on October 21st. But it is too soon to count Mr Trudeau out.

The case against him and his officials is that they attempted to obstruct justice by urging Ms Wilson-Raybould to offer SNC-Lavalin a deal under which the company would pay a fine and agree to mend its ways in order to avoid a trial. She told the parliamentary justice committee, which has been investigating the case, that she did indeed feel pressure. But she added that the harassment, though inappropriate, was

not illegal. (The attorney-general, who is a member of the cabinet, is not supposed to be influenced by political considerations.) Mr Trudeau admits he raised concerns about job losses but did not direct Ms Wilson-Raybould to change her decision. The case is still going to trial.

The details may be murky but, says Darrell Bricker of Ipsos, a polling firm, voters smell a rat. An average of recent polls shows the Liberals behind the Conservatives, by 33% to 35%. Sensing they are on to a winner, the Conservatives have been demanding that Ms Wilson-Raybould come back to parliament to testify again. (That hope died on March 19th when the Liberals used their majority to end the committee's investigation.) The Conservative #LetHerSpeak campaign on social media targets another of Mr Trudeau's soft spots. After championing the rights of women and indigenous peoples, he now finds himself at daggers drawn with Ms Wilson-Raybould, who is both female and a member of the We Wai Kai nation.

But the Conservative opposition is not benefiting as much as might be expected. It has its own vulnerabilities. The party has tacked rightward under its leader, Andrew Scheer, after a dissident member, Maxime Bernier, set up a new party even further to the right. Before the SNC-Lavalin scandal, the Conservatives had been hammering the government for letting too many asylum-seekers cross the border with the United States. But Mr Scheer is finding it hard to appeal to anti-immigrant supporters ►►

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without offending the large majority of Canadians who back immigration. He got into trouble last month for sharing a platform with Faith Goldy, a controversial white nationalist.

Economic issues tend to be more important in Canadian elections than political controversies. Here, Mr Trudeau's record is mixed. Unemployment is close to a 40-year low. Workforce participation is rising for women, young people and immigrants. The introduction of an income-tested child benefit in 2016 has lifted almost 300,000 children out of poverty. But

growth seems to have ground to a halt (GDP rose by a miserable 0.4% at an annualised rate in the last quarter of 2018) and household debt is at a record high.

The budget on March 19th was the government's last chance before the election to offer voters some goodies—and persuade them that it knows what it is doing. It duly took the first step towards a national “pharmacare” plan (to make prescription drugs cheaper), offered first-time owners a new incentive to buy a house, increased money for municipal infrastructure, lowered interest rates on student loans and so

on. Thanks to an unexpected increase in tax revenues, the government still was able to keep the budget deficit largely unchanged and the debt-to-GDP ratio stable.

If the Liberals had hoped the budget would distract the opposition from the SNC-Lavalin scandal, however, they were disappointed. The Conservatives chanted “let her speak” throughout the early part of the budget speech. The broader question is whether, on election day, voters will focus on the scandal or on the economy and budget. At the moment, they are cooling on Mr Trudeau without warming to Mr Scheer. ■

Bello Mausoleum of broken institutions



Why Prosur is not the way to unite South America

IT IS NOT often that a country pulls out of an international organisation of which it is the host. Yet that is what Ecuador's president, Lenín Moreno, did on March 13th. Ecuador joined six other countries who have withdrawn from the South American Union (Unasur), a talking shop which once included all 12 of the continent's nations, criticising it for the “perverse politicking of the self-styled 21st-century socialists”. For good measure he said he wants his country to repossess Unasur's gleaming, cantilevered \$65m headquarters near Quito, opened in 2014 and paid for by his predecessor, Rafael Correa, calling it “an ode to waste”. He wants to turn it into a university for indigenous people.

Mr Moreno is among several South American presidents who may go to Santiago on March 22nd to launch a replacement for Unasur called Prosur. This is a brainchild of Iván Duque, Colombia's new conservative president, and his Chilean counterpart, Sebastián Piñera, of the centre-right. Unveiling the idea in January, Mr Duque said that rather than a bureaucratic organisation, Prosur will be a “co-ordination mechanism” supporting democracy and the market economy. Mr Piñera has invited all but one of the 12 countries. The exception is Venezuela.

Prosur is a sign of the changing political climate in South America. After a period of hegemony for the left, of various strands, the region has swung to the right in recent elections. Yet, far from being an answer to regional disunity, Prosur looks like a restatement of the problem: that in Latin America regional institutions have become hostage to ideology and ephemeral political alignments. They rarely work to forward the co-operation that would be in the lasting

interest of all their members.

It was precisely these faults that doomed Unasur, a good idea traduced by misguided political leadership. Its origins lay in a Brazilian wish to talk about cross-border transport and energy projects. By the time it was formally constituted by treaty in 2008, those practical aims had succumbed to the overlapping ambitions of two leftist presidents, Brazil's Luiz Inácio Lula da Silva and Venezuela's Hugo Chávez, to create a body devoted to political solidarity and defence co-operation, implicitly against the United States.

Unasur's last secretary-general, Ernesto Samper, a former Colombian president, told Bello in 2015 that the body was the reflection of “a political scenario” in which most governments were of the left. Its commitment to democracy in the region, he said, was to “the real validity of social rights”—a formula that echoed Cuban and Venezuelan propaganda. Venezuela's opposition and its many supporters came to see Mr Samper as a stooge for the Venezuelan government. When Mr Samper's term ended, a broad coalition of countries

proposed José Octavio Bordón, a shrewd centrist politician and diplomat from Argentina, as his replacement. Venezuela vetoed him. That was the final straw.

Unasur's fate is a symbol of the deep fracture caused by Venezuela's regime and its remaining friends in South America. It is also a rebuke to Brazilian foreign policy under Lula and his successor, Dilma Rousseff. Yet walking away from Unasur rather than trying to bypass Venezuela and reform the organisation looks like a mistake. “You don't overcome the fracture by setting up a new organisation composed only of your friends,” says a former South American foreign minister, who worries about the “improvisation” it embodies.

Many South American officials who have no sympathy for *chavista* Venezuela are cool towards Prosur. Several countries may stay away. Pressing Venezuela to return to democracy is a task that the region has entrusted to the Lima group, an ad hoc body of 14 countries that works reasonably well. That it includes Canada is hardly an existential problem. And as described by its founders, Prosur will lack the heft to do the job Unasur should have done (but didn't) of working for practical measures of integration—especially by acting as a bridge between the two economic blocs in South America, Mercosur and the Pacific Alliance.

As for Unasur, it may not actually die, but join Latin America's clutter of the moribund. Laurence Whitehead of Oxford University has written that the penchant of Latin America's elites for the latest ideological fashion has turned the region into a “mausoleum of modernities”. That now applies to its institutions of integration. This penchant is a luxury that a region which is falling behind economically cannot afford.





Kazakhstan

A showman exits

ALMATY

The president resigns, but clearly plans to keep pulling strings

ONCE A STRONGMAN has been in power for 30 years, it is reasonable to assume he will leave office only in a coup or a coffin. But Nursultan Nazarbayev, the 78-year-old who has run Kazakhstan since 1989, is trying to find a third way. On March 19th he took to the airwaves to announce his retirement as president of the oil-rich Central Asian country. The announcement marks the end of an era, not just for Kazakhstan but for the region: Mr Nazarbayev was its last Soviet-era leader left in power. When the former steelworker ascended to the leadership, Kazakhstan was still part of the Soviet Union. He presided over independence in 1991 and had governed ever since.

A showman to the last, Mr Nazarbayev signed his resignation decree on live television. On March 20th Kassym-Zhomart Tokayev, the 65-year-old chairman of the Senate, was sworn in for the rest of Mr Nazarbayev's term, as the constitution stipulates. Mr Tokayev immediately ordered Astana, the vainglorious capital Mr Nazarbayev founded, rechristened "Nursultan" in his honour. Shymkent, Kazakhstan's third-largest city, rushed to rename its main street "Nazarbayev".

Rumours had long swirled that Mr Nazarbayev was preparing to step down. Yet

his physical and mental health seem robust; there had been no inkling the announcement was coming this week. Fully half of Kazakhstan's 18m citizens have never known any other leader. Mr Nazarbayev said that it was time to hand power to a younger generation. But his retirement is less a graceful bowing-out than a manoeuvre designed to allow him to micromanage the transition to a new leader, just as he has micromanaged every other aspect of Kazakh politics for so many years.

Gone but not forgotten

Mr Nazarbayev has a special legal status that grants him considerable post-retirement powers. The Leader of the Nation (his official title) will still chair the Security Council, which gives him direct sway over the armed forces. He also enjoys the right to intervene in policymaking for the rest of his life. He is immune from prosecution for actions committed in office. His and his family's assets cannot be seized. His eldest daughter, Dariga Nazarbayeva, replaced Mr Tokayev as chairman of the Senate, placing her next in line to the presidency.

By securing Kazakhstan's independence, Mr Nazarbayev literally put it on the map, as he pointed out in his resignation

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speech. He has kept it there by maintaining cordial ties with his giant neighbours, Russia and China, as well as with America. Mr Nazarbayev also expressed pride at the relative harmony among the more-than-100 ethnic groups in Kazakhstan. He took credit, too, for dragging the country out of the economic stagnation of the post-Soviet period into petrodollar-fuelled prosperity, although he failed to mention that his cronies have benefited more than his people. Mr Nazarbayev's most brazen claim was that he had built a democracy, despite presiding over three decades of rigged elections, jailed critics and muzzled media.

Elections are due to be held at the end of next year, although an early vote is not ruled out. Mr Nazarbayev did not name a preferred candidate, but it seems inconceivable that he does not have one in mind. That could be Mr Tokayev or another, younger lieutenant, such as Askar Mamin, 53, who was promoted to prime minister in a recent cabinet reshuffle. If he intends his daughter to become president, he has been careful not to signal it openly.

The new president will certainly not emerge from the ranks of the opposition, since Mr Nazarbayev has hounded it out of existence. His preferred successor will almost certainly saunter into office after a rubberstamp election—although perhaps not with the 98% of the vote that Mr Nazarbayev is supposed to have won last time. Presumably, Mr Nazarbayev does not intend a big political opening, or he would have started one while still in office himself. As he reassured his people when announcing his momentous decision: "I will be staying with you." ■

Taiwanese politics

Splittists

TAIPEI

A former underling launches a challenge to the president

AS TAIWAN'S FIRST female president, Tsai Ing-wen is a trailblazer. She is well-liked abroad for her reluctance to pick fights with China. But she is not popular at home. Recent polls put her approval rating below 30%. Her bid for re-election next year, already iffy, just got iffier. Lai Ching-te, her former prime minister, has declared that he will challenge Ms Tsai for the presidential nomination of the Democratic Progressive Party (DPP). It is the first time an incumbent president in Taiwan has been subjected to a primary. And the contest may anger China, since Mr Lai is a more vocal supporter than Ms Tsai of the idea that Taiwan should formally declare itself to be a distinct country from China—a move China says would be grounds for war.

"Taiwan doesn't want to be a second Hong Kong or Tibet," declared Mr Lai as he registered for the primary this week, insinuating that Ms Tsai is not doing enough to ensure Taiwan's independence. The DPP was thrashed in municipal elections in November by the Kuomintang (KMT), the main opposition party, which advocates warmer relations with China. Voters seemed disappointed that Ms Tsai's efforts to stimulate the economy have had scant success. Growth is slowing. Wages have been stagnant for decades.

Following the defeat in November, Ms Tsai stepped down as leader of the DPP. A month later Mr Lai, a former mayor of the southern city of Tainan, resigned as prime minister, spurning Ms Tsai's entreaties for him to stay. The primary will involve the two candidates giving televised presentations of their platforms, after which the party conducts an opinion poll of a sample of the whole electorate. The more popular candidate wins the nomination. The results will be announced on April 17th.

DPP activists had been panicking, as Ms Tsai has been trailing badly in the polls. They feared not only a further electoral setback, but one that would have put the government into the hands of a China-friendly leader just as China is pressing Taiwan to begin talks on unification. Some advocates of independence, fed up with Ms Tsai's caution, are jubilant at Mr Lai's announcement, both because they think Mr Lai has a better chance of winning and because they think he might be more assertive.

Ms Tsai's supporters, meanwhile, are arguing that the primary could split the party

Personal seals in Japan

For the chop

TOKYO

Will digitisation stamp out a national icon?

DUST SETTLES over the shelves in Fujio Kawasaki's shop. Customers once sought out this corner of Tokyo for quality *hanko*, the personal seals Japanese use as signatures. Among the goods on display is a seal carved from elephant tusk, a relic from a bygone era. Nobody will fork out ¥80,000 (\$720) for such items these days, says Mr Kawasaki. Now he fears the government will force him out of business altogether.

Hanko are a feature of life in Japan. Every adult—even the emperor—has one. They are required to buy a car, rent an apartment or get married. Managers use them to sign off on the endless faxes, memos and other antiquated documents that continue to circulate in offices.

All this paperwork makes Japanese offices among the least efficient in the rich world. Dogged by low productivity and hence poor profitability, Japan's three biggest banks have begun allowing customers to open accounts without *hanko*. Most Japanese will soon be pressing fingers to screens instead of wood to paper, predicts Noriaki Maruyama, president of an online bank. Local governments are starting to process transactions electronically, too. The Digital First Bill, currently zipping through parliament, seeks to do away with yet more forms and stamps.

The rationale for the legislation is simple and sound, argues Takuya Hirai, minister of science and technology. Japanese people waste far too much time filling in forms, he says; the shrinking population can no longer afford to maintain this bloated paper-based bureaucracy. Mr Hirai has little sympathy for the sentimental national attachment to personal seals.

The *hanko* industry has reacted with an emotional letter, pleading with Mr



Emotionally wooden

Hirai to scrap his plans. The bill threatens the livelihood of over 10,000 seal shops like Mr Kawasaki's, it argues. *Hanko* are far superior to "Western-style signatures", the letter says, because bosses can save time by entrusting their seals to proxies, who can then approve documents on their behalf. "We are proud of how this system contributed to Japan's post-war economic growth," it concludes. Mr Kawasaki thinks the government's effort to diminish paperwork is a plot to do away with the sort of paper-trails that have been used to hold it to account in several recent scandals.

Many Japanese seem ready to let go, however. The use of signatures had been spreading even before the government got involved. Mr Kawasaki's shop is more than 80 years old. His father founded it. But it will not survive to the next generation, Mr Kawasaki laments.

and are making agonised calls for unity, by which they seem to mean Mr Lai's withdrawal. Chen Chi-mai, the deputy prime minister and a supporter of Ms Tsai, argued in a Facebook post that China's growing assertiveness makes divisions within the party especially dangerous. "The 2020 election will determine whether Taiwan survives or is extinguished," he said.

Luckily for the DPP, the KMT also has no anointed candidate and its primary is still some months away. A former mayor of New Taipei City, Eric Chu, and a former speaker of parliament, Wang Jin-pyng, have both

said they will run. The election will probably also feature an independent candidate, Ko Wen-je, the popular mayor of Taipei.

Inevitably, China will be front and centre in the campaign. The authorities across the Taiwan Strait probably revile Mr Lai even more than they do Ms Tsai. That might encourage them to ease the pressure on Taiwan a bit over the next few months. The Chinese government knows from experience that attempts to intimidate Taiwanese voters tend to backfire, prompting them to back the candidate most hostile to its cherished goal of reunification. ■

Mumbai's bridges

Crumbling

MUMBAI

A tragedy exposes neglect and disarray in the city government

THE TEEMING commuter trains in Mumbai have received a modest overhaul in recent years. Coaches have been redesigned to offer better ventilation; the hard, angular seats have been replaced with more comfortable ones; and a plan to air-condition the heaving carriages is under way. But as soon as the 8m-odd passengers who ride the trains every day arrive at their destination, they face infrastructure that is as neglected as ever, in the form of the pedestrian bridges by which they cross tracks or busy roads near the stations.

On March 14th a big part of one such overpass collapsed outside Shivaji Terminus, one of the city's busiest stations, killing six people and injuring 31. The toll could have been worse: the plunging debris did not harm any passengers in vehicles below as a red light happened to be holding traffic back at the fateful moment.

"It was terrible," says a taxi driver who witnessed the tragedy. Yet there have been many accidents like it. In 2017, 22 commuters were crushed to death in a stampede on another railway footbridge. It was barely six feet wide, yet carried over 100,000 people every rush hour. More than 30 lives have been lost in other accidents involving overpasses over the past two years.

Last year an audit found that 18 of the 296 bridges in the city were dangerous. That is probably an underestimate. The bridge that failed last week had been judged safe by inspectors, who thought it needed only "minor repairs".

The Bharatiya Janata Party, which is part of the coalition that runs the municipal government, disingenuously called the tragedy "a natural calamity". The city's administrators gave an inkling of their attitude when they first claimed that the railway was responsible for maintaining the bridge before conceding that they were, in fact, in charge. They then pointed the finger at the inspector, from an external audit firm. He, in turn, claimed that wet paint and newly laid tiles had prevented him from inspecting the bridge properly. He has been arrested. The construction firm behind the refurbishment in question has also been accused of "substandard repair work". The city government had blacklisted it in 2017, accusing it of inflating bills and using adulterated material to build roads. Yet it was inexplicably still left in charge of maintaining the overpass.

"There is no inter-agency co-ordination

and the entire system is designed for kick-backs," gripes Sayli Udas-Mankikar of Observer Research Foundation, a local think-tank. Vital information about the materials used to build older bridges is often missing. Contracts are awarded to the lowest bidder, regardless of the quality of their work. "The process is flawed. If you pay peanuts, you will get monkeys. And our lives are at stake," says Rajiv Mishra, an urban planner, who used to cross the defunct bridge four times a day.

The city is conducting fresh inspections of some 150 bridges. On March 22nd a local court will hear a petition demanding that the city government do more to strengthen the rickety ones. Opposition leaders have called for more radical action. They want the city and state governments to ditch a multi-billion-dollar bullet-train project until they can get the basics right. ■

North Korean propaganda

Deity in a T-shirt

SEOUL

Kim Jong Un's apologists are changing their style, if not their tune

NORTH KOREANS did not hear about Kim Jong Un's first known visit to China, only a year ago, until their dictator was safely back home. Even then, *Rodong Sinmun*, a government mouthpiece, tersely informed readers that the "supreme leader" had "unofficially" called on his Chinese counterpart. Yet last month, when Mr Kim travelled to Vietnam for his second meeting with Donald Trump, America's president, the coverage was breathless. State



Where did all the evil imperialists go?

television broadcast daily updates about Mr Kim's journey. *Rodong* splashed on the red-carpet welcome Mr Kim received, interspersed with stories about how much he was missed at home. It was the closest the North's slow-moving propaganda outlets come to rolling coverage.

Just as remarkable is how the North's media have begun talking about America. Histrionic tirades about "evil imperialists" used to be their bread and butter. Just over a year ago *Rodong Sinmun* called Mr Trump a "crazy old bastard". Over the past few months such abuse has all but disappeared. Apart from a rebuke of "gangster-like" Mike Pompeo, America's secretary of state, the portrayal of America has softened beyond recognition. Even after Mr Trump walked out of the summit in Vietnam, the North's media were emollient.

The propaganda machine's new tone is not a sign that the North is changing its policies in any profound sense, alas. But in a place where precious little has changed for decades, the shift in public-relations strategy is nonetheless remarkable. At the very least, it shows that Mr Kim is willing to modernise. And it suggests a modest degree of commitment to talks, even as North Korean officials send contrary signals.

The role of North Korean state media is to glorify Mr Kim. The message—that he works tirelessly and brilliantly for the betterment of his people—does not vary much, regardless of whether Mr Kim is meeting a foreign leader or giving "on-the-spot guidance" at state-owned firms, where he opines on everything from desirable shoe colours to potato-farming.

But the media are beginning to depict Mr Kim in a less formal and archaic way, says Jieun Baek of Oxford University. "It's less stiff, less patriarchal—you occasionally see him with his wife, or wearing a T-shirt." During his New Year address, Mr Kim sported a Western-style suit and tie and delivered his speech from a room that bore a certain likeness to a Victorian college library, complete with armchairs and imposing bookshelves.

The change in the North's PR tactics has been most visible in the portrayal of Mr Kim's trips abroad. Both of his big summits with Moon Jae-in, South Korea's president, were heavily covered by state media. *Rodong Sinmun* carried lots of pictures of the two leaders' handshake across the dividing line separating their two countries in the heavily fortified "demilitarised zone" in April and their ascent of Mount Paektu in northern North Korea in September. Mr Kim's first meeting with Mr Trump in Singapore in June received similarly prominent treatment. One *Rodong* spread emphasised Mr Kim's playfulness, showing him smiling and laughing against Singapore's skyline and waving to bystanders taking snaps with their mobiles. Others fo- ▶▶

► cused on foreign leaders' reverence for Mr Kim: Mr Trump looks almost servile in some pictures the paper has printed.

Kim Il-gi, an expert on North Korea at INSS, a think-tank funded by the South Korean government, says the displays are supposed to showcase confidence, marking a departure from the North's customary paranoia about assassination attempts abroad or revolt at home. He says Mr Kim's sister, Kim Yo Jong, who heads the North's propaganda department, has played a key role in the change. "She controls his schedule—and decides how best to idolise him,"

says the INSS's Mr Kim. The saturation coverage of the dictator's nuclear negotiations, he argues, "suggests they really need the sanctions relief from America and are keen to continue the diplomatic process".

But Ms Baek cautions against over-interpreting the changes. "Kim and his advisers are more attuned to Western media aesthetics than their predecessors, but the message they peddle is very similar." The aim is still to inspire adulation. As more and more North Koreans gain illicit access to foreign media, the overhaul of Mr Kim's image may merely be an attempt to sell the

same ideology to a more worldly audience.

Both the extent and the limits of the new approach were on display in mid-March, when Choe Son Hui, one of the North's nuclear negotiators, gave a briefing to foreign diplomats and journalists about the talks with America. That she would bother to brief them was surprising. But she used the occasion to resort to the sort of threats and brinkmanship that North Korea has deployed for years, floating the possibility that it may soon resume testing missiles and nuclear weapons if America does not make more concessions. ■

Banyan A distorted mirror

The Christchurch massacre has challenged New Zealanders' image of themselves

"THIS ISN'T New Zealand" has become a national refrain. After a white supremacist's attack on mosques in Christchurch, a shocked country is mourning the 50 worshippers he killed. Condolences are scrawled in chalk on pavements. White New Zealanders pull Muslim immigrants aside to apologise and Maoris dance hakas for the dead. Thousands have gathered for vigils. Florists have run out of stock. As for the prime minister, Jacinda Ardern, she has displayed leadership and compassion. Wearing a Muslim headscarf, she stresses that the whole country is on the side of the victims (many immigrants, some refugees) and their families. "They," she says, "are us." The perpetrator of the violence most assuredly is not.

For under attack too was New Zealand's own image as a uniquely open and tolerant place. To many Kiwis it came as a relief that the alleged assailant grew up in that raw-edged place across the Tasman Sea, Australia. Ms Ardern has suggested that New Zealand was a target precisely because of its inclusiveness.

This image matters hugely to New Zealanders, and many newcomers quickly adopt it. One of the survivors in Christchurch was Yasif Hussein, who immigrated from Fiji four years ago. He describes lying on the ground, looking straight up into the assailant's face and thinking his end had come. Yet, having somehow survived, Mr Hussein says New Zealand has always "felt like my own country".

Like all national narratives, New Zealand's liberal one has a founding myth: the Treaty of Waitangi. Signed in 1840 with over 500 Maori chiefs, it established British sovereignty over New Zealand. Crucially, Britain acknowledged the landholdings of New Zealand's origi-

nal, Polynesian settlers and guaranteed them rights as British subjects. Since the 1970s a tribunal has served to provide compensation for the many subsequent breaches of the treaty.

The treatment of Maoris stands in contrast to Australia's towards Aborigines, who were once hunted like vermin. As recently as the 1970s children deemed to be mixed-race were forcibly removed into care. The first official apology to Australia's indigenous peoples came only in 2008. There has yet to be much compensation for historic wrongs beyond the return of some traditional Aboriginal land.

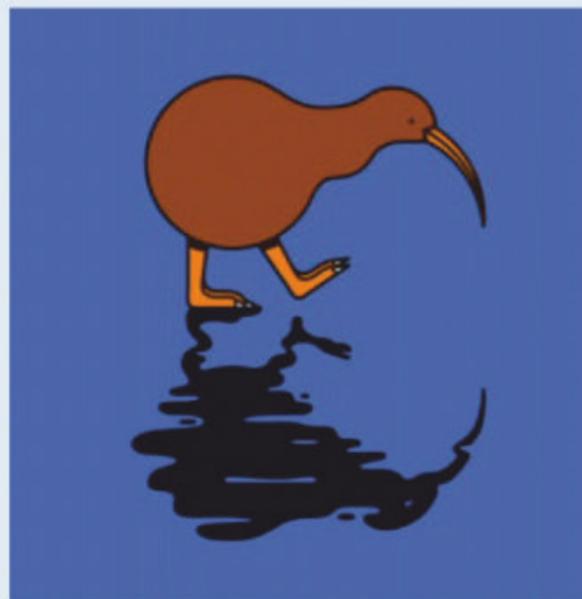
The treatment of Maoris, some say, gives a leg-up to other minorities too. Yet since the massacre, New Zealand's self-image has come in for scrutiny. There are plenty of blemishes. After all, racial ideology long served as the basis of immigration policy, keeping non-whites out. As for the Maoris, ravaged by discrimination and imported disease, the task of the white settlers was, as one of them put it, to "smooth the pillow of the dying race".

These days you only have to visit run-

down neighbourhoods inhabited by Maoris and other Pacific islanders to know that race relations are far from perfect. They are hotspots of unemployment, alcoholism and domestic violence. Many white New Zealanders blithely pass their lives in a parallel world.

Taika Waititi, a filmmaker and comedian, claimed last year that New Zealand remains "racist as fuck". Resentment over sharp increases in immigration, and even of Maori progress where it has taken place, has caused some among the white majority to think of themselves as victims. Not long ago Christchurch was notorious for its race-baiting skinheads. Today the radio waves are full of American-style shock jocks stoking resentment. Ms Ardern herself campaigned on curbing the immigration that was widely believed to be fuelling sharp rises in property prices. Michael Grimshaw of the University of Canterbury worries that if Brenton Tarrant, the man accused of the massacre, gets to air his grievances in court, "that is how you get your 'Uncle Barry' listening." And Uncle Barry may not agree with all of his complaints, but he might agree with some of them.

No country is all sweetness and light. What matters is the direction of travel. In America demagogues portray any trifling curb on gun ownership as a plot against whites. In New Zealand Ms Ardern has swung even the political right behind tighter gun control. In Australia a hard-right senator implied that the Christchurch massacre was the fault of Muslims, who should not have migrated to New Zealand in the first place. In New Zealand's political discourse, such a comment is nearly inconceivable. If the massacre has put New Zealanders at a crossroads, they still look to be walking towards their image of themselves.



Indian politics

No tactic is too underhand

KOLKATA

Dirty tricks—and worse—mar the election campaign

WHEN YOU are on the run from a murder rap, what better place to take refuge than with the ruling party? Or so reckon Amit and Debu. Since February the two friends from the rice- and mango-growing district of Nadia have camped in the rickety building near the University of Calcutta that serves as the bustling West Bengal state headquarters for prime minister Narendra Modi's Bharatiya Janata Party (BJP).

The fugitives are party workers. They say they have been framed for the brutal murder in Nadia on February 28th of Sudhin Som, a youth leader from the All India Trinamool Congress (AITC), a rival party that runs West Bengal like a fiefdom. They also say Mr Som had been on the verge of defecting to the BJP, and that the men who killed him at an election rally were most likely AITC *goondas* (thugs). Since the killing, they note, the BJP has been unable to work in Nadia. "All of our houses got shot at and ransacked," says Amit, a computer programmer who claims that AITC thugs have beaten him up 20 times in the past three years. "They say that if you fly a BJP flag, we will cut off your hand."

In the topsy-turvy of West Bengal politics, this could all be true. The state's long-held reputation for political thuggery has deepened since Mamata Banerjee, the AITC's founder and guiding force, captured power in 2011, ending 34 years of communist rule. But with heightened stakes come heightened measures. As India races towards a general election in April that many regard as the most consequential in decades, the level of political abuses of all sorts is rising.

Ms Banerjee's party may wield fearsome street muscle, for instance, yet as a regional rather than national party it lacks other cards. Take money. With membership of more than 100m and with tycoons queuing for Mr Modi's favour, the BJP last year sucked in four times more donations than the next five parties put together. In an election whose total cost has been estimated at \$7bn-10bn, this makes a big difference. Even sticking to the official maximum expenditure for each party of \$100,000 for every seat it contests in the Lok Sabha, the 545-seat lower house of parliament, no other party could afford to run as many candidates as the 500 or so that the BJP is fielding. And despite the best efforts of the hallowed Election Commission to monitor spending, few believe that any big

party observes the limits.

Money is instrumental in other ways, too. On March 7th the BJP bought no fewer than ten full-page ads in the *Indian Express*, a national newspaper. It bought none in the *Hindu*, a rival, a paucity some linked to the newspaper's dogged investigation of a costly defence deal inked by Mr Modi. In February a recording surfaced in Karnataka which purportedly caught a BJP leader talking about offering cash to members of the state assembly to switch parties. Few were surprised by the ploy, a time-tested one which could have toppled the state government and put the BJP in charge. What raised eyebrows were the sums allegedly proffered: \$3m to "flip" a state legislator and \$7m to buy off the speaker of the house.

Being in government is useful, too. Opponents of Ms Banerjee say that it has become common for police in West Bengal to file charges against political opponents, which are dropped when they pledge allegiance to the AITC. Of the party's candidates for West Bengal's 42 seats, nine are recent defectors from other parties. Some rivals allege worse misdemeanours. Last year's local council elections in the state were especially violent, eliciting widespread protests of voter intimidation. With the state police tamed, it is said that potential meddling by the Central Reserve Police Force, a national body, was forestalled by flooding their barracks with busloads of girls from Sonagachi, Kolkata's red-light district. Small wonder that a senior party member

jokes that if Mamata endorsed a banana tree, it would get elected.

The AITC claims it is actually the victim of such tactics. After some of its leaders joined the BJP, it says, the Central Bureau of Investigation, a national police agency, suddenly stopped investigating their role in a \$4bn pyramid scheme that rocked West Bengal six years ago. As the election approaches, investigators have been oddly keen to revive other cold legal cases. Hoary corruption scandals allegedly involving the Gandhi family, five generations of whom have run the Indian National Congress, the only national rival to the BJP, have suddenly been reopened. Robert Vardra, a former property developer whose wife is Priyanka Gandhi, sister of Rahul Gandhi, the Congress president, has in recent weeks been repeatedly summoned for all-day interrogations regarding a series of past transactions. Half a dozen other Congress leaders have seen cases against them suddenly spring to life again after lying dormant for years.

Then there are the smears and insinuations. Mr Gandhi incessantly labels Mr Modi, who fashions himself a *chowkidar* or watchman, as a thief. Some BJP leaders, meanwhile, say that Mr Gandhi, whose mother is Italian, is a liar: he cannot be a high-caste Hindu as he claims. As for Ms Banerjee, whisperers dismiss her as Mumtaz Begum, the Muslim-sounding name being a swipe against the AITC's popularity with West Bengal's many Muslims.

The indefatigable Election Commission, whose motto is "no voter left behind", plans to dispatch a full team on a day-long hike to reach the single voter in India's smallest electoral district. High up in the mountains of Arunachal Pradesh, on the borders of Myanmar and China, Sokela Tayang may be the only one of India's 900m voters completely insulated from underhand tactics. ■



Keeping the police busy



Narcotics

Old habits die hard

KUNMING, YUNNAN

China's punitive anti-drug policies are not working

ALITTLE OVER 20 years ago, when he was still a teenager, Lin Guangpeng tried heroin that his friends had brought to a party near his home in the south-western province of Yunnan. Soon addicted, Mr Lin—not his real name—spent many of the subsequent years behind bars, including several long stretches in detention centres for drug users. He says wardens in these “compulsory isolation detoxification” facilities put him to work in prison factories. Such places are meant to heal your body, he says (inmates are pictured exercising). But they “damage your soul”.

China is tough on drugs. Many traffickers are among the thousands of people executed annually. Sometimes they are paraded beforehand at public sentencing rallies. Attendees at these grim spectacles include busloads of schoolchildren. Drug users may be punished on the spot by police. Many are locked up in centres like the ones where Mr Lin was sent, often for stretches of two to three years without trial. In 2017 about 320,000 people spent time in such

camp, says China's anti-narcotics agency. That is about 36,000 fewer than in 2016 but about 120,000 more than in 2012.

After their release from these facilities, former inmates still suffer harassment by the police. Mr Lin's latest incarceration (for two years) ended in 2018. He is sober, thoughtful and keen not to fall back into addiction. But his name is still on the government's list of drug users. Such people are liable to be given random urine tests by police. Often these are conducted at police stations. Sometimes they are sprung on people when they check into hotels or try to board planes. Mr Lin speculates that smart security cameras and mobile-phone tracking can make it easier for police to find and test people whenever they please.

Last month President Donald Trump

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said he had asked his Chinese counterpart, Xi Jinping, whether China had a drug problem. He said Mr Xi denied it. “We give death penalty to people who sell drugs. End of problem,” Mr Trump quoted Mr Xi as saying, as if in stilted English. Yet China clearly does have a problem. The number of registered drug users (supposedly not including those who have been clean for more than three years) has been drifting steadily upwards. In 1991 there were 150,000 such people. By 2017 there were 2.5m. Experts estimate that the total number of addicts is around five times higher.

Until a few years ago China's main problem with hard drugs involved heroin use in poor provinces such as Yunnan that lie closest to the foreign poppy-fields of South-East Asia. These days, however, use of hard drugs is more evenly spread across China. It more commonly involves synthetic stimulants, chiefly methamphetamine. The drugs are still mostly smuggled in, usually from Myanmar. Some are cooked up in illegal Chinese laboratories.

Worried by these trends, the authorities have been experimenting with less punitive methods of controlling the demand side. The management of China's compulsory detoxification centres has mostly passed from the police to the judiciary. The latter is slightly more interested in providing inmates with appropriate medical help, says one Chinese expert.

The police, meanwhile, no longer pack ▶▶

▶ drug users off to such places on their first offence (though they remain vigilant: in January police in Beijing put up notices offering a reward of 500 yuan—about \$75—for information leading to each arrest of a drug user, or 20,000 yuan for a group of ten or more). Wang Weijia of Glimmer of Hope, a charity that provides advice to drug users and their families, says that the provision of addiction treatment at private hospitals and clinics has grown in recent years. The number of clinics in China that are licensed to offer methadone treatment to heroin addicts (methadone does not work for those addicted to synthetic stimulants) increased from a handful in 2004 to more than 700 in 2013. Most of them are state-owned. To be eligible to receive methadone addicts must prove that they have undergone detox treatment, whether in the compulsory camps or at clinics.

But change is slow. People who go to methadone clinics or private treatment centres risk being pounced on by police trying to meet arrest quotas. A law passed in 2008 promised more “community-based” rehabilitation programmes. But there are still few of them and they are not very effective. There is still no convincing sign that the government is trying to create an alternative to detention. Officials are reasonably good at spotting heroin users, whose lives are often entirely upturned by their addictions. But according to a paper by two criminologists at American universities, Sheldon Zhang and Ko-Lin Chen, officers find it much trickier to pick out users of methamphetamines and other powerful stimulants, which do not at first create the same all-consuming dependency as heroin. One expert’s guess is that the government’s registry of drug users identifies about one-third of the country’s heroin users but only a little over one-tenth of methamphetamine addicts.

Since 2016 several places have tried testing for drug residue in sewage in order to help the police find addicts and traffickers. China’s anti-drug agency said this method had “transformed” anti-narcotics work. In April 2018 the southern city of Zhongshan said the technique had led to the arrests of 341 drug users in the preceding year.

Many officials still regard substance abuse as a moral problem rather than a medical one, says Hao Wei of the Chinese Association of Drug-Abuse Prevention and Treatment. Political stigma complicates the issue. In the 19th century China lost two wars against Britain that were triggered by the smuggling of opium into China by British traders. Many Chinese blame Britain for fuelling Chinese addiction to the drug and plunging the country into a “century of humiliation” by foreign powers. Today’s drug users inherit some of that shame. China’s punitive approach to the problem will not help it go away. ■

Television drama

Conflicted Confucians

BEIJING

A hit show questions blind obedience to unreasonable parents

IT IS NO mean feat to be one of the top-ten trending hashtags on Weibo, China’s equivalent of Twitter, for 20 consecutive days and counting. “All is Well”, a show on provincial television which premiered on March 1st, has done just that. The show tells the story of a fictional Chinese family torn by internal conflict. The female protagonist, Su Mingyu, is barely on speaking terms with her widowed father and one of her two brothers. The father is a nagging crank who expects his two adult sons to bankroll his lavish tastes. This leads to constant bickering between the brothers, neither of whom wants to be called unfilial.

Episodes of “All is Well” have been streamed more than 390m times. That exceeds the online viewership of the next most popular television series by 278m. From “The Simpsons” to “Game of Thrones”, dramas about bickering families are common in many countries. But in China, the Communist Party prefers entertainment to be unchallenging. So the questioning of blind attachment to traditional values in “All is Well” is causing a stir. Viewers are transfixed by its rare portrayal of middle-class life, warts and all.

Many Chinese can relate to the Su family’s troubles. The daughter holds a grudge against her father (the two are pictured), and especially against her late mother, for having mistreated her while pampering her brothers. As a child she was made to wash her brothers’ clothes. Her parents

turned a blind eye when one of her brothers beat her. For many female viewers born before 1979, when China introduced a one-child-per-couple policy (changed to two in 2016), such scenes have brought back painful memories. Some have used social media to share their own tales of sexism within the family.

But the biggest reaction has been to the drama’s critique of filial piety. Even today, the Confucian principle of unswerving loyalty to one’s parents remains hallowed. Many people say the best measure of adherence to this virtue is whether a son takes good care of his parents in old age. A recent poll by Toutiao, a Chinese news app, found that 54% of elderly people in China get more than half of their expenses covered by their adult children. Partly, no doubt, this is due to a patchy pensions system. But it also reflects a culture of “never saying no to your parents”, says an “All is Well” fan in Beijing.

In the series, however, the widowed father does not attract much sympathy. He throws tantrums and insists that his eldest son buy him a three-bedroom apartment (the son grudgingly does so). Commentators on social media have taken to calling the father a *juying* (“giant baby”)—a characteristic common among parents in real life, they say. The Su children do their duty, but the audience is supposed to applaud the resentment they express.

There have been mixed reviews in state media. One newspaper said that the “realistic plot and acting” had touched the “pain points” of many viewers. *Beijing Daily*, however, said the drama was “unrealistic”. It said it caricatured elderly parents by “unreasonably” ascribing “every possible bad quality” of old people to one character. Someone representing every virtue admired by the party would be just fine for television, presumably. ■



Dark thoughts about the big baby

Chaguan | China loses patience

Abandoning the doctrine of “hide your capacities, bide your time” has costs



BY THE TIME Chinese censors finally allowed a James Bond film to be shown in a mainland cinema, in 2007, the franchise was more than four decades old. Only thanks to rampant piracy were Chinese familiar with the British spy, commonly referred to by his codename, *Ling ling qi*. Chinese leaders would do well to study a plot device beloved in the early films: the moment when a ruthless genius explains his plans for world domination to a captive Bond, believing him moments from death. With the reliability of a well-tuned Aston Martin, the bragging turns out to be ill-timed. Within moments Bond is free, the villain's lair ablaze and his schemes thwarted. Today in the real world, China faces unusual resistance to its bid for a front seat as a global power. Surprisingly often, China's woes stem from what film critics might term Bond-villain blunders, involving premature admissions of ambition.

Take the ongoing campaign by American officials to scold allies into shunning Chinese high-technology for 5G mobile-telecommunications networks. The secretary of state, Mike Pompeo, says that America may refuse to share intelligence with governments that install kit from such tech giants as Huawei, a firm that Mr Pompeo accuses of having “deep connections” to Chinese spy services. Allies grumble that American officials have not shared hard evidence to back their claims. On March 15th Li Keqiang, China's prime minister, declared that his government would never ask companies to break the law to spy on other countries, insisting: “This is not how China behaves.” Alas, Mr Li's words cannot fully soothe foreign governments and businesses who know what Chinese law openly permits. Notably, an intelligence law of 2017 decrees that all Chinese organisations and citizens are obliged to cooperate with national intelligence-gathering operations. None may demur if spooks requisition their premises or equipment.

China hawks in America, among them Senator Marco Rubio, a Republican from Florida, have seized on another admission: the “Made in China 2025” plan, an ambitious road map for high-tech industrial policy adopted four years ago. A Senate committee which Mr Rubio chairs issued a report in February examining targets linked to Made in China 2025 that call for Chinese firms to dominate domestic markets for such products as semiconductors and electric vehicles. The report concedes that, in one respect,

Americans should thank state planners for identifying favoured industries. China's plans provide “a blueprint for effective defensive action”, from tariffs punishing unfair technology transfers, to schemes supporting American firms, Team Rubio writes.

Nor is Europe rolling over like a Bond villain's cat. On March 12th the European Commission and the European Union's foreign policy arm, the EU External Action Service, issued a strikingly bleak strategic paper on China. The document calls China a partner when battling such global menaces as climate change, as well as an economic competitor. But it also calls China a “systemic rival” whose engagement with the world of norms, rules and multilateral organisations is “selective” at best, and at worst weakens that order. Like America's Senate, the Euro-paper also singles out the Made in China 2025 plan. It sees a scheme to shield high-tech national champions from competition, while EU firms are forced to hand prized technologies to local partners as a precondition for entering China's markets. The EU paper urges European governments to maintain unity as they demand reciprocal trade terms.

Europe's unity will be tested when President Xi Jinping visits Italy between March 22nd and 24th. While there he aims to sign that country up for the Belt and Road Initiative, a global infrastructure scheme. America and some European governments have urged Italy to be cautious about endorsing a project that is—as critics tell it—a debt-fuelled master plan for a parallel, China-led global order. China's foreign minister, Wang Yi, urged Italy to ignore such qualms and sign up, saying: “We trust you'll stick to the decision you have independently made.” As for Made in China 2025, Chinese officials downplay its import, calling it just another plan from a nation full of planners, whose most alarming buy-Chinese targets are from non-binding guidance documents.

In a bid to sweeten trade-war peace talks with America, China announced that it will enact a new foreign-investment law in January. Among other promises, the law says that overseas firms' secrets will not be leaked when shared with government regulators. Foreign chambers of commerce in China responded warily, noting the law's lack of detail. For many foreign executives in China, industrial policies announced over the past four years are a Bond-villainesque instance of candour. It is when they realised that China's long-term vision for the future may not include them at all.

Do you expect me to talk? No, Mr Bond, I expect you to die

It is often said that today's China is more assertive. Certainly China has broken with the dictum of the early 1990s, coined by the then-supreme leader, Deng Xiaoping, that China should “hide its capacities and bide its time”. In truth China is now too big to hide. It has always mixed bursts of assertiveness with promises to open markets and protect foreign firms. What is new is that this China is impatient. Officials increasingly chafe when foreign powers cite global norms and rules as grounds for disapproval. A public steeped in propaganda about China's greatness is indignant when the country is—as ordinary Chinese see it—denied due respect. All those forces stoke impatience. Whether that backfires depends on how other countries respond. America could ban its high-tech firms from some forms of business with China. European governments could start screening Chinese investments more strictly. Predicting the West's response is made harder by President Donald Trump. He is as bored by norms and rules, and as obsessed with respect, as any Bond villain. Privately, smart Chinese policy types lament their country's new fondness for boasting. Many Chinese officials will not listen; they are in too great a hurry. ■



White nationalist terrorism

No safe places

CHRISTCHURCH, ISTANBUL, MOSCOW AND WASHINGTON, DC

A solitary killer in Christchurch is part of a global movement

HE SEEMS to have been a classic “lone wolf”. As far as police can tell, the man who murdered 50 worshippers, and critically wounded nine more, at two mosques in Christchurch, New Zealand on March 15th was not part of any organisation. The 28-year-old Australian, Brenton Tarrant, claimed to have developed his violent beliefs on his own, surfing the internet and visiting Europe. He bought his weapons himself. He honed his skills at a suburban shooting-range. No one there suspected that he was preparing a massacre.

Yet he was part of something much bigger. The names and slogans scrawled on his weapons were familiar to extreme white nationalists all around the world—but hardly anyone else. His ranting internet manifesto, “The Great Replacement”, repeated a staple far-right conspiracy theory: that non-white and Muslim immigrants in Western countries are invaders, ushered in by scheming elites to replace ethnic-European populations. Variants of that once-fringe idea are now common, not just in social-media posts by anonymous wackos but in the speeches of elected politicians

from Hungary to Iowa.

In another sense, too, the lone wolf had a pack. Attacks by neo-Nazis, white supremacists and other extreme-right types are growing more common. In America they outnumber those committed by Islamists. Of 263 domestic terrorism incidents in 2010-17, fully 92 were carried out by far-right attackers, compared with 38 by jihadists, according to an analysis of the Global Terrorism Database by the *Washington Post*. In Europe jihadist killings still predominate, but deaths from extreme-right terrorism have surged since 2010 (see chart on next page).

The past six months have seen a rash of far-right terrorist incidents. Last autumn a white nationalist killed 11 people at a synagogue in Pittsburgh. France broke up a plot to kill Emmanuel Macron, the president, and Spain arrested a fascist hoping to assassinate Pedro Sánchez, the prime minister. Germany uncovered an extremist cell in the army, allegedly planning to kill the foreign minister and others. In February America’s FBI arrested a Coast Guard officer who had an arsenal and a target-list of

Democratic politicians.

Globally, white-nationalist terrorism is far less deadly than the jihadist variety. But it is more prevalent than authorities acknowledge, says Jacob Aasland Ravndal of Norway’s Centre for Research on Extremism. Legal definitions of terrorism often require that an attack be planned in advance. Much extreme-right violence is spontaneous. Even burning down a refugee centre may count as a hate crime, not terrorism. Europol, the EU’s law-enforcement agency, ascribed just 3% of terrorist attacks in 2017 to the far right. But Mr Ravndal’s database of ideologically motivated violent incidents shows that in western Europe, though jihadists kill more people, the far right carry out more attacks.

More right than they know

If the threat from white nationalists is underestimated, that is partly because they are more publicity-shy. Mr Tarrant and his hero, Anders Breivik, who murdered 77 people in Norway in 2011, were exceptions. They left manifestos and tried to maximise media exposure. Indeed, the Christchurch killer also resembled sophisticated jihadist outfits, both in the ostentatious cruelty of his crime and in his hope that it would polarise society, fuelling yet more extremism.

Islamic State tries to provoke the West into persecuting Muslims and thus driving sympathisers from the “grey zone” towards radical participation. Right-wing extremists may also hope to provoke an Islamist backlash. Police are investigating a pos ▶▶

► sible terrorist motive behind the murder of three people on a tram in Utrecht in the Netherlands, three days after the massacre in Christchurch. A Turkish-born suspect has been arrested.

In Turkey President Recep Tayyip Erdogan has seized on the attack in Christchurch as evidence of a broad conspiracy against Turkey and Islam. He has quoted from the killer's manifesto, which includes calls to expel Turks from Europe and to kill Mr Erdogan. The president's not-so-subtle message is that only he can protect Turks from rampant white nationalism.

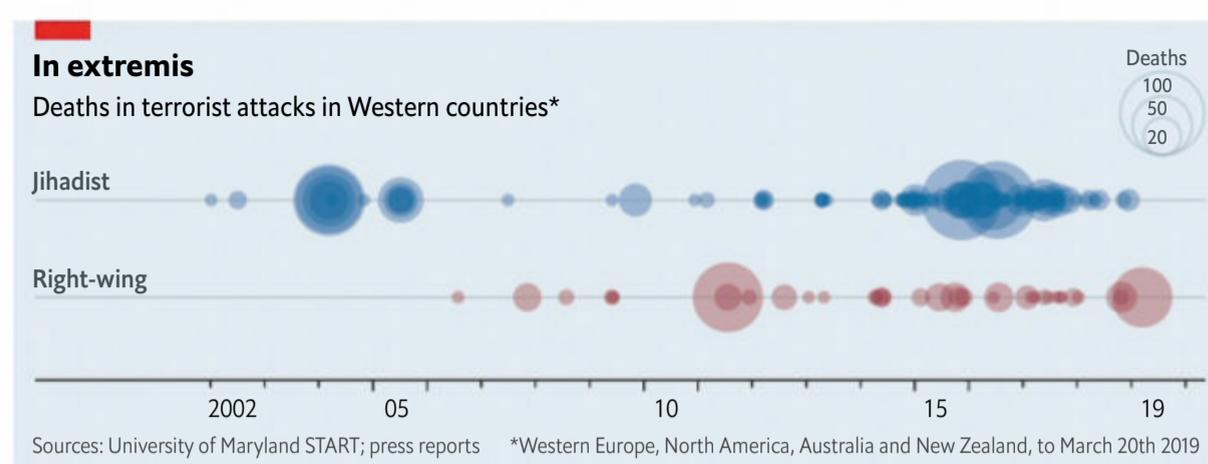
The Christchurch killer also hoped to provoke stricter gun laws, so that gun-owners would rise up in revolt. There is not much chance of more gun control in America, Mr Tarrant's primary target. However, Jacinda Ardern, New Zealand's prime minister, is moving to tighten her country's lax gun laws. This will not start a civil war. New Zealand prides itself on multiculturalism (see Banyan). Its politics are more moderate than Australia's.

That, along with its easy gun laws, may have been why Mr Tarrant picked New Zealand. He wrote that he wanted to prove that nowhere was safe. Muslims in Christchurch have lost all sense of security. To-fazzal Alam, who survived the attack, says he is now afraid "to go to mosque, afraid of any crowd, afraid even to open the door".

Yet the killer's manifesto was inspired by events far away in Europe. He claimed he was converted to radical-right ideology on a trip to France in 2017, when he saw how much of the population was Muslim. He decorated his flak jacket with a "black sun", a symbol traced to a floor motif used in his castle by Heinrich Himmler, a Nazi leader. He decorated his weapons with the names of victims of jihadist attacks in Stockholm and Paris. Before the shootings, he listened in his car to "God is a Serb", a song written in 1993 in support of Radovan Karadzic—a Bosnian Serb leader convicted of genocide for his role in the massacre of 8,000 Muslims at Srebrenica in 1995.

The idea that Muslims and non-whites are "invaders" imported by a cosmopolitan elite to replace ethnic Europeans has its roots in thinkers of the French "new right" of the 1970s, such as Alain de Benoist and Renaud Camus. It is often linked to the belief that multicultural societies, far from promoting diversity, extinguish it by mixing distinct cultures and races together. The nuttiest apostles of such notions equate immigration with genocide.

These ideas attracted the anti-Muslim populist politicians who sprung up across Europe around the turn of the millennium, especially after the September 11th attacks in America. They inspired the far-right youth network Generation Identity. But the big impetus came in 2015-16, when some 2m asylum-seekers, mostly from the Mid-



dle East, poured into Europe.

For right-wing populists, this crisis was a godsend. Viktor Orban, Hungary's prime minister, built a fence against the migrants and began calling himself a defender of Christian Europe. A frenzied opposition to Muslim immigration (real or imaginary) is the lodestar of populist-right parties in Germany, Poland, Sweden and Italy. At the European Parliament this month, Javier Ortega Smith of Vox, a new far-right Spanish party, thundered that had Spanish and Venetian fleets not won the battle of Lepanto against the Turks in 1571, every female MEP "would be wearing a burqa".

Daniel Koehler of the German Institute on Radicalisation and De-radicalisation Studies says that it is no coincidence that extreme-right violence jumped during the migrant crisis, along with the fortunes of far-right parties: "If you think you have ...to protect against 'invaders'—how do you do that without using force?"

In America, too, the rise in extreme-right violence is linked to mainstream politics. Between 2009 and 2018, white supremacists killed more than three-quarters of the 313 people murdered by extremists. In 2016, the year Donald Trump won the presidency, more anti-Muslim assaults were reported to the FBI (127) than in

any year since 2001 (93).

Such attacks rose steeply after Barack Obama's election in 2008. Daryl Johnson, who spent 15 years studying right-wing terrorist groups, including at the Department of Homeland Security (DHS), wrote a paper in 2009 warning that the arrival that year of a black person in the White House could spark far-right violence. Demonised by conservatives for this, he left the DHS in 2010. Today, he says, it has no experts in right-wing terrorism. A spokesman did not deny this, but, in an email, said that the DHS is "committed to combating all forms of violent extremism, especially those that espouse racial supremacy or bigotry".

In denial

Mr Trump has played down the threat of right-wing extremists, calling them "a small group of people that have very, very serious problems". In 2017 his administration cancelled grants to groups combating white-supremacism. Peter Singer, a cybersecurity expert at the New America Foundation who was invited to speak to Mr Trump's national-security staff that year, said that they dismissed white-supremacist terrorism as "a law-enforcement issue", and denied that it is transnational.

In fact, the ties between American and European extreme-right groups are ever closer. Europe's Generation Identity groups are linked to Identity Evropa, one of the the American far-right organisations that planned a "Unite the Right" rally in Charlottesville, Virginia in 2017, where a white nationalist drove his car into a crowd and killed a counter-protester. Marchers at that rally chanted "Jews will not replace us", referring to the same "great replacement" thesis shared by European extremists and the Christchurch killer.

Mr Trump has played the role for American white nationalists that such leaders as Mr Orban played for Europe's, says Brian Levin, who heads the Centre for the Study of Hate and Extremism at California State University, San Bernardino. These groups, he says, saw their ideas, such as building a wall like Mr Orban's, and banning or deporting Muslims, "getting into the mainstream tent". They took this as a "green light" for violence. And he notes that, like



The Breivik tradition

▶ the young on Europe's extremist right, they have softened their image in the past decade. Shaved heads and combat boots have given way to army haircuts, polo shirts and corduroy jackets.

Far-right groups lack the state sponsors and safe havens enjoyed by some jihadists. Many on the extreme right admire Russia but it does not fit the bill. It has cultivated ties with far-right parties in Europe, but has snuffed out extremists at home. In the 2000s hate-motivated attacks, often directed at immigrants and internal migrants from the north Caucasus, reached nearly 700 a year, as the state flirted with nationalist movements. Clashes in Moscow in 2011 between police and far-right groups mixed with football hooligans showed the dangers of tolerating the ultra-nationalists. After they joined anti-government protests in 2011-12, the state began shutting them down, detaining the most violent. In 2014 war with Ukraine split the movement into pro-government and pro-Ukrainian factions. The SOVA Centre, an independent monitor, recorded just 57 hate-motivated attacks in 2018.

The Ukrainian model

Other Western white nationalists look to Ukraine itself, a hotbed of far-right activity since the Maidan uprising in 2014. Quasi-fascist militias, such as the Azov Battalion, have fought Russia in the east and taken a role in policing. So Kiev is "a place of attraction for the global far-right", says Anton Shekhovtsov, of the University of Vienna. Some European radicals have joined Ukrainians on the front lines. American white supremacists have been spotted in Kiev. But as Mr Shekhovtsov puts it, "migration is a first-world problem", and, whereas earlier far-right groups would beat up foreigners from Africa and Asia, Azov is keener on disrupting gay-pride marches. In any case, Ukrainian men seeking romantic violence have plenty to do in the east.

A more pressing concern for Western governments is far-right radicalism within their armed forces. Soldiers, obviously, are trained and have access to weapons. In America the DHS warned a decade ago that right-wing extremists will attempt to "recruit and radicalise" veterans, recalling the terrorist attacks of the 1990s by bitter ex-soldiers, such as the Oklahoma City bombing. A study of 119 lone-actor terrorists across America and Europe since 1990 found that 26% had done military service.

Racial tension is rising in the armed services. A recent poll by *Military Times*, a newspaper, found that over half of non-white American service members had suffered racism in 2018, up from 42% in the previous year. In 2017 two marines were arrested for hanging a white-supremacist banner on a building in North Carolina. On March 18th the *Huffington Post*, a news web-

site, identified seven serving American soldiers as active in Identity Evropa.

The German authorities are investigating some 450 cases of suspected right-wing extremism in the *Bundeswehr*. Last year the security services identified dozens of police and soldiers as members of *Reichsbürger*, a far-right movement. In Britain in September 2017 four soldiers were arrested for membership of National Action, a banned neo-Nazi group. "If we get enough of us into the Army," suggested one, "we'll be in the right place when things start to collapse."

Armies are tightening their vetting procedures and becoming more vigilant. They insist that adherence to law is drilled into recruits. But, for good reason, most armed forces are prohibited from conducting political education.

Tracking sources of danger is hard because, as Mr Koehler, the German scholar, points out, far-right violence typically involves loose groups of individuals radicalised on social media. He calls this "hive terrorism". It is practically impossible to predict when someone will go from wishing others dead to actually killing them.

The Christchurch killer is a perfect example. He spent time on 8chan, a message-board that prides itself on allowing users to post anything not illegal under American law. (After the attack, its administrators said they would co-operate with police.) It concerns itself with everything from Japanese cartoons to role-playing games. Anonymous posting is the norm.

The board's "Politically Incorrect" subsections are far-right haunts. Their culture is a self-consciously puerile mishmash of memes, absurdism and irony, making it hard to know how seriously to take anything posted there. When Mr Tarrant declared on 8chan that he was about to commit murder, and proceeded to live-stream

it on Facebook, many replies expressed surprise (often pleased) that the promised shooting spree was actually happening.

The killer's manifesto, too, is steeped in 8chan-like irony, a style sometimes termed "shitposting". Serious rants about low European birth-rates alternate with claims to have been radicalised by "Spyro the Dragon 3", a children's video game. If the media took such claims seriously, they would prove their own cluelessness.

Since the attacks, there have been calls for internet platforms to do a better job of restricting violent right-wing content. Facebook has been blamed for letting the live-stream of the attack go on for 17 minutes. The platform says it began vigorously blocking the video as soon as it discovered it, removing 1.5m attempts to repost it. But internet users could still find copies hours after the attack. (It did not help that some "mainstream" media sites—and even Mr Erdogan—used some of it.)

Big internet platforms could do more, but they face a gargantuan task. The underlying problem, says Ben Nimmo of the Oxford Internet Institute, is that "radicalising content is not constant"—one viewer's trigger to violence is another's harmless satire. Hopes that artificial intelligence might do much of the filtering have not worked out; armies of human reviewers are still needed, and even they often err.

However hard it is to stop terrorists exploiting the internet, other citizens can, at least, refuse to help them. The Christchurch killer's fixation on the former Yugoslavia is apt: as in that war, white nationalists seek to use spectacular violence and propaganda to turn citizens against each other. In New Zealand Ms Ardern has turned this on its head. She has tried to use horrific slaughter to unite a country in opposition to a creed whose most famous new exponent she refuses to name. ■



"A small group of people that have very, very serious problems"



SoftBank and technology investments

Vision 2.0

SAN FRANCISCO

As Masayoshi Son prepares to raise \$100bn for a second huge technology fund, its precursor faces scrutiny

IT BEGAN WITH one of the most lucrative investment pitches in history. In September 2016 Masayoshi Son, boss of SoftBank, a Japanese internet and telecoms firm, painted a picture for Muhammad bin Salman, then Saudi Arabia's deputy crown prince, of how his country might be transformed by technology. The prince was wooed. "45 minutes. 45 billion dollars. So \$1bn per minute," exulted Mr Son.

Nearly two and a half years on, Mr Son has disbursed or pledged \$70bn of the \$100bn vehicle that Prince Muhammad's billions seeded. The Vision Fund, as it is known, owns stakes in around 70 young tech companies, including household names like WeWork, a property startup, and Slack, a workplace-messaging app. A big bet on ride-hailing—with stakes in Uber, Grab, a Singaporean firm that operates across South-East Asia, Ola, an Indian outfit, and China's champion, Didi—collectively covers most of the world. A fresh injection of \$1.46bn into Grab on March 5th

lifted its ride-hailing holdings to \$23bn.

The scale of Mr Son's project upended the cosy world of Silicon Valley venture-capital (vc) firms. Its unspent \$30bn alone is four times the size of the next-biggest pot of vc cash. So when Mr Son recently said that he wants to raise a new \$100bn fund every two or three years, investors struggling to comprehend how the first one operates did not take him all that seriously.

Now SoftBank has begun the process of raising Vision Fund 2. No terms or structure for a second giant fund have been fi-

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nalised, meaning it cannot yet be officially marketed. But options are being explored. The plan is to raise up to \$100bn. The sum could also be lower, say people familiar with the situation.

The fundraising will follow a difficult five months for Vision Fund 1. By the end of February its assets had increased in value by 25-30%, producing returns for all its limited partners: Saudi Arabia's Public Investment Fund (PIF), the country's sovereign-wealth fund, which is contributing the \$45bn; SoftBank, which put in \$28bn; Mubadala, an arm of Abu Dhabi's government, which added a further \$15bn; and a handful of firms, including Apple and Japan's Sharp, which invested \$1bn each. But a rout in listed internet firms' share prices late last year exacerbated worries that the fund might have invested at the peak of the tech boom. Meanwhile, Mr Son's pact with Prince Muhammad entangles it in a geopolitical scandal: the murder last October in Turkey of a Saudi journalist, Jamal Khashoggi, by a team of Saudi operatives, on what Western spooks believe were the prince's orders. And there are reports of friction between the Vision Fund and the PIF.

The fund's daily task is still to hand out cash to entrepreneurs. Four big wagers in the past six months are archetypal: all were on online businesses with aspirations to dominate regional or global markets. In November it put \$2bn into Coupang, South

► Korea's largest online retailer. A month later it led a \$1.1bn round in Tokopedia, an Indonesian online retailer. In February it led another, totalling \$1bn, for Flexport, an American logistics firm with the modest goal of creating the "operating system for global trade" by letting retailers and manufacturers arrange ocean and air freight as easily as travel websites let consumers book flights. Chehaoduo, a Chinese firm which aims to improve the experience of buying second-hand cars online, recently received a Vision Fund injection of \$1.5bn.

Assessing the fund's performance will take years; it runs until 2029. But 2019 will be crucial. The initial public offering of Lyft, Uber's rival in North America, is the starting gun in what promises to be a busy year for tech listings. Uber, Didi and Slack all look poised to enter the race soon. Their performance will be essential to SoftBank, which Mr Son is transforming into a tech-investing firm. The Vision Fund and its little sister, the Delta Fund (where the Didi stake is parked), make up 44% of SoftBank's operating income. Small wonder Mr Son is keen on a sequel.

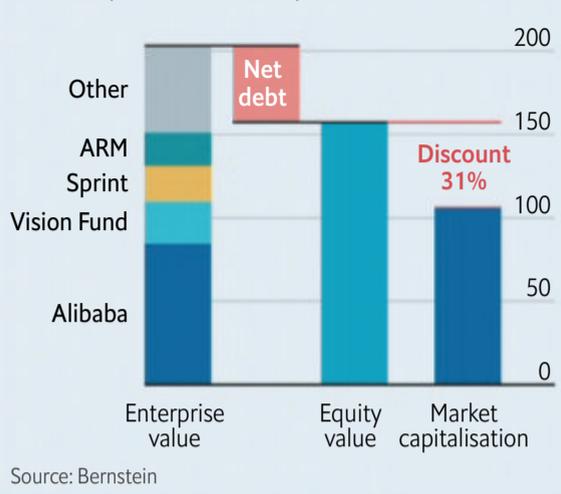
Raising the money for the second fund will take more than a 45-minute sales pitch. Even if Prince Muhammad were ready to sign over another \$45bn, SoftBank might not want it because of reputational risk. SoftBank's December sale of part of its Japanese mobile unit, plus other resources, means it can contribute around \$24bn to the next fund. The rest would need to come from outside investors such as big sovereign-wealth funds. They would shy away from anything that took most of its money from Saudi Arabia, says a person close to one such vehicle. One American politician has called for startups to reject Saudi cash.

In the kingdom, fallout from the Khashoggi murder appears to have emboldened bureaucratic resistance to the crown prince. The PIF's professional investing staff had always looked askance at his pledge of \$45bn, which bypassed their processes for allocating money.

Matters came to a head in an act of defiance late last year, when the PIF and Mudabala reportedly used their clout to deprive WeWork of billions of dollars it was about to receive from the Vision Fund and SoftBank. According to reports, Mr Son's plan had been to put another \$16bn into the co-working firm, which many analysts and investors think is overvalued. On January 8th WeWork announced that it was getting only \$2bn. That investment was reportedly done at a \$42bn valuation. To justify that you must believe that American businesses will stampede *en masse* towards co-working or "managed space", observes Chris Lane of Bernstein, a research firm. Co-working as a proportion of all office space would need to rise from 5% in 2017 to nearly a third by 2030.

Hard numbers

SoftBank, March 15th 2019, \$bn



In recent weeks people familiar with the PIF's views have briefed the *Wall Street Journal* on concerns about the Vision Fund's governance. In public the PIF supports the fund, and its \$45bn is committed. "There is no misunderstanding or conflict with the PIF," says Rajeev Misra, chief executive of SoftBank Investment Advisors (SBIA) which oversees the Vision Fund. According to people who know the PIF, the fund is one of its best-performing assets.

Masa of the universe

Yet reports of the PIF's discontent have drawn attention to three interrelated problems that perplex other investors, too. First is Mr Son's control over the Vision Fund's investment decisions. He and Mr Misra are its only top decision-makers. Usually vc firms have several such "key men". By early 2017 the fund had secured billions of dollars but relatively few people or processes. Usually the team comes first, then the money. Now it has the staff, and legally mandated procedures for vetting firms, signing off on investments, preventing conflicts of interest and so on. But interviews with entrepreneurs suggest that things may not have changed all that much. "His team did loads of due diligence on us but it's Masa's whim at the end of the day," says the founder of a firm which the fund backed this year, referring to Mr Son

Transfer pricing

SoftBank holdings, 2014-18, \$bn



by his sobriquet. People familiar with the fund say they know of cases where Mr Son was overridden, but cannot cite examples because it could damage young firms.

Then there are Mr Son's deeply held convictions about technology, which make some SoftBank shareholders worry that he may be overvaluing unicorns (unlisted startups valued at \$1bn or more). The Vision Fund is often the sole investor in a financing round. It therefore sets its own prices. It injects far more capital than most vc firms can marshal, so Vision Fund startups had no need to test the market late last year. The share price of Nvidia, a rare listed firm in the Vision Fund, has fallen by 39% since early October, and the fund disposed of its stake. But the tech sell-off provoked no big write-downs of unlisted investments (or none that has been individually disclosed). There must have been cases where, if a new funding round had been required, it would have been a "down-round", where a new injection of capital values a firm lower than an earlier one, says Mr Lane of Bernstein.

The stockmarket, for its part, values SoftBank itself at a steep discount to the sum of its listed constituents (see chart 1), despite a \$5.5bn share buy-back in February. Worries that Mr Son is paying over the odds are thought to be a big factor. Take WeWork: when Mr Son slashed his investment to \$2bn, SoftBank's shares leapt by 6%.

A third concern is SoftBank's habit of buying stakes in startups, "warehousing" them on its balance-sheet and transferring them to the Vision Fund, usually at a higher price, occasionally at a lower one. In the six months to the end of 2018 SoftBank transferred 11 investments, including stakes in Uber and Grab, into the Vision Fund, netting \$300m (see chart 2). A stake in Didi bought by SoftBank in 2017 for \$5.9bn will soon go to the fund for \$6.8bn.

There are two reasons for such transfers: the PIF's other investments, and Mr Son's need for speed. His \$7.7bn stake in Uber, for example, moved from SoftBank to the Vision Fund late last year after around eight months of sitting on SoftBank's balance-sheet (in that case SoftBank made no gain). The PIF had a \$3.5bn investment in the ride-hailing firm from 2016 and was wary of increasing its exposure, according to people familiar with the situation. The PIF's Uber stake also meant it worried about Mr Son's investments in Uber's competitors—Didi, Grab and Ola. They all took time to go into the fund.

The Vision Fund's investing processes take time. If Mr Son wants approval faster than limited partners can mobilise capital—for instance to fend off a rival vc fund ready to pounce on a choice asset—he gets it done through SoftBank, says a person who knows him, adding admiringly, "you gotta love him."

Transfers of assets are disclosed to SoftBank's board and approved by the Vision Fund's three-person investment committee. But Mr Son has clout on both sides of the transaction. He sits on SoftBank's board as chief executive. Vision Fund's triumvirate consists of him, Mr Misra and another SoftBank employee. People from the PIF, Mubadala and other limited partners attend investment-committee meetings but only as observers. The PIF wields a veto, but solely over investments exceeding \$3bn.

People close to the Vision Fund and SoftBank say that warehousing is likely to

diminish. The ride-hailing portfolio has now mostly moved to the fund and a \$3bn lending facility has been set up to let Mr Son move quickly without calling on SoftBank's balance-sheet. Governance is being tightened; the fund is interviewing potential independent non-executive directors to sit on the board of SBIA, according to a person familiar with the situation. Messrs Son and Misra have every reason to ensure that the Vision Fund's procedures are pristine; potential investors in Vision Fund 2 will scrutinise how disciplined the first fund has been in allocating capital.

The new fund is also likely to avoid the original's overdependence on two big outside investors. SoftBank would prefer a diverse pool of backers; ideally, none would carry outsized clout, says an investor. The firm also wants its arrangements to become more "normal", in the mould of Blackstone or KKR, two veteran asset managers. The relationship between Vision Fund 2 and SoftBank would be more "arms-length"; transfers between them would occur infrequently, if ever. People close to the first fund insist that the operation is growing up. That claim will be put to the test. ■

Bartleby Drivers wanted

Ride-hailing apps try to burnish their image

IS THERE AN app for cognitive dissonance? Most consumers who have tried ride-hailing services find them cheap and convenient. But many worry that, because drivers are classified as independent contractors, they have fewer rights than normal employees. That treatment helps create the flexibility and low cost that consumers crave. However, it has also given the gig economy a slightly dubious reputation.

Now the ride-hailing companies are falling over themselves to proclaim that they treat their drivers well. Lyft, which launched the roadshow for its initial public offering (IPO) on March 18th, claimed in its prospectus that "we focus on providing drivers with a best-in-class experience". It offers career coaches and "education resources" and is also paying a cash bonus to drivers who have undertaken more than 10,000 rides. Shares in the IPO have been put aside just for the drivers to invest in.

Uber's rapid expansion has been dogged for years by legal battles over the employment status of its drivers. As *The Economist* went to press, the firm was expected to face yet another challenge in the British courts. A group of drivers argue that they have been denied access to data (despite a request under the EU's General Data Protection Regulation) on issues such as their working time and performance ratings.

Travis Kalanick, Uber's founder, had an aggressive management style. But he was ousted in 2017. Dara Khosrowshahi, the cuddlier chief executive who replaced him, has been trying to show that the company's culture has changed for the better. This seems timely given that Uber is also expected to launch an IPO this year.

Last year, in partnership with AXA,

Uber created insurance policies for drivers across the EU, covering sickness, injury and payments for maternity and paternity benefits. Uber bore the cost. Similar programmes are available in Egypt, Pakistan, Saudi Arabia and South Africa. Medical insurance in America is available, too, although this does require the drivers to pay a per-mile levy.

Also in America, Uber drivers who have notched up more than 3,000 trips can take up the offer of an online degree at Arizona State University on the company's dime. This benefit, which is dependent on their customer rating, can be transferred to a loved one or a dependant.

Being nice to the drivers makes sense for three reasons. First, there is competition in the ride-hailing market, not just between Lyft and Uber but from services like Ola and Gett. Drivers may use more than one platform and can switch to the service that treats them best. Second, brand reputation matters. At the height of Uber's troubles in 2017, the hashtag "#deleteUber" was trending on Twitter.

Third, companies that list on the mar-

ket have to convince institutional investors to buy their shares. Many asset managers nowadays pay more attention to social and governance issues, which might restrict their willingness to buy shares in companies that are perceived to have a rancorous relationship with their contractors.

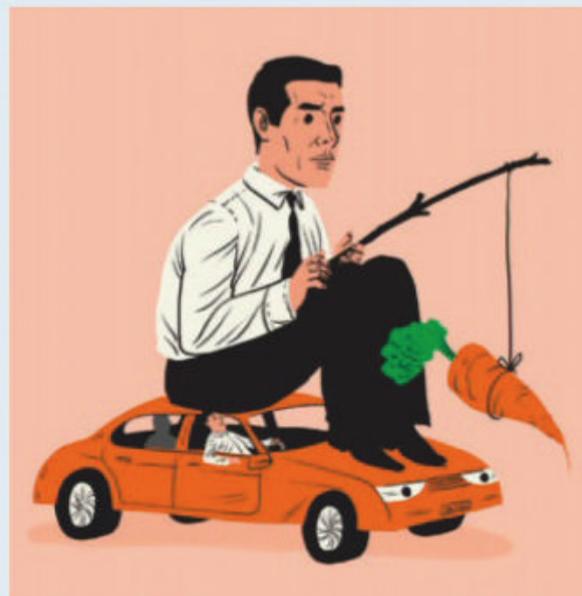
All this makes Uber an interesting test case in brand management. Attempts to woo drivers carry long-term risks. The more benefits the ride-hailing apps offer, the more their drivers may start to resemble employees, rather than contractors, in the eyes of the courts.

Whatever the courts decide, it is hard to see Uber's ride-hailing model disappearing for good. Many drivers prefer it to paying upfront (often a lot) for a traditional taxi licence.

A study* of drivers in London finds that they earn around £11 (\$14.50) an hour (after costs), more than the living wage, and more than a third of them vary their working hours by more than 50% from week to week. These drivers report higher levels of life satisfaction than workers in general, probably reflecting their independence. But as with other freelancers, this independence leads to irregular incomes that make Uber drivers more anxious than those in regular work.

Ride-hailing apps present a classic version of a policy trade-off. Society can choose from three options—cheap services, employees' flexibility and full workers' rights—but it cannot have all three. Consumers and lawmakers will have to work out which to sacrifice.

* "Uber happy? Work and well-being in the gig economy", by Thor Berger, Carl Benedikt Frey, Guy Levin and Santosh Rao Danda



Mobile networks

5G or fifth column?

BERLIN

Ericsson's boss doubts that Huawei's woes will help its European rivals

IN THE DAYS of pre-internet capitalism the troubles of one dominant company in an industry tended to be good news for its rivals. In today's hyperconnected world a threatened ban by Western governments of Huawei, the Chinese market leader in telecoms gear, is also a worry for its competitors. Both Ericsson, a Swedish company, and Nokia, a Finnish one, would prefer the geopolitical saga to end, the better to focus on competing for contracts related to the launch of super-speedy "fifth generation" (5G) mobile-phone networks.

The American government is not letting up its campaign to persuade allies to freeze Huawei out of 5G tenders. It worries that Huawei's kit may contain "back doors"—deliberate security flaws inserted to allow Chinese spooks eavesdrop on, or attack, phone networks. Earlier this month, in a letter to Germany's economics minister, America's envoy to Berlin, Richard Grenell, threatened to cut back American co-operation with German security agencies if the country allowed Huawei or other Chinese firms to participate in the roll-out of 5G. Mike Pompeo, America's secretary of state, suggested in Hungary recently that doing business with Huawei could tip decisions on where America stations troops.

So far Britain and Germany, among others, have not yielded to American demands. Angela Merkel, the German chancellor, said on March 19th that she does not believe in excluding a company from the German market "simply because it's from a certain country", though a final decision is pending. Even if America prevailed in Europe, as it has in Australia and Japan, Ericsson and Nokia are unlikely to win back much of the market they have lost in recent years. Between 2015 and 2018 Huawei's share rose from 24% to 28%; Nokia's dipped from 20% to 17% and Ericsson's from 15% to 13%. An escalation in the war on Huawei might prompt Beijing to retaliate by kicking Western firms out of China.

That would be a blow to the Nordic duo. China accounted for 10% of Ericsson's 21bn krona (\$24.2bn) in global sales last year. The company runs two research and development sites in China. Nokia derives a similar share of revenues from the Chinese mainland, Hong Kong and Taiwan. Extra sales in Europe in the event of a Huawei ban would not offset losses in China, argues Pierre Ferragu of New Street Research, not least because the Chinese will launch

Indian motorcycles

Back on a roll

MUMBAI

A cult two-wheeler reflects the stops and starts of Indian capitalism

WHEN THE new Jawa motorcycle was unveiled last November, two years after the once-popular two-wheeler's return to India was first revealed, its website crashed. Millions of Indian motorheads wanted to catch a glimpse of the original Czechoslovak design reimagined for the 21st century. An undisclosed (but modest) number of online orders were later filled in an instant.

This triumphant return is the latest in a series of Jawa's stops and starts, which mirror India's post-independence economic development. In the 1950s then-high-tech motorcycles were imported from Czechoslovakia. A decade later steep tariffs forced production to move to India, and then, in 1971, further restrictions on foreign products prompted it to be renamed Yezdi. The 1980s ushered in efficient Japanese-led joint ventures, boosted from 1991 by liberalisation. These, together with Royal Enfield, a colonial-era brand with a cult following which has been in Indian hands since the 1950s, outcompeted Jawa, which was also under pressure at home in Europe from a botched nationalisation (and the fission of Czechoslovakia in 1993). The last Yezdi left the firm's factory in Mysore in 1996.

Jawa's swift resurrection reflects how Indian business has changed since the Licence Raj. In 2015 Anupam Thareja, a former director of Royal Enfield, forged a joint venture with Anand Mahindra, who heads a family-controlled conglomerate. Mahindra & Mahindra makes tractors, cars and scooters but has lagged behind in motorcycles. Jawa, whose brand rights in India the petrolhead investors had purchased, offered an inroad to the premium segment. Fancier models—with bigger engines and a price tag of 200,000 rupees (\$2,900) or so—account for most of the profits in India's two-

5G a year or two earlier.

More important, worries Börje Ekholm, chief executive of Ericsson, a ban on Huawei would slow down the launch of 5G in Europe. The continent is already lagging three to four years behind America in 4G, the current generation of wireless technology, he says. Uncertainty over regulation, pricing and, most of all, how to deal with Huawei, is likely to slow Europe down further. European operators are lobbying hard to maintain the choice between three purveyors; many prefer Huawei wares, which are often cheaper (and some say better).



From Czechoslovakia, with love

wheeler market, which is approaching 20m units a year. A recent slide in the fortunes of Royal Enfield's parent, Eicher Motors, left an opening.

Jawa's long-term prospects depend on harnessing nostalgia while eradicating performance flaws. Fiat 500 and Mini-Cooper prove that rebooting iconic vehicles is possible; Volkswagen's unloved new Beetle shows how it can misfire. Overwhelming demand suggests Jawa ticks the sentimental box. Mr Thareja promises that the new model goes faster and burns greener than the original. Mahindra's nationwide network should help with parts and servicing.

Yet the reboot also shows that India's ride to a free-market paradise is incomplete. After enterprising types created an independent auction site for the coveted online purchase rights, Jawa made them non-transferable. Jawa lovers must instead deposit 5,000 rupees with one of 100 dealers—and hope for a call.

The spectre of a Huawei ban is putting a damper on Germany's auction for 5G mobile spectrum that kicked off on March 18th in Mainz. The auction, which drew four big operators, is expected to last several weeks. All four bidders already make extensive use of Huawei hardware, such as antennae or routers. Upgrading to 5G will require splurging on new kit. Huawei wants to be one of their principal suppliers (though it may first need to meet more stringent security requirements which the German government is mulling). In November the Chinese company opened a lab in Bonn, ▶▶

▶ the base of Germany's cyber-security regulator, where its equipment can be tested.

Though it is possible to ban Huawei completely from Europe, its biggest market outside of China, industry insiders warn that it would be hugely complex and costly. It would be especially disruptive in countries where Huawei is deeply embedded, such as Italy, Poland and Britain, says Stéphane Téral of IHS Markit, a research firm. With only a hint of hyperbole Bengt Nordstrom of Northstream, a consultancy, likens the resulting shock to the collapse of Lehman Brothers in 2008. Most of Europe's

roughly 200 operators of mobile networks use Huawei's 4G gear.

Asked whether talk of a Huawei ban had any effect on the order books of Ericsson, Mr Ekholm responds that "the candid answer is no". On March 18th TDC, Denmark's biggest telecoms firm, confirmed that it was plumping for Ericsson over Huawei, its current equipment-maker, to build its 5G network. That deal, though, was struck before any concerns over Huawei were ever aired. So far, the entire controversy has been a headache for Mr Ekholm and his counterpart at Nokia, not a gift. ■

Boeing. Since 2001 the company has lobbied vigorously to perform more of its own safety tests. In 2005 the FAA began to allow Boeing to do more self-certification. "It's like putting children in charge of the sweet shop," says a former Boeing adviser. An investigation by the transportation department in 2012 found that the FAA had not done enough to "hold Boeing accountable". It quoted FAA employees who had reported retaliation for speaking up about problems with Boeing's previous designs.

Scott Brenner, a former associate administrator at the FAA, points out that safety inspectors at the FAA's office in Seattle, home to Boeing's main production facilities, may have worked closely with Boeing's own safety experts for decades. A once-antagonistic relationship has grown chummier in recent years. Posters warning "don't talk to the FAA" are no longer a common sight.

It has not helped that President Donald Trump has left the top job at the FAA vacant since January 2018. The acting administrator lacks all the powers of a permanent head, notes Mr Hall. Financial constraints encouraged the FAA to outsource certification to planemakers. Its budget increased by a sixth between 2002 and 2018, while American air traffic grew by 40%.

On March 19th Mr Trump named Stephen Dickson, a respected former senior executive at Delta Air Lines, to head the FAA. By then, other regulators' confidence in the FAA had been shot. The Ethiopian authorities have declined to give the black box to the FAA for data retrieval, sending it to France instead. Those in Canada and Europe are re-examining decisions to approve the 737 MAX based on mutual-recognition agreements with America. Rather than trust the FAA, they may order their own tests before certifying future Boeing aircraft as airworthy. ■

Boeing and the FAA

Flying too closely

After two fatal crashes in five months, fingers are pointing at Boeing's regulator

AMERICA'S AIRCRAFT-SAFETY regulator has been the industry's gold standard since it was set up in the 1950s. When the Federal Aviation Administration (FAA) called out an aeroplane as unsafe, counterparts around the world followed its lead. That changed after a Boeing 737 MAX jetliner crashed in Ethiopia on March 10th, killing all 157 on board, five months after the same model went down in Indonesia in apparently similar circumstances. The FAA grounded it only once all other big regulators around the world had done so.

A week on, analysis of the black box recovered in Ethiopia suggests "clear similarities" with the Indonesian accident, the country's transport ministry said on March 17th. This raises questions about the FAA's certification of the plane. On March 17th the *Wall Street Journal* reported that the Department of Justice had launched a probe into the MAX's development. Two days later the transportation secretary began an audit of the aeroplane's certification process.

What went wrong? Jon Ostrower, an aviation writer, points to Boeing's decision in 2011 to put a new fuel-efficient engine on an earlier version of the popular 737. Airbus, its European arch-rival, was also planning to do the same on its competing narrow-body jet, the A320. But although there was plenty of room under the A320 to fit these wider engines, the squatter 737 had less space. Boeing decided to mount the engine further forward instead, making the plane less aerodynamically stable.

To improve stability, Boeing installed software called MCAS. This allowed pilots who were certified for the older 737 to fly the new version without getting a new licence. Boeing did not mention MCAS in instruction manuals before the Indonesian

crash, the *Seattle Times* reported. Investigators think that MCAS may have contributed to that accident.

Boeing continues to have "full confidence" in the 737 MAX's safety. While investigations continue, it says, "Boeing is finalising its development of a previously announced software update and pilot training revision that will address the MCAS flight control law's behaviour in response to erroneous sensor inputs". Boeing's team is in Ethiopia helping the investigators. The company says it is "devoted to the quality and safety of the aircraft we design, produce and support".

Jim Hall, former chairman of America's National Transportation Safety Board, another regulator, sees the root of the problem in the FAA's close relationship with



Quiet in the cockpit

Schumpeter | Taking on the baddies

Is it a bird? A plane? No, it's a corporate crime-buster



DOWNTOWN JOHANNESBURG puts a bounce in your step. Streets bustle with noisy fruit-sellers and minibus drivers seeking custom. But South Africa's commercial capital can also put a knot of fear in your stomach. Jozi, as locals call it, is notorious for muggings and armed robbery. Corporate offices bristle with impenetrable security and armies of guards. Yet the area has grown less edgy since Schumpeter first visited, nearly two decades ago. For that, give some credit to Business Against Crime. The association pays for hundreds of CCTV cameras, and for staff to monitor them and alert police to mischief.

South African bosses are far from alone in their concern over crime—be it against their customers, employees or property. According to the World Bank, 17% of all firms (from a global survey of 135,000) count crime as a “major constraint”. In Brazil or Ivory Coast it is nearer to 70%. In El Salvador and Kenya four in five firms pay for private security. A survey in Mexico found that small businesses there spend 6% of their income on such protection, double the level of a decade ago. Companies distributing goods in gang-run neighbourhoods of Medellín, in Colombia, lose 8-15% of their revenues to theft, says Sergio Tobón, who heads Proantioquia, which unites 50 of the country's biggest companies in the city, once home to Pablo Escobar. In the United States, a single killing depresses local property prices by 1.5% on average the following year. In Washington, DC, every homicide is associated with two businesses closing.

In truly lawless regions, the simplest solution is for companies to stay away—or hire private armies. In peaceful places they help maintain order at a remove, by providing jobs, paying taxes and being good corporate citizens. But in locations that are, like Johannesburg, dangerous but too important to ignore, they increasingly push back directly.

Proantioquia bankrolls research into the best ways to combat organised criminals. Other Colombian firms urge banks to extend loans to their hard-pressed workers so that they avoid *gota a gota*, a vicious local species of loan shark. In Monterrey, a large industrial centre near Mexico's border with the United States, big local firms known as “the group of ten” argued for reform of corrupt state police who had let violent criminals prosper. They helped pay for bet-

ter police training and lobbied for higher wages and benefits for new recruits. More firms jointly commissioned regular surveys of public attitudes on crime, to focus politicians' minds.

Corporate crime-fighting is not confined to violent parts of the emerging world. In Ferguson, Missouri, local businesses such as Emerson Electric and Centene, a health-care outfit, rushed to open offices and employ locals after anti-police protests five years ago. The idea was to snuff out popular anger before it fuelled violence. After a horrible spike in killings in Chicago three years ago, companies with a large presence there including Allstate, an insurer, and Boeing, pooled \$40m to help stem gun-violence, for instance by paying for therapy and jobs training for vulnerable young men who might pull the trigger next. AT&T opened a call centre and hired 400 workers from the city's most blighted districts, to foster economic opportunities.

Corporate caped crusaders have a range of motives. They fret that crime will hurt the wider economy and thus (eventually) them, too. Whitney Smith of JPMorgan Chase, a bank which has funnelled \$150m into rehabilitating parts of Detroit and is now contributing to efforts in Chicago, says that companies, civic organisations and local government all feared the Windy City was earning a reputation for violence. “It felt like a threat to economic growth for everyone,” she recalls. Last May Mexico's big business lobby, CCE, called violence the single “greatest obstacle” to economic activity. Mr Tobón says firms in Medellín pay to train *exguerrillas* for civilian jobs for the same reason.

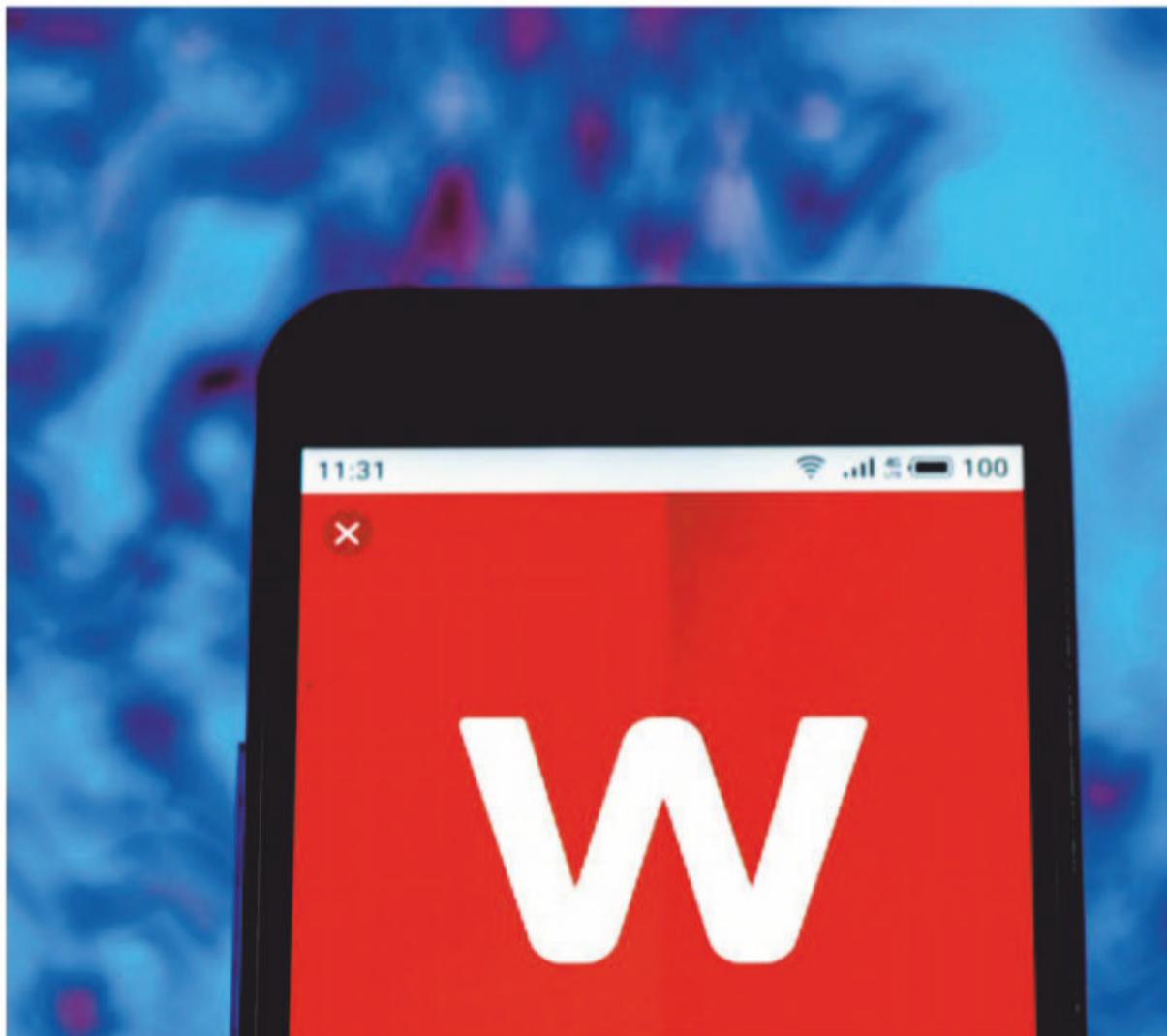
Max Kapustin of the University of Chicago estimates that every murder drives 70 residents from a city like his. Of the seven American cities most notorious for lawlessness, five lost a big share of their population in the past 30 years, notes Thomas Abt, author of a forthcoming book on urban violence called “Bleeding Out”. Booming cities like Johannesburg might grow even faster with less of it.

Firms' motivations can also be more immediately self-serving. Companies profit directly from crime-fighting. ShotSpotter has installed microphones on streets in 100 American cities to help police pinpoint where and when guns are fired. LoJack tracks stolen cars. Detective agencies such as Pinkerton and consultants like Control Risks advise multinationals on security. In Mexico corporate protection is big business, with 2,000 regulated companies and turnover of \$1.5bn in 2016. Add another 8,000 informal firms and their combined 500,000 security guards outnumber Mexico's armed forces by 80%.

Other firms see their anti-crime efforts as a tool to attract and retain workers. In Chicago local firms like being seen helping their hometown—not least if it helps them to recruit and motivate employees. “People want to work in an institution that has a mission,” says Toni Irving, head of Get In Chicago, an anti-violence corporate group. Workers crave more meaningful activities, she reports, and enjoy volunteering with anti-crime groups. If that makes the city a safer place to take a stroll, so much the better.

Risk capital

Firms will not put an end to crime—nor should they strive to. Not counting corporate taxes, Ms Irving reckons that business groups provide perhaps a tenth of Chicago's total spending on crime-prevention (the figure in emerging-world cities may be higher). In the end, public safety is the responsibility of governments. Still, until good policies render businesses' extra tithe unnecessary, it is best viewed as a kind of speculative investment in ideas that, if successful, public crime-busters can roll out at scale. ■



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Payment firms

Terminal velocity

A mega-merger intensifies the scramble to build global payment systems

YOUR HOME is about to become a department store. Of the 27% of American consumers who own voice-activated speakers, more than a quarter already use them to shop. You may soon start ordering groceries via a panel on your fridge or buying accessories through an interactive mirror in the bedroom. Social-media outlets are also after your money: before long, that red coat you liked on a friend's Instagram page will be just a click away.

The continuing boom in e-commerce—which is still growing at a breakneck 18% a year—is forcing speedy change on a once-staid sector: the invisible pipework that powers payments. On March 18th FIS, an American company which provides information technology to around 14,000 banks, agreed to buy Worldpay, a payments plumber, for \$43bn including debt—the largest deal ever in the payments industry. It marks a sharp escalation in the battle for a market that BCG, a consulting firm, expects almost to double in size, to \$2.4trn, between 2017 and 2027.

Payment technology is already pretty

nifty. When a shopper swipes her credit card at a till, the company providing terminals to the shop (the “merchant acquirer”) asks the lender that issued the card (the “issuer”) to confirm that she has enough funds. That electronic query reaches the lender—whether around the corner or

across the world—in milliseconds. If the answer is “yes”, the shop has a guarantee it will eventually receive the money, and the shopper can take the goods.

The acquirer usually requests funds from card issuers only at the end of the day, after the shop submits its full list of transactions. Payment networks, such as Visa or Mastercard, then move the money, which may take days to reach retailers' accounts. They also set the complex rules by which the issuers and acquirers they licence must abide. For example, acquirers provide insurance: they repay customers who, say, have bought tickets from an airline that goes bust before they fly. They also store the granular data needed to withhold deposits or execute partial refunds.

This system was designed for a brick-and-mortar world. But e-commerce has spawned new payment methods, such as digital wallets, and is changing constantly. Websites and apps can upgrade their software daily; acquirers might do so every quarter or two, says Chris Jones of PSE, a consultancy. Companies dubbed “gateways” now act as multi-socket adapters, connecting acquirers to morphing e-commerce firms. “Digital storefronts” like Shopify, a software company, add another layer: they cater to small vendors, enabling them to create a sleek website connected to a gateway in minutes.

Banks have been in retreat from this fast-evolving world. “They are like turkeys waiting for Christmas,” says Mark O’Keefe ▶



of Optima, a consultancy. Card issuers outsource most of their processing to technology providers like FIS. Merchant acquiring used to be part of banks' domain, but it was never part of their core business. In the past decade or so many have spun them off. The financial crisis accelerated this. In 2010 Royal Bank of Scotland (RBS) sold Worldpay to Bain Capital and Advent International, two buy-out firms, for £2bn (\$2.7bn) as a condition of the lender's bail-out by the British taxpayer.

RBS may now feel a tinge of regret. After a £9.3bn merger with Vantiv, an American

peer, last year, Worldpay is the world's largest acquirer. It says it processed over 40bn transactions in 2018. Other non-banks, such as Global Payments, have also become giants (see chart on previous page). This is partly due to organic growth. Acquiring is more profitable than other processing jobs, which have become commoditised. It is also cheaper and faster to scale on the web: installing card terminals in-store requires labour and local presence. It helps that the volume of transactions, on which acquirers levy a fee, is rocketing, propelled by voracious spending in emerging economies.

Mergers, often orchestrated by private-equity firms, have consolidated parts of the industry. Acquirers have bought gateways; big technology providers have snapped up smaller software firms. But vertical takeovers by broad technology providers of payments specialists, like FIS's of Worldpay, are new. The merger comes just two months after Fiserv, FIS's main competitor, agreed to buy First Data, a rival of Worldpay, in a \$22bn deal. Both mark the start of new phase of an M&A chess game. Pawns have been captured, but most big pieces still roam free. Since these play very di- ▶▶

Buttonwood A basket of intangibles

Why book value has lost its meaning as a measure of a firm's intrinsic worth

BABY-BOOMERS may recall, perhaps wistfully, how the golden-arched sign outside every McDonald's restaurant would proclaim how many customers had been served by the chain. As they became adults, the number kept on climbing: 5bn in 1969; 30bn in 1979; 80bn in 1990. Jerry Seinfeld, a wry chronicler of the trivial, was moved to ask: "Why is McDonald's still counting?" Do we really need to know about every last burger? Just put up a sign that says, "We're doing very well."

The counting stopped. The signs said simply: "Billions and billions served". If this seems unhelpfully vague, that is how the counting business sometimes is. Many of America's biggest companies, including McDonald's, report a negative book value, a gauge of a firm's net assets. Many more have a book value that is small relative to their market value: their shares look dear on a price-to-book basis. Much of this is down to the complexity of valuing a firm's assets in the digital age. But the result is that price-to-book is a bad guide to a stock's true value.

Stockpickers make a distinction between the price of a share and what it is truly worth. Price is a creature of fickle sentiment, of greed and fear. Value, in contrast, depends on a firm's capabilities. There are various shorthand measures for this, but true "value" investors put the greatest store by the price-to-book ratio. It is the basis for inclusion in benchmarks such as the Russell value index. Countless studies have shown that buying stocks with a low price-to-book is a winning strategy.

But not recently. For much of the past decade, value stocks have lagged behind the general market and a long way behind "growth" stocks, their antithesis. Perhaps this is because, as the industrial

age gives way to the digital age, the intangible assets that increasingly matter are not easy to put a value on. The tangible world is easier. Factories, machines, land and office buildings count as capital assets on a firm's books, because they will generate profits for many years. It is a fairly straightforward business to come up with a value for them: it is what the firm paid. This value is gradually written off (depreciated) over time to reflect wear and tear and obsolescence.

Such fixed capital assets, along with current assets (cash, stocks of unsold goods, and so on) typically make up the bulk of book value. The problem is what it leaves out. These days, the value of a firm lies as much in its reputation, its processes, the know-how of staff and relationships with customers and suppliers as in tangible assets. Putting an accounting value on these intangibles is notoriously tricky. By their nature, they have unclear boundaries. Not every dollar of R&D or advertising spending can be ascribed to a well-defined asset, such as a brand or patent. That is in large part why, with a few

exceptions, such spending is treated as a running cost, like rent or electricity.

Increasingly price is detached from book value. The median price-to-book of S&P 500 stocks is 3.0. But plenty of well-known companies, whose competitive edge rests on brands or patents, have much higher ratios or even negative book values (see chart). McDonald's has considerable brand value, which is not on its balance-sheet. It also has property assets that have been fully depreciated.

The effect of mergers is to make things murkier. If, say, one firm pays \$100m for another that has \$30m of tangible assets, the residual \$70m is counted as an intangible asset—either as brand value, if that can be gauged, or as "goodwill". That distorts comparisons. A firm that has acquired brands by merger will have those reflected in its book value, says Simon Harris, of GMO, a fund-management firm; a firm that has developed its own brands will not. Share buy-backs make things murkier still. For any firm with a price-to-book greater than one, a buy-back will diminish book by proportionately more than it lowers the value of outstanding stock. So price-to-book rises further.

Some have called for accounting rules to change. But the more leeway a company has to turn day-to-day costs into capital assets, the more scope there is to fiddle with reported earnings. Better to spur the disclosure of spending that adds to intangible value. Analysts can then make their own judgments. Mr Harris finds that adjusting book value to reflect past R&D and advertising spending makes for more useful comparisons across stocks. It is not a perfect gauge. But no single measure—whether price-to-book or billions of customers served—can ever tell the whole story.

From MacBook to Book Mac

March 15th 2019



Source: Datastream from Refinitiv

▶ verse roles, dozens of possible combinations make strategic sense, says Lisa Ellis of MoffettNathanson, a research firm.

Vertical mergers will allow companies to cut costs, gain pricing power and cross-sell products—often to banks, their former owners. This will give them the firepower to go for the real target: establishing a truly global acquiring network. Multinationals such as Hilton or IKEA would love the simplicity of signing one single contract covering their payment needs worldwide. The Worldpay deal is a step in that direction. The firm, which focuses on Europe and

America, should benefit from FIS's existing relationships in emerging markets.

Seemingly innocuous deals could precipitate the scramble. On March 11th PayPal, a digital-wallet pioneer now worth \$119bn, announced a \$750m investment in MercadoLibre, a Latin American e-commerce platform. Worldpay, which has ambitions in the region, was surely watching: PayPal uses First Data as its acquirer. FIS is already thinking about the next round. "It won't surprise us that other companies come together," says John Crawford of FIS. "We don't expect it to be our last deal either." ■

net book value and Commerzbank at 31%. But so far has Deutsche fallen that its market capitalisation is now just twice Commerzbank's, against six times as much in 2013 (see chart). Even taking into account Deutsche's talent for attracting trouble, for Commerzbank the ratio may not get better than this.

Besides extra bulk and the chance to serve more of the *Mittelstand*—Germany's myriad, mainly family-owned, companies—Commerzbank offers Deutsche improved funding. Commerzbank relies more than Deutsche on deposits, which are cheaper and stickier than funds from financial markets. Its €311bn (\$363bn) of deposits at the end of September were worth 63% of its adjusted assets; Deutsche's €553bn, 52%. So deep have been Deutsche's woes that for most of the past three years its five-year credit-default-swap spreads—the cost of insurance against its failure to honour a bond—have been wider, often by half a percentage point or more, than those of the smaller bank. Last month it sold bonds at steepish yields.

Although a merged bank would have more heft at home, it is hard to see what a takeover could do to restore Deutsche's fortunes as a global investment bank. Having wisely given up its own international investment-banking ambitions, Commerzbank has little to offer. Admittedly, Deutsche is not alone: since 2012, notes a new report by Morgan Stanley, European investment banks have lost nine percentage points of market share in America, while Wall Street firms have gained the same amount in Europe. Though Deutsche is still Europe's biggest, as well as its homeland's flag-bearer, it will need more than a merger to patch its tattered standard. ■

Commerzbank and Deutsche Bank

Urged to merge

After months of speculation, the two lenders start talking

SO MUCH FOR the sepulchral calm of a German Sunday. On March 17th, after months of prodding from the German government and chatter in the financial press, Commerzbank and Deutsche Bank, Germany's two largest listed lenders, said that they would begin exploring a merger.

A deal, both banks are at pains to add, is far from certain. If it happens, it would create Europe's third-biggest bank by assets, behind Britain's HSBC (which does most of its business in Asia) and France's BNP Paribas. It would also join together two chronic underperformers. Last year Deutsche's return on equity, a puny 0.4%, was its first positive figure for four years. Commerzbank's has bettered last year's anaemic 3% only once since 2011.

Combining two struggling banks looks like an improbable method of creating the robust "national champion" of which German ministers have been dreaming. Years of ultra-low interest rates and an overcrowded banking market—most of which

is served by public-sector and co-operative lenders—have sapped profitability, even though both Commerzbank and Deutsche Bank are well capitalised and amply liquid. A merger is unlikely to change that.

Encouragement from Berlin alone is not—or should not be—reason to merge, although the government is Commerzbank's biggest shareholder, with 15%. The right gauge is what all the shareholders of both banks would stand to lose or gain. You might suppose that Deutsche's should be keen on a fresh start. Its fall from grace since the financial crisis is a cautionary tale often told: its share price has fallen by 90% since 2007; not until 2015 did it accept that its global moneymaking machine, aka its investment bank, was *kaputt*; it is on its fourth chief executive in as many years; and so on. But its smaller neighbour may have the better (or rather, less bad) end of the bargain.

To both banks, a merger brings the promise of scale, especially in retail banking. Deutsche's share of the German market—adding its upmarket "blue" Deutsche Bank brand to the more basic Postbank—is around 11%, according to Autonomous Research; Commerzbank's is 8%. With one-fifth of the market, a combined entity would be by far the biggest in Germany, maybe enough to exert some pricing power. Cutting costs—for instance by closing branches—might take out 30% of Commerzbank's cost base, according to Magdalena Stoklosa of Morgan Stanley.

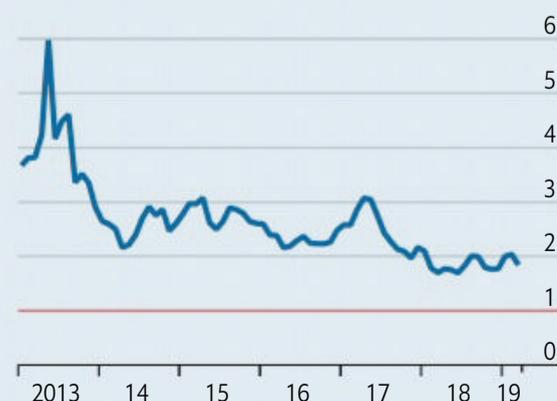
Should the pair come to talking about takeover terms, Commerzbank's bargaining position looks far stronger than it could have dreamed of a few years ago. Neither bank can be called highly valued: the stock-market prices Deutsche at a paltry 24% of



Towers of strength

The price is right

Ratio of Deutsche Bank's market capitalisation to Commerzbank's



Source: Datastream from Refinitiv

Women in economics

#EconomistsToo

WASHINGTON, DC

A dispiriting survey—and our own investigations—demonstrate the poor treatment of female economists in America’s universities

“WHY IS THIS an interesting question?” Éva Nagypál, then a junior economist presenting research at her first academic conference, had barely finished her opening sentence. She still remembers the interruption many years on. Later she came to learn that such rudeness was quite normal, and that economists were capable of worse. As a young woman, she also experienced some “inappropriate” behaviour, but brushed it off. “I could handle it,” she says. Being told she was “technically good, but not very creative” was harder to stomach. She left academic economics in 2009.

Economists have tended to be wary of reading too much into anecdotes like Ms Nagypál’s. A single data point does not prove that women are picked on or pushed away. Even Ms Nagypál’s departure from academia was complicated. She liked her colleagues at Northwestern University, but felt drawn to more collaborative, policy-relevant research. The pull of her family was also a factor.

But harder evidence of something amiss is building. Granted, more women are attaining senior positions in university economics. But women make up only around 30% of PhD students, and are likelier than men to drop away as they climb the career ladder. Among a group of 43 leading American universities, the female share of PhD students has been essentially flat for two decades (see chart 1 on the next page). That of assistant professors has fallen since 2009. Progress seems to have been a little slower than in some natural sciences, and economics remains far behind other social sciences.

Quantifying the effects of such fuzzy notions as behaviour and culture is hard. But the American Economics Association (AEA), the leading professional body for academic economists, has attempted to do just that. On March 18th the AEA published the findings of a survey of its members, examining the “professional climate”. The survey reveals many more data points than one, and finds plenty of evidence of harassment and discrimination.

More than 9,000 economists, or 20% of those eligible, completed the survey. Only two-fifths of respondents reported that they felt “valued within...economics”. But women and non-whites tended to feel worst. They were more likely to report unfair treatment when seeking an academic job and in pay and promotion. Almost half

of women reported experiencing discrimination based on their sex. Among non-whites of both sexes, 29% complained of discrimination on the basis of ethnicity.

It is possible that the sample is biased, pushing up the apparent frequency of discrimination. The disgruntled may have been especially keen to have their say. Against that, the survey may have struggled to reach those who had been so discouraged by their experience that they had left the profession altogether.

In any case, the survey yielded more than enough reports of sexual harassment. Nearly 2,000 respondents said they had been embarrassed or offended by inappropriate gestures, remarks or materials from other economists. Hundreds reported experiences of attempted or actual sexual assault by a colleague or student in the past ten years. And 267 reported that they would have been rewarded had they co-operated with unwanted sexual attention, or threatened with retaliation had they not.

These figures are still fairly raw. Later this year the AEA will release further analysis, for example comparing the results with surveys from other academic disciplines. However economics measures up, abuses of power are probably widespread. A meta-analysis of studies of the prevalence of sexual harassment in 2003 ranked academia second only to the armed forces.

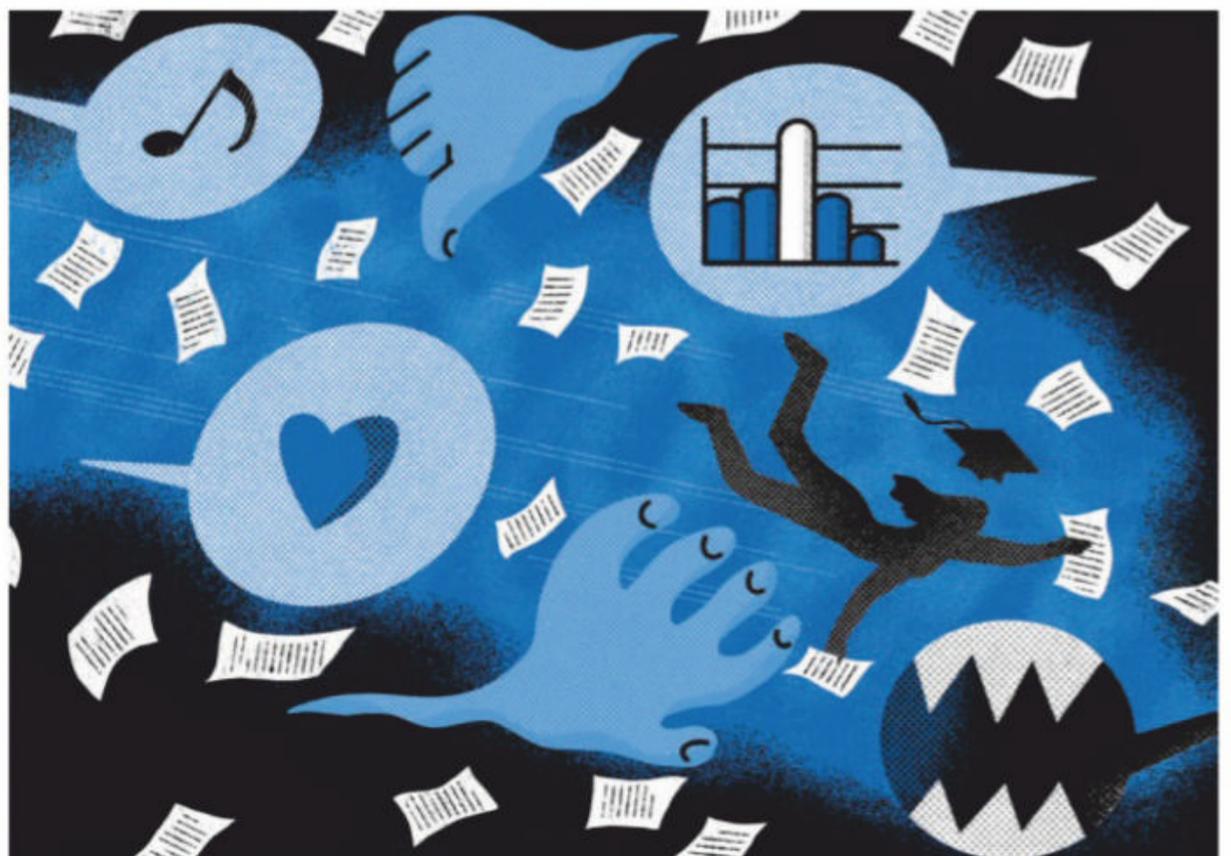
The Economist has supplemented the AEA’s survey by interviewing 30 members of the profession, some speaking on condition of anonymity, to understand where and why problems exist. Most were women and at highly regarded universities. Most had tenure. Most reported that their colleagues were kind and that they enjoyed academic life. But their experiences varied widely. And all of them said that the profession had its problems.

One reported receiving too many comments on her appearance. Another said a fellow graduate student had been stalked. Some spoke of a set of senior men who were notorious sources of unwanted attention after a few drinks. Others mentioned an academic who had been edged out of a university department after several complaints against him, including some by graduate students, of unwanted sexual advances. He was then promoted at a different university.

Our interviewees found it much easier to name prominent bullies than notorious harassers. A senior professor said that she had seen a special nastiness reserved for people regarded as vulnerable, including women. Others claimed only to have seen “assholes” who were indiscriminate in their aggression.

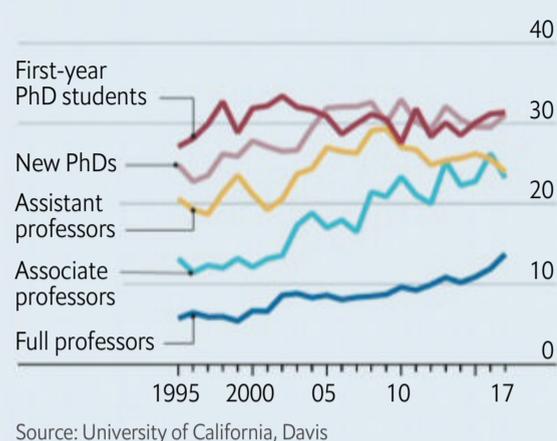
Uncovering and fixing such faults is difficult. Like any profession, economics is hierarchical. As in other academic disciplines, success depends on peer review. A formal complaint against someone higher up the ladder invites retaliation. Your research may be trashed. Your chances of promotion may be blighted. If the perpetrator is at a different university, you may not even know who to complain to.

The potential for abuse of power starts early. There is a growing trend for young ▶▶



Wobbly ladder

United States, economics departments, selected universities, women as % of total



► economists to work as research assistants to leading academics, as a pathway into prestigious PhD programmes. If the academic refuses to write them a good reference, their career may be over before it even starts. PhD students are just as reliant on their seniors. Success requires letters of recommendation, invitations to conferences, help with research ideas and perhaps joint research. In all these areas women were far likelier to report unfair treatment than men in the AEA's survey (see chart 2). Non-whites were also more likely to report it than whites.

Unfair treatment can be unwitting. Senior professors may be unconsciously drawn to favour students who look like their younger selves. They may like chatting about work over a drink, which young women may find uncomfortable. One PhD student said she felt that female students found it harder to connect with male professors. She suspected that was partly due to unspoken worries about harassment.

On the job market, too, interviewees detected implicit bias. One senior woman recalled hearing statements such as "Her paper is really good—she works really hard" alongside those like "His paper is OK but he's super-smart." Writers of recommendation letters may not take into account time off for child-rearing. Women may be held to higher standards in evaluations of their research. Two recent studies by Erin Hengel of the University of Liverpool found that their papers are more readable than those written by men and cited more often, suggesting a higher hurdle for publication. Heather Sarsons of the University of Toronto has found that women get a smaller boost than men in their chances of tenure from each paper they co-write.

Then there is the style of seminars, for which economics is notorious. Interruptions and intense questioning are supposed to weed out errors and uncover sloppy thinking. And several interviewees told of supportive sub-fields and departments, where the primary purpose was not to tear down the speaker. But one said she felt like

quitting after seeing how a female presenter was treated. Another economist reported being asked during a presentation whether she knew any economics, and being interrupted incessantly.

Even if everyone gets the same treatment, minority groups (which in economics includes women) may find such an environment unpleasant. The PhD students we spoke to said they were put off by the seminar style. Among macroeconomists, whose field is both particularly short of women and infamous for bare-knuckled seminars, 40% of those responding to the AEA's survey felt "disrespected"; among female macroeconomists, 70% did.

Change will be slow. Assessments of young economists' potential will always be subjective to a degree. Some senior economists shudder, with justification, at the thought of sitting through a sloppy seminar in silence, and worry that a cuddlier environment will soften intellectual rigour.

But experimentation is happening. Some departments have begun to try different seminar styles, for example insisting that presenters should be allowed a minimum time to speak before being interrupted. Some have circulated reminders that people should raise a hand before asking a question, or be mindful of the time they are taking as they make their point.

Ideas are circulating about ways to attract and support junior and female researchers. The most recent issue of the *Journal of Economic Perspectives* contained a collection of papers on the determinants of women's success in PhD programmes and ways to "make economics work for women at every stage". One, by Leah Boustan and Andrew Langan of Princeton University, found that departments with better outcomes for junior women also hired more female faculty members, provided "collegial" research seminars and were more

aware of gender issues.

Another paper by Mr Langan, covering accounting, sociology and political science as well as economics, found that when women become department chairs, the female share of graduate students goes up with no deterioration in candidates' quality. Women in those departments also publish more papers and are likelier to get tenure. The difference may lie in female heads of department sharing out non-academic duties more fairly. Over 40% of the women in the AEA's survey reported being given a disproportionate load.

Young economists are also speaking out. Last year the *New York Times* reported that Roland Fryer, a prominent economist at Harvard, had been found by the university to have created a hostile work environment for research assistants in his laboratory, which he denies. After Mr Fryer resigned from the AEA's executive committee last December, several hundred research assistants and graduate students from dozens of universities signed an open letter in *Medium*, an online magazine, pointing out that bad behaviour was "too often an open secret among graduate students and junior faculty".

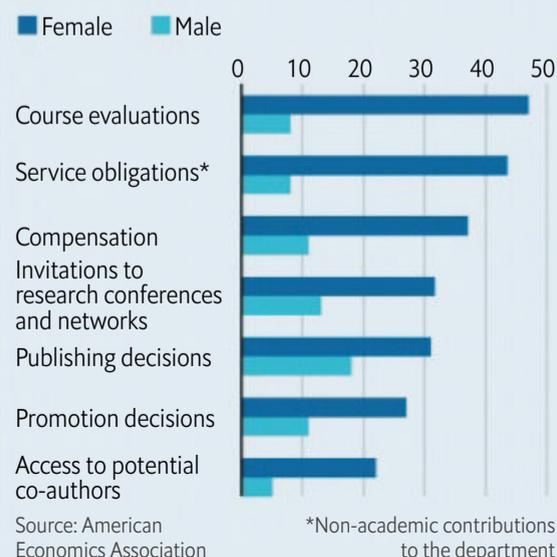
Some have accused economists of being slow to tackle discrimination in their profession because of their conviction that market forces would drive it out. "It was more like benign neglect," says Ben Bernanke, a former head of the Federal Reserve and the AEA's president. "Nobody said we should prevent women from becoming economists. But there weren't a lot of people saying we should take affirmative steps to make it more accessible to a broader range of people."

Now the AEA is taking action. Mr Bernanke, Olivier Blanchard (his predecessor as president) and Janet Yellen (his successor and another ex-head of the Fed) announced several measures with the survey's findings. The AEA will pay for an ombudsman to hear and record complaints about harassment and discrimination, and to provide advice. Members will vote on proposals to add teeth to an expanded code of conduct. Penalties for misbehaviour include ejection from the AEA's activities, termination of membership and a notification to an offender's employer. Retaliation against anyone filing a complaint can also invite disciplinary action.

This amounts to recognising that although economists may like to believe that their profession is a meritocracy, in which the best rise to the top, the reality is much murkier. As things stand, good work may be crushed along with the bad. And change would, if nothing else, make many economists happier. Ms Nagypál cannot say whether she would have stayed in a more supportive environment. But she knows that "it would have been nice to try." ■

Marginalised

"Have you personally experienced discrimination or unfair treatment?"

United States, academic economists, % responding "yes"
November 2018-February 2019

Free exchange | Natural talent

Alan Krueger, a quiet revolutionary of economics, died on March 16th



FEW ECONOMISTS can claim either to have successfully challenged the bedrock beliefs of their field or to have altered how governments pursue policies that affect millions. Alan Krueger, who died on March 16th, managed both. In research with David Card in the early 1990s, Mr Krueger showed, through careful data analysis, that increases in the minimum wage did not lead to reductions in employment, as standard models suggested they should. The research, which the authors summarised in a seminal book, “Myth and Measurement”, published in 1995, drew a scathing initial response. Critics assaulted their motivations, data and analysis until allowing, finally, that the pair had a point. Their work changed economics and politics. It also exemplified Mr Krueger’s career as both scholar and public servant.

Mr Krueger did not come across as the combative type. He was gracious and generous in person, and a skilled communicator. That came in handy during his time in Washington, as chief economist of the Department of Labour when Bill Clinton was president, and in the Treasury and the White House under Barack Obama during the most tumultuous economic times since the 1930s. He often wrote for the *New York Times* and appeared on television. Helping people understand what economists had learned was, he believed, part of an economist’s job.

His passion, however, was the craft of economics. In 1987, as a newly minted PhD, Mr Krueger accepted a position at Princeton University, not far from the New Jersey town where he grew up. From the outset he was interested in understanding why workers earned what they did. But he recognised that the question could not be answered satisfactorily without rigorous and careful study of data. Mr Krueger subscribed to the *New England Journal of Medicine*, and admired the way each article began by discussing the paper’s research design. Economics badly lagged behind medicine and the physical sciences in the use of careful empirical work, not least because of the difficulty of running experiments on messy real-world interactions. In the late 1980s, however, some economists were honing methods to study “natural experiments”, in which a more or less random, localised event allowed researchers to compare the experiences of affected and unaffected groups, in something of the way that a laboratory scientist might compare

treatment and control groups.

Messrs Card and Krueger applied the approach to studying the effects of changes in the minimum wage. At the time most economists assumed that labour markets were more or less competitive. Workers could easily leave firms that offered them too little; firms had to accept prevailing market wages and would only hire as many workers as made financial sense. An increase in the minimum wage, by making labour more expensive, should thus translate directly into lower employment. But did it? Beginning in the early 1980s, increases in America’s national minimum wage were infrequent and too small to overcome the effects of inflation. Some states responded by raising their own minimum rates, creating just the natural experiment Messrs Card and Krueger needed. They studied the effect of a rise in New Jersey’s minimum wage in 1992 on employment in fast-food restaurants, using neighbouring Pennsylvania, which had not enacted an increase, as a comparator. They did not detect any negative effect on employment.

Though arguments about this research rumbled on for years, its impact has been undeniable. It opened the floodgates to a wave of work with natural experiments. It also stirred debate about competition in labour markets, to which Mr Krueger would contribute for the rest of his life. Markets might not be very competitive at all, some economists reckoned, because it is costly for workers to find and switch jobs, or because large firms dominate markets or collude to suppress pay. In a talk last August, Mr Krueger cited a stream of recent research in arguing that stubbornly weak wage growth is strong evidence that workers have too little bargaining power, and that the economy is suffering as a result. It is wrong to label such dynamics “market imperfections”, he mused. As Mr Krueger pointed out, Adam Smith himself thought labour markets worked that way.

A repertoire full of tunes

Mr Krueger’s papers explored how factors from education to race to technology influenced workers’ prospects, often rustling up new data sources in the process. He drew a link between America’s opioid-addiction crisis and declining participation in the labour market, especially among men. He made a habit of attending a festival for twins with Orley Ashenfelter, a mentor and Princeton colleague, to seek subjects for studies of the influence of education on earnings, using genetic similarities to isolate the effect. Mr Krueger’s curiosity was insatiable. He published on a remarkable variety of topics. After the attacks of September 11th 2001, he explored the factors contributing to the decision to become a terrorist. In a book in 2007 he argued that political repression, rather than a dearth of economic opportunity, did most to foment terrorism. He studied the entertainment industry, to understand how technology and globalisation are affecting the economics of popular music (another passion): a book is due out in June.

And, often in partnership with Daniel Kahneman, a Nobel laureate who pioneered the application of psychology to economics, Mr Krueger dug into the measurement of subjective well-being, hoping to find better ways of capturing shifts in what matters most in life (see Graphic detail). The goal of economic progress is after all to help people lead more satisfying lives, and to foster its pursuit, governments and scholars need reliable data. It was a message he preached throughout his career. His professional example inspired scores of young scholars, whose work is a monument to his memory. Both economics and American public life are much poorer for his death. ■



**Chateau in Normandy, France
For Sale**

18th century French chateau in the heart of Calvados - Normandy, France, set within 12 acres (4.8 hectares) of walled parkland.

The grounds feature a fountain, well-manicured lawns, flower gardens, woods and tennis court.

The chateau is comprised of 9 bedrooms, 8 bathrooms and 3 living rooms, with listed hand painted wall murals. The estate is in perfect living condition.

Facilities are in place both inside and outside to host weddings and events.

Additionally there are numerous outbuildings, including a 3 bedroom guest cottage, two 1 bedroom apartments and office space.

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Nico Colchester

Journalism fellowships

THIS YEAR will see the five-yearly elections to the European Parliament in May, followed by a wholesale shake-up in the leadership of the European Commission, the European Council and the European Central Bank. A mood of angry discontent among many voters, fears of another slowdown in the euro-zone economy and continuing success for populist parties in many countries are combining to create deep concerns about the likely outcomes. Support for the European Union is in most countries higher than it has been for many years, yet the popularity of political leaders such as Emmanuel Macron and Angela Merkel has slipped, while Theresa May is preoccupied with delivering Brexit. There are also continuing doubts about the state of democracy in several countries in central and eastern Europe. All this would certainly have given Nico Colchester, one of the finest reporters on European affairs of his generation, plenty to write about in his original and inimitable way, which included such ideas as a Mars Bar index and the division of countries and their leaders into the “crunchy” and the “soggy”.

In yet another momentous year for the European Union, here is your chance to emulate Nico’s successful career by launching yourself into the world of journalism at two of the world’s most global and well-respected news organisations.

What do the prizes involve and who is eligible?

Two awards are on offer: one, for a British or Irish applicant, will consist of a three-month fellowship in continental Europe at the *Financial Times*; the other, for an applicant from elsewhere in the European Union, will be a three-month fellowship in London at *The Economist*. The fellowships are open only to citizens of the EU or UK. Both winners will receive a bursary of £6,000 to cover accommodation and travel.

Who are the fellowships suited for?

The fellowships are intended for aspiring or early-career journalists with bold ideas and a lively writing style, each capable of working amid the excitement and pressures of a modern newsroom. The fellows should have a particular interest and curiosity about European affairs, as the prizes aim to help continental writers better understand Britain and British writers better understand the continent.

What is this year’s subject?

**How healthy is democracy in the European Union?
You can answer this question at the European, regional
and/or national level.**

How to apply:

Please send a submission on the subject above, together with a cv and covering letter. The submission can be:

- an unpublished written article, blog post or data-rich essay of max 850 words (pdf or doc)
- an unpublished 2-minute video (avi or mp4)
- an unpublished 2-minute podcast (mp3)

Please make sure you submit your work in one of the formats specified. Big files can be sent using a file-transfer hosting service or by submitting a password-protected link.

Entries should be sent, **by the closing date of Friday April 5th 2019**, by email to ncprize@economist.com.

Shortlisted candidates will be asked to provide confirmation of their citizenship.

Successful applicants will be notified by the end of May 2019.



Insects

Nothing in the cry of cicadas

EAST LULWORTH, DORSET

The insect apocalypse is not here. But there are reasons for alarm about the long-term health of many species

“WE WERE SHOCKED,” says Brad Lister, of Rensselaer Polytechnic Institute in Troy, New York. “We couldn’t believe the first results. I remember [in the 1970s] butterflies everywhere after rain. On the first day back [in 2012], I saw hardly any.” Dr Lister is describing the Luquillo forest of Puerto Rico, where he recently carried out a census of insect life and found it had been almost wiped out in 40 years. But he could be talking about many other places. Over the past few years, scores of scientific studies have found declines in different measures of insect life and health, all of the order of 50-80%, in areas as far apart as Germany, California and Borneo.

The findings have triggered alarm, almost panic. Animals, mostly insects, pollinate 87% of flowering plants, according to a recent study by the UN’s Food and Agriculture Organisation (FAO). Without insects, most plants could not reproduce. They break down and recycle the nutrients that plants need for photosynthesis. They decompose organic waste and feed a large

proportion of all birds and bats. E.O. Wilson, an American biologist, calls insects “the heart of life on Earth.”

The studies suggest that such life is in peril. One talks of “the dreadful state of insect biodiversity”. Its authors give warning of “the extinction of 40% of the world’s insect species over the next few decades”. If insects really do face extinction, it would be an immense environmental crisis. But how real is that possibility? What do the data actually tell us?

In terms of the number of species, insects are by far the most abundant of life forms. Scientists have identified and described over 1m species of insect, compared with only about 6,000 mammals and

18,000 birds. Insects are so numerous that they contain three times as much mass as humans and 30 times that of all wild mammals. “To judge by his creation,” a geneticist, J.B.S. Haldane, once quipped “God must have an inordinate fondness for stars and beetles.”

Little about this astonishing bounty is known. Using computer models of ecosystems, Nigel Stork of Griffith University, Queensland, estimates there are 5.5m species of insect and 6.8m of terrestrial arthropods (the wider category that includes spiders and crustaceans). That implies over 80% of insects remain undiscovered. Arthur Shapiro of the University of California, Davis, tells the story of travelling by bus across Patagonia, when he broke down in the middle of nowhere. In the two hours it took to mend the engine, and while he stayed within sight of the vehicle the whole time, he found three species of butterfly new to science. “That’s how little we know.”

Even when individual species are described, the process yields only partial information. Scientists have little hard data on what the vast majority of insects eat, how mobile they are or what determines their reproductive success. There has been almost no long-term monitoring of their numbers. “Around and beneath our feet,” writes Dr Wilson, “lies the least explored part of the planet’s surface.”

For many years, it did not seem possible or necessary to study insect populations. ▶▶

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▶ In their murmuring trillions, insects seemed safe from the pressures that were driving predatory mammals towards extinction. It was unimaginable that so many could disappear. As a haiku by Basho, a Japanese monk, puts it, “Nothing in the cry of cicadas suggests they are about to die.”

In the 1970s a few disturbing signs of decline began to appear. Long-distance drivers across America and Europe reported that their windscreens were no longer splattered with bugs. Pilots in the Arctic Circle now describe the same thing. Urban streetlights are no longer enveloped by clouds of photophilous moths. Insect-eating birds began to disappear. But these signs could be explained away by, say, more aerodynamic car designs, or changes to farming. The evidence was anecdotal.

There are, though, a few exceptions to the rule that no long-term databases of insect populations exist. The biggest is kept by Butterfly Conservation, a charity based in Dorset in southern England. It has records from 1690 but its most important data begin in 1976 when, concerned by the anecdotes of decline, two government scientists designed a simple monitoring system. Every week in summer, volunteer butterfly-spotters walk slowly along fixed paths, or “transects”, and log every butterfly and moth they see within 2.5 metres of their path. In Hethfelton Wood, near Wool, in Dorset, the path loops through a forest that, now partially felled, is reverting to heathland. Volunteers have logged 35 species of butterfly there since 2000, ranging from Graylings and White Admirals to thriving species such as the Silver-Washed Fritillary, which is rare elsewhere.

The project, called the United Kingdom Butterfly Monitoring Scheme (UKBMS), proved such a hit with Britain’s amateur naturalists that the scientists were overwhelmed with data. Now, 2,000 volunteers monitor more than 2,500 sites and produce 3m records a year. It is by far the most detailed insect data set in the world and, unlike most, measures both whether a species occurs in an area and how abundant it is. It shows that between 1976 and 2014, 32 of Britain’s 56 native butterflies declined in numbers, 21 by more than 40%. The biggest falls were among species classed as habitat specialists, with limited ranges or which feed on a small number of plants.

A second long-term set of data also monitors butterflies, is older and, heroically, is conducted by just one person. Every two weeks since 1972, Professor Shapiro of UC Davis has trekked along ten transects in central California, noting the butterflies he sees (159 species and subspecies). Since 1972, the number of species has fallen in half the transects and risen in one; 2017-18, he says, was “a terrible, perhaps even catastrophic butterfly year”.

The third data set is kept by the Krefeld

Entomological Association, a group of professional and amateur naturalists in a town near Dusseldorf in western Germany. Their headquarters is lined with wooden cases full of insect specimens found in the surrounding grasslands, dunes and woods, meticulously labelled. In 1989 the society began setting up so-called Malaise traps, large tent-like structures that trap flying insects, in local sites in spring and summer. There are now 63 sites. This collection method records the total biomass of insects in the trap, a good measure of the amount of food available to birds and other predators but which tells you nothing about which species are being caught or how many of each there are. More than half the traps have only been checked once since 1989 and even those that are checked more than once are not monitored in consecutive years. The results are not those of a classic longitudinal study.

Buggy data

But when Caspar Hallmann of Radboud University in the Netherlands combed through the data in 2017, all doubts about their significance were silenced. Between 1989 and 2016 he found the biomass of flying insects in this corner of western Germany fell 77%, or over 5% a year. Making the results more remarkable is that the traps were set up in nature reserves which, though hardly pristine, are better protected from clouds of insecticides than most land in western Europe. “We were amazed,” says Dave Goulson of the University of Sussex, one of the co-authors. The study was the third most frequently cited scientific study (of all kinds) in the media in 2017 and pushed the governments of Germany and the Netherlands into setting up programmes to protect insect diversity.

Since then, more surveys have confirmed the results. Early this year, Francisco Sánchez-Bayo of the University of Sydney and Kris Wyckhuys of the University of

Queensland, reviewed all the studies they could find mentioning insect decline. Theirs was the first study of studies. The authors found that 53% of *lepidoptera* (butterflies and moths) were in decline; 49% of *coleoptera* (beetles) and 46% of *hymenoptera* (bees, wasps, ants and sawflies). Over a third of insect species, they claimed, are threatened with extinction.

That species are failing in some places is not in dispute. What is less clear is whether the decline is global. Drs Sánchez-Bayo and Wyckhuys found a mere 73 papers. That is not enough, argues Alex Wild of the University of Texas, Austin, to say much about anything globally.

There have been no surveys of wild insect numbers in India, China, Siberia, the Middle East or Australia and only a single study each in South America, Sub-Saharan Africa and South-East Asia. These areas include almost all the tropics where the majority of insect species are thought to live.

Most of the biggest declines have been measured in Europe and the United States, where the human footprint lies heaviest on the landscape and where modern agricultural methods are almost universal. Given the paucity of evidence, it is impossible to say whether insect numbers really have declined the most in these two areas or whether they have fallen everywhere but these are the places that have been studied.

It is true that all 73 studies show declines. But that is because the authors went looking for that result. They typed the search terms [insect*] and [declin*] and [survey] into a database. “Estimates based on this ‘unidirectional’ methodology,” argues Chris Thomas of the University of York in Britain, “are not credible.” Nor do all studies show a decline (though they were not captured by the search). A recent study found pollinators are increasing in undisturbed habitats in south-eastern Spain. “This provides evidence,” that report says, “that pollinator declines are not universal ▶▶



Fishing for insects

▶ beyond anthropogenic ecosystems.”

No less important, the relationship between declining insect numbers and damage to ecosystems is not a simple linear one. Both Drs Sánchez-Bayo and Wyckhuys and the UKBMS found that generalist pollinators (such as Brown Argus and Gatekeeper butterflies) are doing less badly than specialists, such as the White Admirals, which are now extinct in some regions. Generalists are presumably moving into niches vacated by specialists, a process that is not without risks. At low levels of diversity, ecosystems become vulnerable to diseases that can sweep through a single species. Nevertheless, this process is a reminder that insect ecosystems are more resilient than they sometimes appear.

That is also true of the floral ecosystems that depend on insect pollinators. Jane Memmott of the University of Bristol investigated what happens when insect species die out by gradually removing one pollinator after another in a controlled environment and keeping track of what happened to the plants. She found that, depending on which species was removed first, most plants managed to hang on even after more than two-thirds of insects had been removed, illustrating the resilience of ecosystems. Only when more than 90% of insect species were removed, did floral diversity collapse.

Buzz off

All of this provides reasons to be cautious about extrapolating too far from the data. But there are still three big reasons to worry about what is known.

First, the scale. Declines of more than 50% in most measures of insect health seem more severe than the diminution in other taxonomic ranks. A British study from 2004 found that insect species are declining faster than birds or plants. Almost all species and subspecies are affected, regardless of the altitude at which they live. Declines have been drastic even in protected reserves.

Second, it is worrying that so many influences are contributing to the decline. It is as if, in the insects' world, everything is going wrong at once. The main causes seem to be, in order of importance: habitat loss (97% of wildflower meadows have been grubbed up in Britain since the 1930s); intensive farming, which leaves fewer unproductive parcels of land for wildlife; pesticide use; and the spread of diseases and parasites such as the *varroa* mite, once confined to East Asia where local bees had a measure of resistance, but which is now killing honeybees worldwide. David Wagner of the University of Connecticut calls this “death by a thousand cuts”.

Third, insects pose a less familiar sort of environmental problem, that of dwindling abundance. Biologists often think of biodi-

versity loss in terms of extinctions, especially of top-of-the-pile predators. But when a species is abundant, ecosystems come to depend on profusion, and a decline short of extinction can disrupt their workings profoundly. As Dr Memmott's experiment showed, the impact may be delayed but it will occur eventually.

One of the unnerving possibilities of insect decline is that it may have been going on decades before long-term monitoring

started. After all, modern agricultural practices were well under way in the 1920s. This in turn could mean that the decline documented in Europe and America is even greater than it seems. That does not mean a global insect collapse is imminent, but the data do suggest there are good reasons for concern. “In the past three months,” says Dr Lister, “my fear level has gone up. I worry that we might be reaching a point where insect decline becomes irreversible.” ■

Medical devices

Powered by the heart

A way to charge pacemakers using the heart's own muscle

FOR THOSE whose hearts occasionally go off rhythm, pacemakers are, quite literally, life savers. By providing a small electrical jolt at the right moment, they can keep a heart working at the appropriate pace. Their main drawback is that they use batteries. Even the best of them eventually run out of energy, and replacing the batteries requires surgery.

Since surgery is generally best avoided, the search has been on for long-lasting power sources. Various options have been explored, including, in the 1970s, plutonium. Nuclear-powered pacemakers have thankfully fallen out of fashion and today, devices with lithium batteries last between 5 and 15 years. Zhang Hao of the Second Military Medical University, in Shanghai, and Yang Bin of Shanghai Jiao Tong University sought a way of recharging a pacemaker's battery by scavenging energy from inside the body. As they report in the journal *ACS Nano* they have used the heart muscle itself to power a tiny generator.

Previous attempts to use cardiac muscle power to run pacemakers relied on piezoelectric materials. These release electrons when deformed, and can be attached to beating hearts so that they are slightly bent with each heart beat, generating electricity. This has worked, but not well enough: the output has rarely exceeded five microwatts, while most pacemakers require at least ten.

Dr Zhang and Dr Yang speculated that they could improve matters by arranging for their piezoelectric composites to be more dramatically deformed. First, they created a small capsule from a sheet of flexible polymer a tenth of a millimetre thick. After compression, this capsule would return to its original shape. They then attached strips of piezoelectric composite to either side of the capsule, attached electrodes to these strips, and covered the



Tick tock

strips with a protective layer of silicone. This layout meant that the strips were slightly bent from the beginning and required only a tiny, brief pressure to generate 15 microwatts.

The question was where to put the capsule, either in or on the heart, in order to get a similar effect. A study of cardiac anatomy suggested the pericardial sac, at the organ's base, would be ideal. It would squeeze the capsule tightly as the heart contracted and still keep a firm grip on it when the heart was relaxed.

To test this idea, the capsule's electrodes were attached to a commercial pacemaker that had had its battery removed, and surgically implanted into a 50kg Yorkshire pig. The capsule generated enough power for the pacemaker to function normally. Whether such an arrangement will pass human trials remains to be seen. But if it does, the days of pacemakers that need battery replacements, with all their associated surgery, may be numbered. ■

Cannabis

Strong pot is hot**Raising the risk of psychosis**

ROYAL GORILLA, Girl Scout Cookies and Fat Banana are just a few of the improbably named strains of high-potency cannabis out there. In the former, levels of tetrahydrocannabinol (THC), the chemical behind the psychological effects of cannabis, are above 25%. Reviewers describe it as “overwhelming” for novices and a “beautiful euphoric couch-locking experience” for others.

However enticing that may sound, regular use of cannabis with a potency greater than 10% increases the risk of developing psychosis five-fold, according to a study published this week by the *Lancet*. It also found that using less potent strains daily increased the risk three-fold. Marta Di Forti, a clinical scientist at Kings College in London, and her colleagues looked at cannabis use among 901 European patients newly diagnosed with psychosis. A non-smoking control group was recruited from the general population.

The study adds substantial weight to the evidence linking cannabis to the onset of psychosis. It also suggests that differences between varieties and how often they are used could help explain why rates of psychosis among cannabis users vary across Europe.

Other factors, including genetic susceptibility, stress and injury, are also thought to be at work. Nonetheless, a growing body of evidence makes it likely that cannabis use is triggering mental-health problems in Europe. This may be particularly true in London and Amsterdam where high-THC weed is prevalent. In London, 30% of new cases of psychosis in the study were estimated to be tied to strong cannabis—or an additional 13.8 cases per 100,000 people every year.

With the relaxation of cannabis laws in the United States and Canada, many will wonder what this means for countries still developing their own policies. Given the impracticality of removing high-potency strains from the illegal market, the finds may support calls for legal, regulated sales of less harmful strains. It is difficult to know how this would affect public health. However, as one scientist remarked recently, while laboratory animals are an expensive way of understanding the risks of cannabis use, “North Americans come free.”

Anthropology

Big people, big gods**On the origins of all-seeing gods**

HORUS, AN ANCIENT Egyptian sky god, was often depicted as a sharp-eyed falcon. Lord Buddha’s eyes are supposed to be able to look in four directions at once. The god of Abraham sees everything, always. A “Big God” of this sort—a supernatural “eye in the sky” who cares whether people do right by others—is a feature of most of the world’s top religions. But it was not always so. Anthropological research suggests that the gods who watch over small societies tend to demand only that people show deference to them. Big Gods come later.

One theory holds that this is because small societies do not need a supernatural policeman. If everyone knows everyone else, antisocial elements are easily managed. But as societies grow, and especially as they absorb ethnically and culturally diverse groups through conquest, a different policing mechanism is needed. What could be better than an all-seeing eye that enforces co-operation between friends and strangers alike?

If this theory is correct, it raises another question: which comes first, a Big God that permits a big society, or a big society that requires a Big God? That question is addressed by a paper published in this week’s *Nature* by Harvey Whitehouse of Oxford University and his colleagues.

Over the past eight years the team has built a historical database, dubbed Seshat after a goddess of knowledge who was Horus’s contemporary. With the help of a small army of historians and archaeologists, they have accumulated data on more than 400 societies that have existed in the past 10,000 years.

In previous research, the group identified 51 highly correlated variables that gauge a society’s complexity, such as population size, the presence of bureaucrats or paper money. They have now asked how this composite indicator of social complexity relates to the presence, or absence, of moralising gods.

Seshat divides the globe arbitrarily into 30 regions. Twelve housed societies that offered data on their complexity before and after the emergence of Big Gods. In ten of these 12 regions, Big Gods appeared about 100 years after a society took a leap forward in complexity, with populations in the region of 1m.

That suggests Big Gods are a consequence of big societies, not a cause of them. But interrogation of Seshat revealed

another religious phenomenon that played a role in driving societies towards greater complexity: frequent, collective rituals such as daily food offerings to gods. These rituals predate Big Gods in nine of the 12 regions by long periods of time, around 1,100 years on average.

Dr Whitehouse’s hypothesis is that, because they were easy to learn and were performed often, such rituals may have allowed beliefs and practices to spread to much larger populations than had previously been possible, helping to unify those populations around a common identity. Only subsequently do Big Gods emerge. Both innovations seem to have consolidated or stabilised societies that had recently expanded. If true, this would fit with findings the same group published last year.

On that occasion they tested a theory that has been popular for several decades: that societies became recognisably “modern” in the mid-first millennium BC, during the so-called “Axial Age”, the period in which figures such as Plato, Buddha and Zoroaster appeared on the scene, promulgating moralising ideologies.

Instead, the latest study showed that the various components of that age, including legal codes and moralising gods, emerged gradually over a much longer period, starting in the third millennium BC and ending after the appearance of the first complex societies. If Dr Whitehouse and his colleagues are correct, today’s religions did not create modernity but, in the past at least, they held it together. ■



I’m watching you



Comedy and censorship

Wax and gold

ADDIS ABABA

In a new political climate, artists are starting to poke fun at Ethiopia's leaders

AYALKIBET, A PORTLY man in a garish white suit, is taking an oath. Hand raised, expression sombre, he reads a pledge to administer his café wisely. Four colleagues nod in approval. “But only for a month,” prompts one, following the text as he recites it. Ayalkibet skips over that proviso; his colleagues look up in alarm. So begins a recent episode of “Min Litazez?” (“How can I help you?”), a hit Ethiopian sitcom, in which the temporary manager schemes to extend his time in office.

Who might this represent? Not, surely, Ethiopia's new prime minister, Abiy Ahmed, who has convulsed the country's politics by promising free elections next year and to step down if he loses. And, indeed, “Min Litazez?” is too clever for such clunky comparisons. But the audience is invited to draw their own, and many viewers have seen a reflection of Abiy in the protagonist. In previous seasons there was no doubt that Ayalkibet—then a petty tyrant of the workplace—stood in for the ruling party's

authoritarian old guard, whom Abiy shoved aside last March. Now, as Ethiopians acclimatise to a more gentle leadership, the character has been transformed. No longer a dictator, he is a well-meaning but pompous honcho with a weakness for the limelight.

“Min Litazez?” is revolutionary, in an understated way. Not only does it lampoon Ethiopia's leaders; it does so on a national channel owned by the ruling party. “We've never had anything like this,” says Elias Wondimu, an intellectual who made a guest appearance last year. The show's popularity, and the imitations it has spawned, illustrate how subversive comedy is tiptoeing into the Ethiopian mainstream, upturning decades, even centuries, of cultural norms. Amid the laughs, the high-jinks offer a glimpse into the psyche of a conservative society loosening up fast.

Until 1974 Ethiopia was an imperial monarchy. Next came a Marxist junta known as the Derg, and then, after 1991, the

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iron-fisted rule of the Ethiopian People's Revolutionary Democratic Front. Each regime upheld an absolutist conception of power that left little room for public dissent, least of all satire. Under the Derg this meant a total ban on the free press. The constitution of 1994 theoretically prohibited censorship, but it continued in practice. Until last year the government would insist on cuts to films, TV shows and plays—or ban them altogether.

The flipside of this draconian approach was a sophisticated culture of concealment, in which resistance was disguised as obedience. “You bow in front and fart behind”, as a local proverb has it. In Amharic, the most widespread language, this is known as *samna—warq*, or “wax and gold”: the studied use of words for ambiguous purposes. For centuries poets and *azmaris*, the bards and original satirists of highland Ethiopia, celebrated the glory of feudal overlords in songs that shrewdly hid their true meaning. “The more repressive the government was, the more vocal the oral satirists became,” says Tigab Bezie of Bahir Dar University. In diluted form, the technique still persists in everyday humour. “We've developed a keen sense of self-censorship,” says Elias. “You use wax-and-gold strategies to save yourself.”

But the subterfuge has gradually become less necessary. After disputed elections triggered mass protests and a fierce ▶▶

► crackdown in 2005, a CD of jokes making fun of the then-prime minister, Meles Zenawi, became an underground sensation. The government quickly pulled “Repressed Jokes”, as the recording was known, from the market. Since then dissident humour has migrated—and flourished—online. There is a booming industry of political memes and what Engdawork Endrias, an Ethiopian literary scholar, calls “informal essays”: writings, often posted on Facebook, which can be savagely satirical. YouTube offers a platform for risqué sketch shows such as “Fugera News” (though that programme, now discontinued, was made abroad and its presenter hid his identity).

Funny ha-ha

Now such material is making the leap to television. “Yaz Leqeq” (“Temperamental”), a sketch show that aired on a satellite channel last autumn, offered impersonations of prominent politicians (including the prime minister). New sitcoms tackle current affairs with increased daring, while some older ones, such as “Betoch” (“Families”), are tentatively following suit. In January Eshetu Melese, a stand-up comedian, performed his hour-long show about torture under Abiy’s predecessors on television. He says he has since been approached by several producers keen to bring a version of “The Daily Show” to Ethiopian audiences.

These innovations share some common themes. The programmes tend to be self-consciously didactic. In “Yeemama Bet” (“Mama’s House”), a sitcom set in a traditional drinking den, the six characters, who represent various ethnic backgrounds, come together at the end of each episode and resolve their differences. So do those in “Aleme” (“My World”), which is set in a guesthouse. Eshetu says that during his stand-up he explains the political messages at the end of each joke, pointing out, for example, that Ethiopia needs a proper human-rights commission.

In their open political boldness, all these innovations follow in the footsteps of Bereket Belayneh, a playwright whose sensationally popular one-man show, “Eyayu Fungus”—first staged three years ago and soon to air on television—made fun of low-level officials as well as Ethiopians themselves. His protagonist, a madman, excoriates the audience for their failures, moral and otherwise. The new trend is “not about entertainment”, says Behailu Wassie, the director of “Min Litazez?” “The intention is to get a better country.”

The hope is that humour can act as a tonic for long-standing ethnic tensions that have persisted, even worsened, since Abiy’s arrival in office. Surafel Daniel, director of “Yeemama Bet”, says its angriest critics are those who wrongly perceive a gag to be made at the expense of a particu-

Our Man Down in Havana: The Story Behind Graham Greene’s Cold War Spy Novel. By Christopher Hull. *Pegasus Books*; 324 pages; \$25.95. *W.W. Norton*; £19.99

GRAHAM GREENE’S life was a gift to biographers. They—and the author himself—have amply chronicled his adventurous stints in exotic locations, his work as a secret agent, his love affairs and his Catholicism. Christopher Hull touches on all of these themes in his focused and entertaining account of the making of Greene’s novel of espionage, “Our Man in Havana”.

That book is set in Cuba, which Greene (pictured) first visited by accident in 1954, after he was deported from Puerto Rico. (He had unwisely revealed that, as a student prank, he was once a member of the Communist Party.) Greene disliked the authoritarian regime of Fulgencio Batista but enjoyed the climate and the seedy nightlife, returning frequently over the next dozen years.

Ever anti-American, Greene approved when Fidel Castro overthrew Batista,



His man in Havana

lar ethnicity. With time, he hopes, audiences may become less sensitive. Abel Asrat, a humorist and commentator, is more upbeat. “I see different ethnicities laughing at the same joke,” he says.

Leaders, too, may learn to take a joke, though this may take a while. At any rate, most people remain wary of mocking Abiy directly. Last year “Min Litazez?” was briefly suspended, reputedly for going too far.

Fiction and reality

Spies like us

Washington’s client, in 1959; he admired Castro’s social reforms but rued the puritanical clampdown on Havana’s fleshpots. Rather than merely witnessing the communist takeover, he tried to assist it, using his clandestine contacts to lobby against the supply of weapons to Batista and help furnish Castro with British buses.

These half-baked efforts were worthy of his own comic novels, of which “Our Man in Havana”—published just months before the revolution—may be the best loved. The protagonist is James Wormold, a vacuum-cleaner salesman recruited by the British secret service. Learning that the more information he provides the greater his remuneration, he invents a network of agents and increasingly farcical intelligence, to the delight of his minders in London. His masterstroke is a report of strange goings-on in the mountains, which he backs up with what are supposedly aerial photographs of sinister constructions. In reality they have been adapted from diagrams of vacuum cleaners.

In “Our Man Down in Havana” Mr Hull argues that, as well as drawing on his secret-service experience to describe the bumbling nature of much intelligence work, Greene was eerily prophetic about the Cuban missile crisis of 1962, which arose when reconnaissance flights proved that the Soviet Union was constructing missile sites on the island. He makes a game case, but some readers might conclude that coincidence is a more apt judgment than prescience. Mr Hull even sees Greene’s “clairvoyance” at work in the faulty evidence of weapons of mass destruction on which the invasion of Iraq was based in 2003.

It would be interesting to know what the novelist would make of that reverent appraisal. Still, Mr Hull’s book is a delicious companion to the tale Greene confected from the incompetence of spooks and an island in turmoil.

“Yeemama Bet” has begun to identify political leaders by name, though not too critically. “Back in the day it would be a suicide mission,” says Surafel, the director. Caustic Western-style satire, in which even a leader’s appearance is gag fodder, is still unthinkable. One day, perhaps. “I want to make jokes about Abiy and I want it to be aired on government tv,” says Eshetu. “That’s political comedy, right?” ■

New American fiction

You only live twice

The Volunteer. By Salvatore Scibona. Penguin Press; 432 pages; \$28. To be published in England by Jonathan Cape in July; £16.99

A TWO-MINUTE pause on a mountain road is long enough for an American unit to be blown up. As Vollie, short for Volunteer, realises, a convoy's orders could be distilled to one simple instruction: keep going, even if you get a flat tyre. This mantra shapes his life: "if it obstructs the road you push it off the cliff, don't matter if your mother's inside."

Vollie (a nickname from his childhood on a farm in Iowa) is one of three marines captured in the Cambodian jungle in Salvatore Scibona's second novel. Their presence beyond the Vietnamese border is illegal, so they do not qualify as prisoners-of-war. In "the tunnel", as the men call their subterranean prison, Vollie survives by eating his wounded comrades' food. After his release and recovery in Saigon, he requests a "hard clearing", meaning his records and identity are erased.

This intricate book spans decades and continents and incorporates multiple, looping stories. Returning to America, Vollie is dispatched to New York as a covert operative for an unnamed agency, with instructions to conduct surveillance on a supposed renegade Nazi. This assignment will haunt him. "The more excellent way is love," insists a woman whose death Vollie witnesses but feels powerless to prevent. "Any one person is a grounds for love if you pick him," his old friend Bobby tells him. "You have to pick him is the thing." At a commune in New Mexico, where he washes up after New York, Vollie falls for Louisa, Bobby's ex, and brings up her son, setting in train another of the book's tales.

A searing record of war and the lies people live by, "The Volunteer" is also a map of an alternative America, populated by men sleeping on the beds of trucks and women scrounging cigarettes and beer. Along the way Mr Scibona explores the process of forgetting, the longing to be singled out for love and the price of saying "no" when you want to say "yes". He is as adept at conjuring memorable images and sensations as in conveying his themes: a wind rolling off a bay and smelling of molasses, an empty mailbox filled only with sunlight.

Despite all the destruction and despair, in this novel hope emerges as the wildest high. "Who among us", Vollie asks, "has lived only once?" ■



Health care and technology

The AI will see you now

Artificial intelligence is coming to medicine—for good, ill or both

FOR ALL the technological wonders of modern medicine, from gene-editing to fetal surgery, health care—with its fax machines and clipboards—is often stubbornly antiquated. This outdated era is slowly drawing to a close as, belatedly, the industry catches up with the artificial-intelligence (AI) revolution. And none too soon, argues Eric Topol, a cardiologist and enthusiast for digital medicine.

Dr Topol's vision of medicine's future is optimistic. He thinks AI will be particularly useful for repetitive, error-prone tasks, such as sifting images, scrutinising heart traces for abnormalities or transcribing doctors' words into patient records. It will be able to harness masses of data to work out optimal treatments (for both conditions and individuals), and improve workflows in hospitals. In short, AI is set to save time, lives and money.

Much of this is hypothetical—but AI is already outperforming people in a variety of narrow jobs for which it has been trained. Eventually it may be able to diagnose and treat a wider range of diseases. Even then, Dr Topol thinks, humans would oversee the algorithms, rather than being replaced by them.

The fear the author harbours is that AI will be used to deepen the assembly-line culture of modern medicine. If it confers a "gift of time" on doctors, he argues that this bonus should be used to prolong consultations, rather than simply speeding through them more efficiently.

That is a fine idea, but as health swallows an ever-bigger share of national wealth, greater efficiency is exactly what is needed, at least so far as governments and

Deep Medicine: How Artificial Intelligence Can Make Healthcare Human Again. By Eric Topol. Basic Books; 400 pages; \$17.99

insurers are concerned. Otherwise, rich societies may fail to cope with the needs of ageing and growing populations. An extra five minutes spent chatting with a patient is costly as well as valuable. The AI revolution will also empower managerial bean-counters, who will increasingly be able to calibrate and appraise every aspect of treatment. The autonomy of the doctor will inevitably be undermined, especially, perhaps, in public-health systems which are duty-bound to trim inessential costs.

The Hippocratic Oath holds that there is an art to medicine as well as a science, and that "warmth, sympathy and understanding may outweigh the surgeon's knife or the chemist's drug". That is not just a platitude: the patients of sympathetic physicians have been shown to fare better. As Dr Topol says, it is hard to imagine that a robot could really replace a human doctor. Yet as demand for health care outstrips the supply of human carers, the future may involve consultations on smartphones and measurements monitored by chatbots. The considerably warmed stethoscope, placed gently on a patient's back, may become a relic of the past.

In the end technology may even be able to solve the empathy deficit. Japanese engineers are working on robots that simulate human presence, or *sonzai-kan*. A machine could never truly develop the shared humanity that helps patients heal. That doesn't mean it cannot be faked. ■

Public art

They could be heroes

PLYMOUTH

Britain is in the midst of a Victorian-style statue mania

SHE ARRIVED by road, in pieces, on two slow-loaders. She was welded together on a dock at Devonport naval base—the only nearby place that could accommodate her bulk. Then she was lifted onto a barge and pulled across Plymouth Sound. On March 22nd she was to be unveiled at her permanent home, in front of the Theatre Royal. She is a statue of an actress in a hooded top, rehearsing a part in “Othello”. At seven metres high, she is among the largest bronze sculptures in Britain.

Later this year Plymouth will get another bronze statue. It will be smaller in size, although the woman it commemorates was a towering historical figure—Nancy Astor, the first female MP to sit in the House of Commons. She will stand on a plinth in the Hoe, a spectacular lump of rock overlooking the harbour. The Hoe already has a Victorian statue of the explorer Francis Drake and several memorials to the men and women who died in Britain’s wars. But Astor’s effigy will be the first to be placed in that glorious location for three decades.

As American cities pull down statues, usually of Confederate leaders, British cities are quickly putting them up. The past seven months have seen new statues of Emily Wilding Davison, Emmeline Pankhurst (pictured) and Annie Kenney (all suffragettes); Rudyard Kipling, a poet and novelist; and a boy standing on a tree, representing the trauma of war. Two statues of Wilfred Owen, the war poet, have been erected in north-west England. Bronzes of the politician Margaret Thatcher and the comedian Victoria Wood will go up soon. “In the past two or three years we’ve been very busy,” says Chris Jones of Castle Fine Arts Foundry, which cast Plymouth’s giant actress and both of the Wilfred Owens.

The Victorians suffered from statue mania. They filled central London with them: “London’s Immortals”, a book published in 1989, estimated that a dozen were unveiled per decade in the second half of the 19th century, up from one per decade in the 18th century. Many memorials were built after the first world war. Then came a long slump. Although lots of sculptures went up in British towns after the second world war, they were often abstract (the artists Barbara Hepworth and Henry Moore were especially popular) or depicted animals. Many second-world-war memorials are simply first-world-war memorials with added names.

Although nobody is keeping a precise tally, the contemporary craze for bronze statues seems to at least equal the Victorian one numerically. It is also close to an artistic match. Today, as in the late 19th century, many of the new sculptures are detailed and realistic, depicting people in the clothes they actually wore. Hayley Gibbs, the artist chosen to create the statue of Astor, will portray the MP in her “Parliamentary uniform” of long skirt, jacket, wide-collared shirt and fabulous hat. A statue of the suffragist leader Millicent Fawcett, unveiled in London last year, faithfully reproduces one of her brooches and the crow’s feet around her eyes.

The bronze lady

Why is this old art form so in demand? One answer is that the British are rushing to redress an imbalance. “There’s an appetite for rectifying the lack of women,” observes Hazel Reeves, who created the statue of Pankhurst in Manchester. Ms Reeves has also been commissioned to make one of Mary Anning, a palaeontologist denied her



due by Victorian men, to go near her home in Dorset. Last year was the centenary of the 1918 Parliament Act, which gave some women the right to vote—hence all the statues of suffragettes and suffragists.

Yet neither the sex imbalance nor the anniversary of women’s suffrage quite explains the bronze mania. The lack of statues of women has been obvious for years: “London’s Immortals” complains bitterly about it. Julie Gottlieb, a historian at Sheffield University, notes that the 21st and 50th anniversaries of women’s suffrage were widely commemorated in speeches, academic seminars and postage stamps. No statues arose, however.

One reason for the rash of statues is that technology has made it easier to petition and raise money for them. The campaign for a statue of Astor in Plymouth was run largely by Alexis Bowater, a media consultant. She lobbied on Facebook, Instagram and Twitter and collected donations on Crowdfunder, an online platform. Caroline Criado-Perez, a feminist campaigner, created an online petition for a suffragette statue on her phone, while out running with her dog.

Technology can help the sculptors, too. The process of creating bronzes begins with a life-size model. Some artists, including Ms Gibbs and Ms Reeves, make those the traditional way, by creating a kind of metal stick figure which they wrap in wire and modelling clay. (This clay model is then turned into a wax image, from which a ceramic mould is made for the bronze.) But parts of the model for the statue of Fawcett were 3D printed. The sculptor of Plymouth’s giant actress sent digital files of the shape to a workshop hundreds of miles away. The workshop, Bakers Patterns, then instructed a machine to carve the model out of foam.

Another explanation for the boom has to do with where the statues are going up. Erecting one near the Houses of Parliament or Buckingham Palace—the most prestigious locations in England—has become almost impossible. Westminster council has declared those places to be “monument saturation zones” in which proposed statues are rejected by default. Last year it decided that there was not even room for a likeness of Thatcher.

With space scarce in central London, statues are being pushed out to smaller cities and towns. Local politicians and officials, whose budgets have not recovered from the financial crisis, seize on them as an economical way of (they hope) attracting attention and tourists. “It sends a powerful message for not a lot of money,” reckons Mr Jones. Thatcher’s statue, rejected by Westminster, will go up in Grantham, the town where she was born. Victorian Britons built monuments to national heroes. Today all heroes are local. ■

Research that matters

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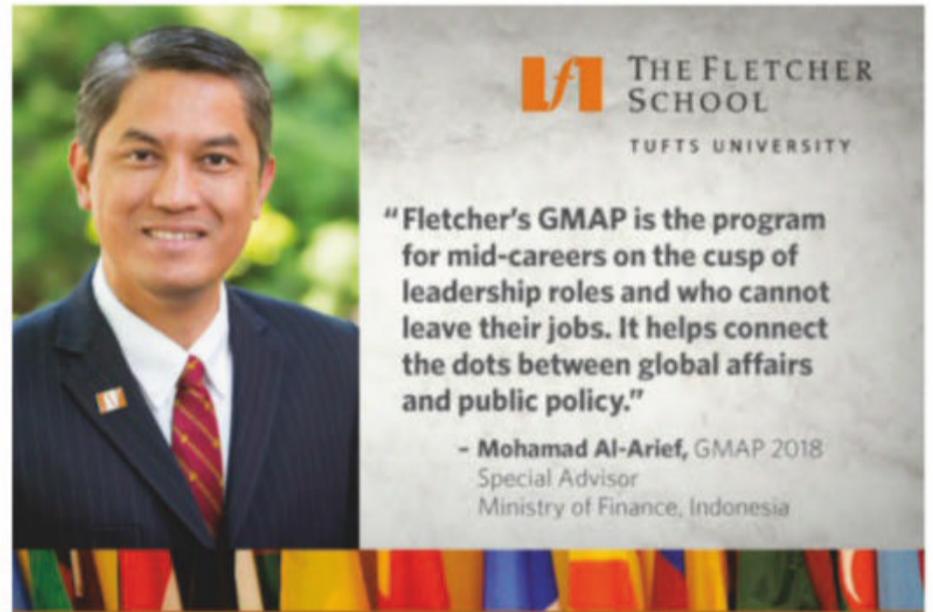
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Economic data

	Gross domestic product			Consumer prices		Unemployment rate		Current-account balance		Budget balance		Interest rates		Currency units				
	% change on year ago			% change on year ago		%		% of GDP, 2018†		% of GDP, 2018†		10-yr gov't bonds	change on	per \$	% change			
	latest	quarter*	2018†	latest	2018†							latest,%	year ago, bp	Mar 20th	on year ago			
United States	3.1	Q4	2.6	2.9	1.5	Feb	2.4	3.8	Feb	-2.4		-3.8		2.6	-25.0	-		
China	6.4	Q4	6.1	6.6	1.5	Feb	1.9	3.8	Q4§	0.3		-4.0		3.0	§§	-65.0	6.70	-5.5
Japan	0.3	Q4	1.9	0.7	0.2	Jan	1.0	2.5	Jan	3.5		-3.2		nil		-6.0	111	-4.5
Britain	1.3	Q4	0.7	1.4	1.9	Feb	2.3	3.9	Dec††	-4.2		-1.3		1.2		-27.0	0.76	-6.6
Canada	1.6	Q4	0.4	1.8	1.4	Jan	2.2	5.8	Feb	-2.9		-1.2		1.7		-54.0	1.33	-1.5
Euro area	1.1	Q4	0.9	1.9	1.5	Feb	1.7	7.8	Jan	3.5		-0.7		0.1		-50.0	0.88	-8.0
Austria	2.4	Q4	5.1	2.7	1.5	Feb	2.1	4.8	Jan	2.2		-0.2		0.4		-41.0	0.88	-8.0
Belgium	1.2	Q4	1.4	1.4	2.2	Feb	2.3	5.6	Jan	0.4		-1.0		0.5		-35.0	0.88	-8.0
France	0.9	Q4	1.0	1.5	1.3	Feb	2.1	8.8	Jan	-0.8		-2.6		0.5		-38.0	0.88	-8.0
Germany	0.6	Q4	0.1	1.5	1.5	Feb	1.9	3.2	Jan‡	7.6		1.8		0.1		-50.0	0.88	-8.0
Greece	1.6	Q4	-0.4	2.1	0.6	Feb	0.6	18.0	Dec	-2.9		-0.1		3.8		-39.0	0.88	-8.0
Italy	nil	Q4	-0.4	0.8	1.0	Feb	1.2	10.5	Jan	2.6		-1.9		2.5		63.0	0.88	-8.0
Netherlands	2.0	Q4	1.8	2.5	2.6	Feb	1.6	4.5	Jan	10.3		1.4		0.2		-42.0	0.88	-8.0
Spain	2.4	Q4	2.8	2.5	1.1	Feb	1.7	14.1	Jan	0.9		-2.7		1.1		-24.0	0.88	-8.0
Czech Republic	3.2	Q4	3.8	2.9	2.7	Feb	2.2	2.2	Jan‡	0.6		1.2		1.9		-2.0	22.6	-8.3
Denmark	2.1	Q4	2.9	1.1	1.1	Feb	0.8	3.7	Jan	6.1		-0.4		0.2		-48.0	6.57	-7.6
Norway	1.7	Q4	1.9	1.7	3.0	Feb	2.8	3.7	Dec††	8.5		7.0		1.7		-30.0	8.54	-9.5
Poland	4.5	Q4	2.0	5.4	1.2	Feb	1.7	6.1	Feb§	-0.7		-0.9		2.9		-42.0	3.77	-8.5
Russia	1.5	Q3	na	2.3	5.2	Feb	2.9	4.9	Feb§	6.6		2.7		8.3		110	64.3	-10.7
Sweden	2.4	Q4	4.7	2.2	1.9	Feb	2.0	6.6	Feb§	2.0		0.8		0.3		-41.0	9.18	-10.6
Switzerland	1.4	Q4	0.7	2.5	0.6	Feb	0.9	2.4	Feb	10.6		0.9		-0.3		-38.0	1.00	-5.0
Turkey	-3.0	Q4	na	3.1	19.7	Feb	16.3	13.5	Dec§	-3.6		-1.9		16.1		342	5.47	-28.1
Australia	2.3	Q4	0.7	3.0	1.8	Q4	1.9	4.9	Feb	-2.4		-0.3		1.9		-76.0	1.41	-7.8
Hong Kong	1.3	Q4	-1.4	3.0	2.5	Jan	2.4	2.8	Feb‡‡	2.9		1.9		1.7		-25.0	7.85	-0.1
India	6.6	Q4	5.1	7.3	2.6	Feb	3.9	7.2	Feb	-2.8		-3.6		7.5		-10.0	68.8	-5.3
Indonesia	5.2	Q4	na	5.2	2.6	Feb	3.2	5.3	Q3§	-3.0		-1.9		7.7		96.0	14,185	-3.1
Malaysia	4.7	Q4	na	4.7	-0.7	Jan	1.0	3.3	Jan§	2.2		-3.7		3.9		-11.0	4.07	-3.7
Pakistan	5.4	2018**	na	5.4	8.2	Feb	5.1	5.8	2018	-5.8		-5.4		13.1	†††	432	139	-19.1
Philippines	6.1	Q4	6.6	6.2	3.8	Feb	5.3	5.2	Q1§	-2.8		-2.8		6.1		7.0	52.8	-1.4
Singapore	1.9	Q4	1.4	3.2	0.4	Jan	0.4	2.2	Q4	17.7		0.4		2.1		-29.0	1.35	-2.2
South Korea	3.2	Q4	3.9	2.7	0.5	Feb	1.5	4.7	Feb§	4.9		1.1		2.0		-75.0	1,130	-5.5
Taiwan	1.8	Q4	1.5	2.6	0.2	Feb	1.4	3.7	Jan	12.7		-0.6		0.8		-21.0	30.8	-5.3
Thailand	3.7	Q4	3.3	4.1	0.7	Feb	1.1	1.0	Jan§	7.4		-3.0		2.2		-29.0	31.7	-1.8
Argentina	-3.5	Q3	-2.7	-2.0	50.7	Feb	34.3	9.0	Q3§	-6.0		-5.7		11.3		562	41.0	-50.7
Brazil	1.1	Q4	0.5	1.2	3.9	Feb	3.7	12.0	Jan§	-0.8		-7.0		6.9		-132	3.79	-12.9
Chile	3.6	Q4	5.3	4.0	1.7	Feb	2.4	6.8	Jan§††	-2.5		-2.0		4.0		-42.0	666	-8.4
Colombia	2.9	Q4	2.4	2.6	3.0	Feb	3.2	12.8	Jan§	-3.2		-2.2		6.4		-9.0	3,089	-7.3
Mexico	1.7	Q4	1.0	2.0	3.9	Feb	4.9	3.5	Jan	-1.7		-2.0		8.1		51.0	18.9	-0.8
Peru	4.8	Q4	11.4	4.0	2.0	Feb	1.3	8.0	Jan§	-1.5		-2.5		5.6		64.0	3.29	-0.6
Egypt	5.5	Q4	na	5.3	14.3	Feb	14.4	8.9	Q4§	-1.8		-9.5		na		nil	17.3	2.1
Israel	2.8	Q4	3.0	3.3	1.2	Feb	0.8	4.3	Jan	1.8		-3.0		2.0		23.0	3.61	-3.6
Saudi Arabia	2.2	2018	na	1.5	-2.2	Feb	2.5	6.0	Q3	9.6		-5.0		na		nil	3.75	nil
South Africa	1.1	Q4	1.4	0.8	3.9	Jan	4.5	27.1	Q4§	-3.5		-4.3		8.8		66.0	14.4	-16.8

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

Markets

In local currency	Index	% change on:	
		Mar 20th	one week
United States S&P 500	2,824.2	0.5	12.7
United States NAScomp	7,729.0	1.1	16.5
China Shanghai Comp	3,090.6	2.1	23.9
China Shenzhen Comp	1,684.6	1.7	32.9
Japan Nikkei 225	21,608.9	1.5	8.0
Japan Topix	1,614.4	1.4	8.1
Britain FTSE 100	7,291.0	1.8	8.4
Canada S&P TSX	16,167.6	0.1	12.9
Euro area EURO STOXX 50	3,372.4	1.5	12.4
France CAC 40	5,382.7	1.4	13.8
Germany DAX*	11,603.9	0.3	9.9
Italy FTSE/MIB	21,330.2	2.8	16.4
Netherlands AEX	547.4	1.5	12.2
Spain IBEX 35	9,405.6	2.3	10.1
Poland WIG	60,788.4	1.5	5.4
Russia RTS, \$ terms	1,226.3	3.1	15.0
Switzerland SMI	9,463.3	0.8	12.3
Turkey BIST	103,310.2	1.1	13.2
Australia All Ord.	6,251.8	0.1	9.5
Hong Kong Hang Seng	29,321.0	1.8	13.4
India BSE	38,386.8	1.7	6.4
Indonesia IDX	6,482.7	1.6	4.7
Malaysia KLSE	1,684.2	0.4	-0.4

	index	% change on:	
		Mar 20th	one week
Pakistan KSE	38,547.8	-1.0	4.0
Singapore STI	3,207.7	0.4	4.5
South Korea KOSPI	2,177.1	1.3	6.7
Taiwan TWI	10,551.6	1.7	8.5
Thailand SET	1,627.6	-0.7	4.1
Argentina MERV	34,743.9	2.1	14.7
Brazil BVSP	98,041.3	-0.9	11.6
Mexico IPC	43,156.2	2.9	3.6
Egypt EGX 30	14,724.4	-2.7	13.0
Israel TA-125	1,419.1	-0.3	6.4
Saudi Arabia Tadawul	8,640.5	1.3	10.4
South Africa JSE AS	56,145.7	0.6	6.5
World, dev'd MSCI	2,112.0	0.8	12.1
Emerging markets MSCI	1,068.5	1.7	10.6

US corporate bonds, spread over Treasuries

	Basis points	
	latest	Dec 31st 2018
Investment grade	168	190
High-yield	465	571

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

Commodities

The Economist commodity-price index

2005=100	Mar 12th		Mar 19th*		% change on	
	Mar 12th	Mar 19th*	month	year		
Dollar Index						
All Items	138.1	138.4	-0.4	-7.7		
Food	141.0	140.4	-3.7	-10.2		
Industrials						
All	135.1	136.4	3.2	-4.8		
Non-food agriculturals	124.8	125.5	1.4	-9.6		
Metals	139.5	141.1	4.0	-2.9		
Sterling Index						
All items	191.8	189.8	-2.2	-2.5		
Euro Index						
All items	152.3	151.7	-0.5	-0.2		
Gold						
\$ per oz	1,297.4	1,307.3	-2.3	-0.4		
West Texas Intermediate						
\$ per barrel	56.9	59.0	5.2	-7.1		

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

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

Self-reported happiness tends to be higher in richer countries, but does not always rise when economies grow

GDP per person v self-reported happiness
85 countries with adult population over 5m

2005-08 average — 2015-18 average

Population, m
5-25 25-100 100-500 500+

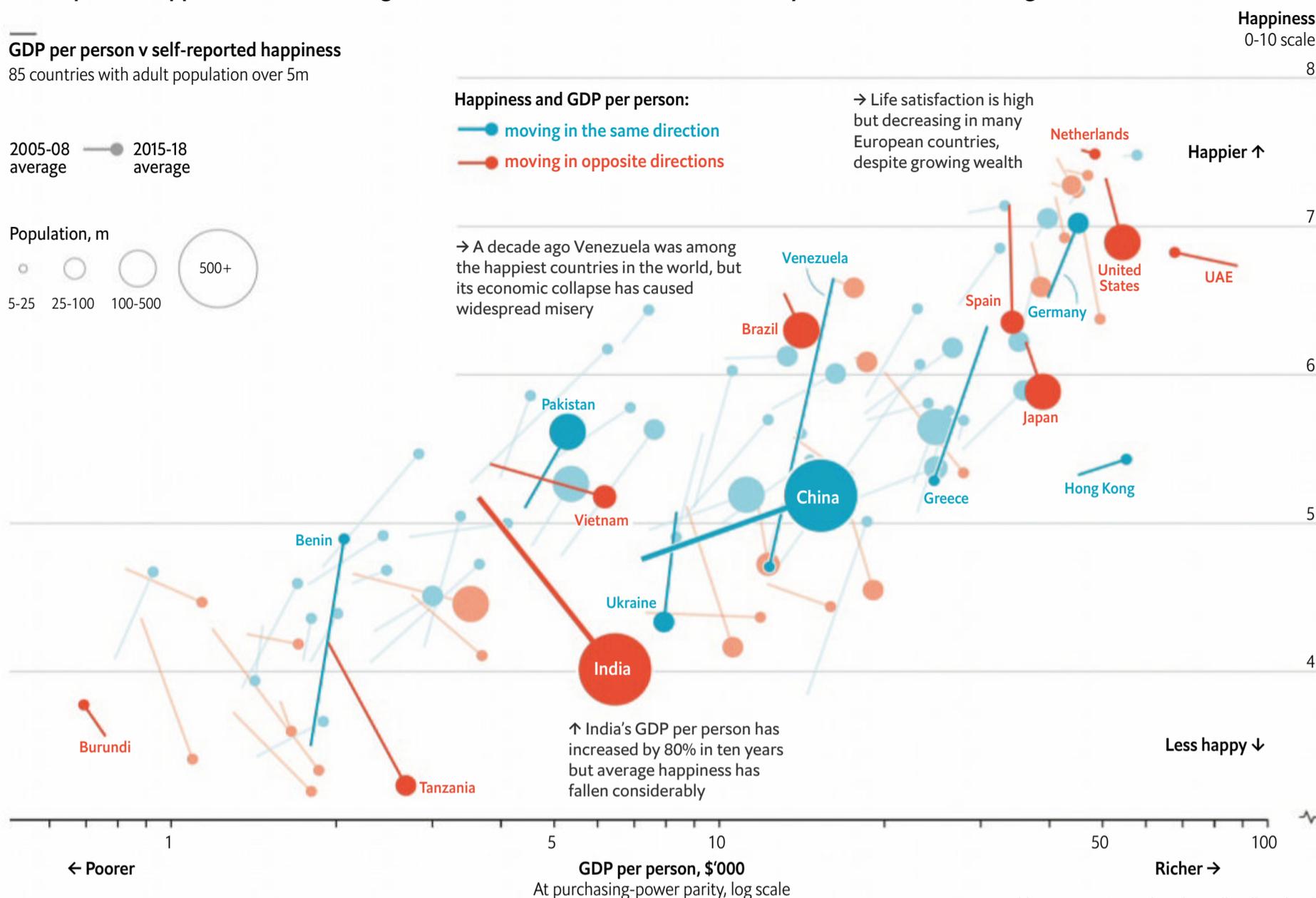
Happiness and GDP per person:

—●— moving in the same direction
—●— moving in opposite directions

→ Life satisfaction is high but decreasing in many European countries, despite growing wealth

→ A decade ago Venezuela was among the happiest countries in the world, but its economic collapse has caused widespread misery

↑ India's GDP per person has increased by 80% in ten years but average happiness has fallen considerably



Sources: *World Happiness Report*, by John Helliwell, Richard Layard & Jeffrey Sachs (eds), UN, 2019; World Bank

Dismal science

An old paradox about growth and happiness lives on

PHILOSOPHERS FROM Aristotle to the Beatles have argued that money does not buy happiness. But it seems to help. Since 2005 Gallup, a pollster, has asked a representative sample of adults from countries across the world to rate their life satisfaction on a scale from zero to ten. The headline result is clear: the richer the country, on average, the higher the level of self-reported happiness. The simple correlation suggests that doubling GDP per person lifts life satisfaction by about 0.7 points.

Yet the prediction that as a country gets richer its mood will improve has a dubious record. In 1974 Richard Easterlin, an economist, discovered that average life satisfaction in America had stagnated between 1946 and 1970 even as GDP per person had grown by 65% over the same period. He went on to find a similar disconnect in oth-

er places, too. Although income is correlated with happiness when looking across countries—and although economic downturns are reliable sources of temporary misery—long-term GDP growth does not seem to be enough to turn the average frown upside-down.

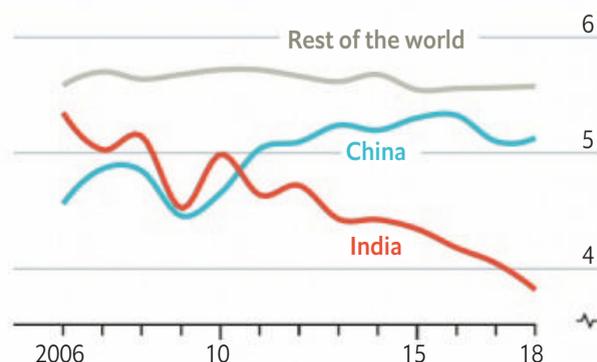
The “Easterlin paradox” has been hotly disputed since, with some economists claiming to find a link between growth and rising happiness by using better quality data. On March 20th the latest Gallup data were presented in the *World Happiness Report*, an annual UN-backed study. The new data provide some ammunition for both sides of the debate but, on the whole, sug-

gest that the paradox is alive and well.

There are important examples of national income and happiness rising and falling together. The most significant—in terms of population—is China, where GDP per person has doubled over a decade, while average happiness has risen by 0.43 points. Among rich countries Germany enjoys higher incomes and greater cheer than ten years ago. Venezuela, once the fifth-happiest country in the world, has become miserable as its economy has collapsed. Looking across countries, growth is correlated with rising happiness.

Yet that correlation is very weak. Of the 125 countries for which good data exist, 43 have seen GDP per person and happiness move in opposite directions. Like China, India is a populous developing economy that is growing quickly. But happiness is down by about 1.2 points in the past decade. America, the subject of Easterlin’s initial study, has again seen happiness fall as the economy has grown. In total the world’s population looks roughly equally divided between places where happiness and incomes have moved in the same direction over the past ten years, and places where they have diverged. ■

Average happiness score, 10=highest





Darting, seizing, winning

Atta Elayyan, software developer and futsal goalie, died in the Christchurch shootings on March 15th, aged 33

THE ONLY part of Atta Elayyan's life that was lazy was his habit of starting the day when he felt like it. He was not a morning person. Once out of bed, though, he was unstoppable. He would fire up Trello to go through his to-do list, then dive into his emails to follow up conversations with clients, potential clients, partners and anyone else connected with his software-development company, Lazy Worm Applications, and its IT services arm, LWA Solutions. All that took care of the morning. The afternoon was filled with meetings over coffee to discuss how projects were going, then meetings to urge on the design and development teams. At night he had to check on deliveries and sales, before starting the protracted round of emails and conference calls with customers who, a long way from New Zealand time, were just waking up.

Somewhere in there was dinner with the family, his wife Farah and two-year-old daughter Aya, who had a bib reading "My Dad rocks!" His more demanding baby, though, was Lazy Worm Apps, which since 2010 he and a classmate from Canterbury University, Mike Choeung, just two guys, one tall, one short, had built into a star turn on the Christchurch tech scene. Now there was a 14-man team, and they had moved into digs in Print Place with so much space that it gave him ideas immediately of how much bigger they could get. As it was they took on university interns every summer, and he often put out Twitter appeals for more.

Everything had taken off when Mike got a Microsoft Windows Phone 7 and he fell in love with it, especially the colourful Live Tiles that linked at a touch to apps, functions and features, could be dragged around and added to, and updated in real time. He decided he too would specialise in Windows Phone apps and make user interfaces that delighted people, a word he used a lot. Within a few years Lazy Worm, with no outside investment, provided some of the most popular apps on the Windows Store and was nearly acquired by Google. He was truly stoked to think of that.

Individual users were in his mind, too, when companies came to him for smart solutions. He liked to work alongside their employees for a while, so that he could tailor an app exactly to their routines. In 2016 he went for a week to Jordan on a contract for Aramex, the biggest transport and logistics company in the Middle East, and had a blast driving one of their red vans round Amman to find out what sort of software the company's couriers needed. The answer was to turn their low-end phones into really accurate scanners, so that all their tasks—scanning the package, calling the customer, getting directions—were in one app and one click. There you had it: delight and empowerment at the same time.

Microsoft had helped him win that contract, and his link stayed close, so close that using the rival Apple iPhone seemed like going back to the dark side. Month by month Microsoft's latest devices turned up free in the office, new toys for the team to tinker with. So when he got deep into his latest passion, augmented, mixed and virtual reality, a HoloLens headset was right there waiting for him. He posed like a fighter in that awesome piece of tech. VR was at the core of Lazy Worm's highly successful training app for pilots at the Port of Auckland, which simulated the hazardous process of climbing up a high rope ladder onto moving container ships.

To succeed at VR he had to recruit 3D modellers and animators, but that world was second nature to him. For a few years after taking his computer-science degree he had been a professional gamer, tag Cr@zyArab, joining the New Zealand e-sports team NewType to win several tournaments of "Counter-Strike: Source", which pitched soldiers against terrorists. They would play for six or seven hours a night. He posted the best moments on YouTube, including the one where, darting through the streets of some Arab town, he took on Top Gun (who was looking the wrong way) and destroyed him with a terrific burst of semi-automatic fire.

Nimble warding off opponents was quite a feature of his life. Somehow he fitted in another career as a goalie in the game of futsal, indoor football, and was so good that, as well as playing for Canterbury United Dragons and coaching at his old school, Christchurch Boys' High, he was picked for the Whites, the national squad. Though he held citizenships from elsewhere—Kuwaiti from his birthplace, Palestinian from his father—and though he had spent his childhood in Oregon, he was proud to wear the silver fern on his shirt. He was not just the tallest in the team, with the best beard, but the only guy in elbow pads, knee pads, gloves and long trousers, prepared to leap, twist and dive to the solid floor to keep the opponents' ball out of the net. Even at play, he couldn't rest those lightning reflexes. If he once touched the ball, he had four seconds to pass it; no room to fail.

The tech world, too, moved at such breakneck speed that he had to be aware of every opportunity, hungry, ready to grab. He watched colleagues leap on to Android and ios before he could, when he was still moonlighting with Mike to try to get the company started. He tried many avenues that didn't work, and wasn't that surprised by the eventual demise of Windows Phones; he'd picked the underdog precisely because others hadn't. Usually he kept the failures quick, and bought the team dinner whenever they had success. All through he kept up the punishing, exciting schedule of emails, meetings, project management, conference calls, coffee and more coffee. The only long regular break he took in the week was to go to Friday prayers. "On the Day of Assembly, hasten earnestly to the Remembrance of Allah, and leave off business. That is best for you, if ye but knew!" was the injunction in the Koran.

The Al-Noor mosque next to Hagley Park was special to him for family reasons. His father, Mohammed, had co-founded it only a year after coming to New Zealand from America. In Corvallis, in Oregon, he had founded another, to help the Muslim community take root there. His mother had offered Arabic lessons. It seemed a family trait to want to grow things fast, as Atta wanted to grow his company and the high-school futsal team. He was an impatient guy, but he was still young. There was time. ■



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