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SEPTEMBER 28TH–OCTOBER 4TH 2019

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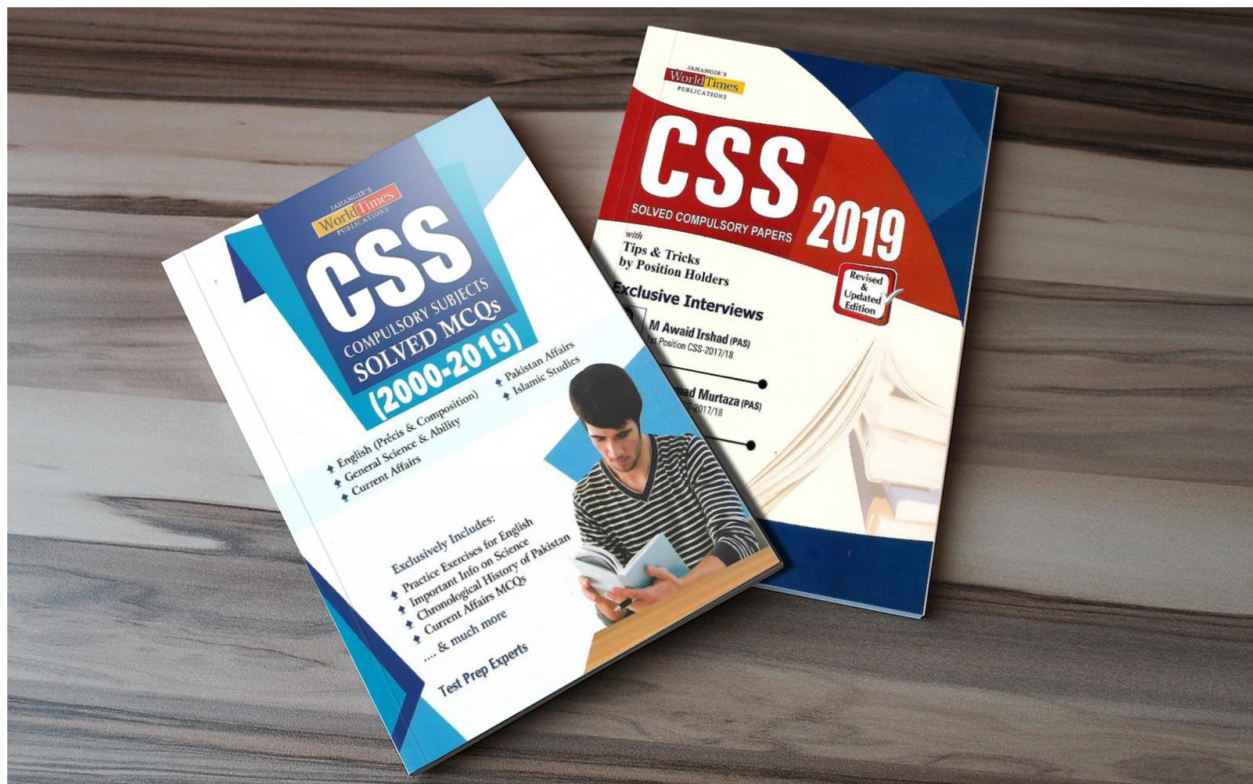


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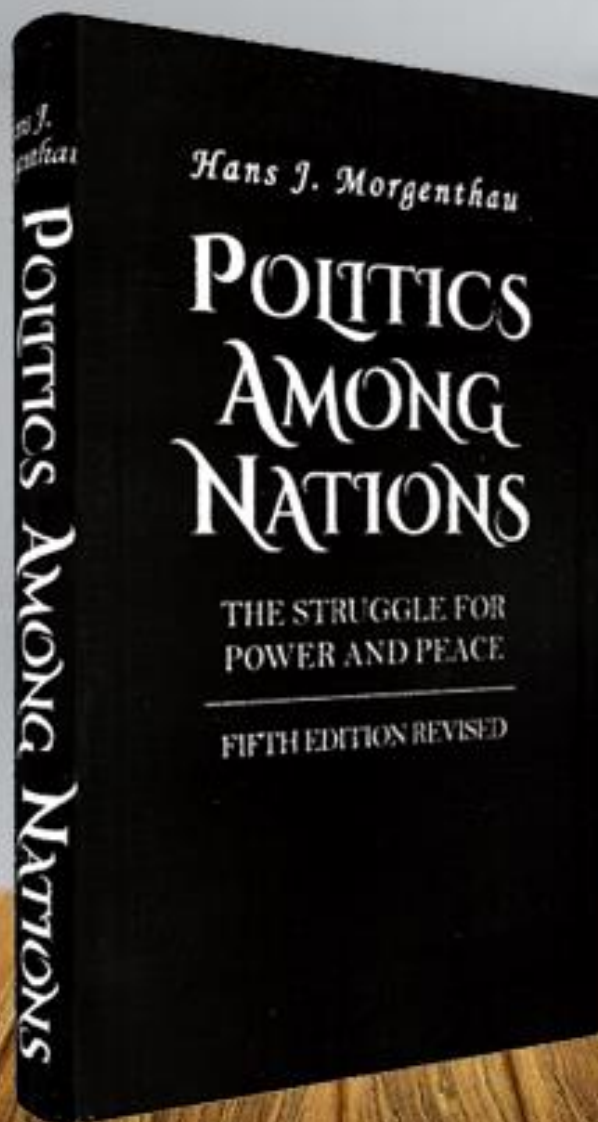
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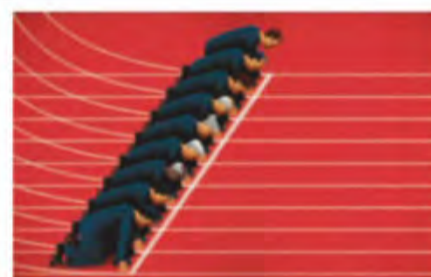
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The Economist

Volume 432 Number 9162

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

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

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**Donald Trump** asked the Ukrainian president, Volodymyr Zelensky, to “do us a favour” and investigate the business dealings of Joe Biden’s son in Ukraine, according to the rough transcript of a phone conversation they had in July. The White House released the transcript after it emerged that Mr Trump’s attempt to lean on a foreign power to discredit the front-runner among Democratic presidential candidates had formed the basis of a whistle-blower’s complaint to the intelligence services. After months of warning her party

about the unintended consequences of trying to impeach Mr Trump, Nancy Pelosi, the Democratic Speaker, announced that the House would start an impeachment inquiry.

The Intergovernmental Panel on Climate Change reported that the **world’s oceans** and frozen regions have been “taking the heat” from climate change, and that the “consequences for nature and humanity are sweeping and severe”. Meanwhile, roads were closed on the Italian side of Mont Blanc as experts warned that part of a glacier could collapse.

**Back to the drawing board**  
**Britain’s** Supreme Court ruled unanimously that Boris Johnson, the prime minister, acted unlawfully when he advised the queen to prorogue Parliament. The court concluded that suspending Parliament would have limited “without

reasonable justification” MPs’ ability to hold the government to account. Mr Johnson faced calls to resign from other party leaders. He said that only a general election could provide a way out of the Brexit fog.

Interior ministers from five EU countries, including France, Germany and Italy, agreed to a temporary arrangement for sharing out **migrants** rescued in the Mediterranean. The governments are pushing for a wider deal involving more EU countries, but that will be much harder to achieve.

#### **Braving the streets**

Hundreds of **Egyptians** in Cairo and other cities protested against the government. They were motivated, in part, by videos posted online by Muhammad Ali, a disgruntled businessman and former actor, who accuses the government of corruption. (Mr Ali lives in self-imposed exile in Spain.)

The authorities arrested hundreds of people, hoping to prevent more unrest.

A week after a parliamentary election in **Israel** produced no clear winner, Binyamin Netanyahu, the prime minister, was given the first shot at forming a government. He has been talking to Benny Gantz, his main rival, about forming a national-unity government.

Britain, France and Germany joined America in blaming **Iran** for attacks on Saudi oil facilities. Meanwhile, Iran lifted a detention order on a British-flagged oil tanker held since July. But an ongoing investigation of “some of its violations” prevented the ship from leaving Iran.

Zine el-Abidine Ben Ali, a former president of **Tunisia**, died. Ben Ali led Tunisia for 23 years, keeping the country stable. But he was criticised for his oppression and corruption. ▶▶

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► Big protests in 2011 finally forced him from office. The event sparked similar uprisings across the Arab world.

Africa's continental free trade agreement caused trouble between **Nigeria** and **Benin** just months after both countries signed up to it. Nigeria has partially closed its border with its small neighbour to curb the smuggling of rice.

An opposition politician in **Rwanda** was stabbed to death in what his party says is the latest in a series of attacks on its members.

The World Health Organisation accused health authorities in **Tanzania** of withholding information about suspected cases of Ebola. The WHO said it had received unofficial reports that one person who tested positive for the virus had died, but that Tanzanian officials had insisted that there were no cases in the country.

**Best friends forever**



Nicolás Maduro, **Venezuela's** socialist president, visited Moscow for talks with Vladimir Putin. **Russia** is the biggest backer of Mr Maduro's government, which has crippled the economy. America called for tougher sanctions on the Maduro regime and more help for the people who have fled the country, expected to top 5m by the end of the year.

In **Brazil** charges were laid against employees of Vale, a mining company, and staff at a German safety-inspection firm

for the collapse of a dam in the state of Minas Gerais in January, which killed at least 248 people. Police claim the employees knew the dam would burst but concealed the danger.

**Migrants get the blame**

Violent protests against perceived government racism and repression continued in the **Indonesian** part of New Guinea. Police said that 32 people had been killed across Papua, as the region is known, most of them migrants from other parts of Indonesia. Elsewhere in Indonesia, students protested against the watering down of anti-corruption laws and proposed changes that would outlaw extramarital sex.

**India's** government said it would cut corporate tax rates by ten percentage points in a bid to boost business confidence and revive the economy. The country's main stockmarket soared on the news.

**Kiribati**, a thinly populated archipelago in the Pacific, became the second country in a week to switch diplomatic allegiance from **Taiwan** to China. The move leaves Taiwan with formal diplomatic relations with just 15 countries.

Anti-government protests continued in several districts of **Hong Kong**. Participants threw petrol bombs and set fires. Police responded with tear gas and rubber bullets. Some of the demonstrators targeted businesses perceived as sympathetic to the Chinese government, covering their premises with slogans.

**China's** president, Xi Jinping, opened a colossal new airport, Beijing Daxing International, about 45km south of the capital. The project cost 80bn yuan (\$11bn) and took five years to complete. It has four runways and is expected to handle 45m passengers a year by 2021.

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Adam Neumann quit as chief executive of **WeWork**, the office-rental startup that he helped found. He had been blamed by investors for the postponement of WeWork's IPO, which was shelved after a sharp drop in its expected value. Mr Neumann is staying on as chairman, but is reportedly ceding control of WeWork by curtailing his shareholder voting power.

#### About to be stubbed out?

Juul replaced its chief executive, as concerns mount about the health risks of **e-cigarettes**. The firm's new boss comes from Altria, a tobacco company with a 35% stake in Juul. Health officials have identified hundreds of cases of lung illness related to vaping. Walmart decided to stop selling e-cigarettes because of the "regulatory complexity and uncertainty". Massachusetts banned the sale of all vaping products for four months.

With the market for e-cigarettes facing a cloudy future, **Philip Morris International** and **Altria** ended their attempt to merge, reportedly in part because of the risk from Altria's exposure to Juul.

German prosecutors charged **Volkswagen's** chief executive, Herbert Diess, and chairman, Hans Dieter Pötsch, with failing to tell investors in the summer of 2015 that the carmaker was being investigated for cheating emissions tests. When news broke of the scandal in September that year VW's share price plunged. Martin Winterkorn, the company's CEO at the time, was also charged (he is also facing separate indictments of fraud). All three deny the charges.

**Nissan** and **Carlos Ghosn** settled with America's Securities and Exchange Commission for filing fraudulent financial forms relating to his retirement package. Mr Ghosn was sacked by the Japanese carmaker as chairman last November for various alleged

misdeeds and awaits trial in Tokyo. Both he and Nissan neither admitted nor denied wrongdoing.

Once described as a "Tesla killer", **NIO** shed a quarter of its stockmarket value after reporting a big quarterly loss and drop in sales. The Chinese maker of electric vehicles has been hurt by a recall related to battery problems and the phasing-out of Chinese subsidies for green-energy cars.

**Kristalina Georgieva** was confirmed as the new managing director of the IMF. Ms Georgieva, a Bulgarian, is the first person from a developing economy to hold the job. In a speech she said the world must prepare for a downturn.

The EU's second-highest court struck down the European Commission's finding in 2015 that **Starbucks** had benefited from illegal tax breaks in the Netherlands.

**Anheuser-Busch InBev** priced the shares being sold in the forthcoming IPO of its Asian business at the bottom end of an indicative range it had set. The brewer has already sold some of the assets in the business, but the scaled-down flotation in Hong Kong should

still raise at least \$5bn, which would make it the world's second-largest IPO this year, after Uber.

**Royal Bank of Scotland** appointed Alison Rose as chief executive, succeeding Ross McEwan, who has held the job for six years. Ms Rose takes over at a challenging time for RBS. The bank is still majority-owned by the taxpayer, 11 years after a bail-out. The government's plan to return it to full private ownership by 2024 is less certain given RBS's recent warning that Brexit could affect its profit.



The collapse of **Thomas Cook** led to the largest ever peacetime repatriation in Britain, as the government chartered planes to return 150,000 stranded tourists. The holiday firm requested a state bail-out, which was rejected amid reports that executives were still

rewarding themselves hefty pay packages. **Condor**, a German airline and subsidiary of Thomas Cook, had better luck, securing a bridging loan backed by the German government to keep it flying.

**Facebook** acquired **CTRL-Labs**, a startup that is developing a technology to enable people to manage computers with their brains. It has designed a wristband that captures signals sent from the brain to the hand and transmits them to a computer. The head of Facebook's virtual-reality business said this allows someone to share a digital photo "just by...intending to".

#### A lot of spin

**Peloton** launched its IPO on the NASDAQ stockmarket, pricing its shares at the higher end of expectations. It describes itself as "an innovation company transforming the lives of people around the world through our ever-evolving fitness platform". Translated, that means selling internet-connected bikes for \$2,245 and subscriptions to workout plans. A sensation with svelte hipster-types, its finances are a bit flabby; it lost \$196m in its latest financial year. Peloton will have to up the pace as it becomes a public company.



# Uncovering tomorrow's innovation hotspots

The leadership of innovation hubs like Silicon Valley, London and New York is being challenged by five rising cities. Why these cities—Beijing, Los Angeles, Paris, Tel Aviv and Toronto—are succeeding is the subject of new research commissioned by Pictet from The Economist Intelligence Unit.

Research found that the growth of tech firms in **Paris** is being stoked by the French government's determination to attract global tech talent—to the extent that visa criteria are designed to fill specific skill gaps in the tech ecosystem.

“ When you open your borders, you attract talent from abroad and stimulate innovation. If you attract the best brains, you will increase the likelihood of becoming a global leader.

Christophe Donay,  
Head of macro research and asset allocation  
at Pictet Wealth Management

**Toronto** boasts a supportive innovation ecosystem, including accelerator programmes focused on turning groundbreaking science into real businesses—and a job rate in the technology sector growing at twice that of the San Francisco Bay Area.

“ What stands out here is the focus on commercialising science and research, alongside purely consumer-driven tech.

Saara Punjani,  
CEO of Structura Biotechnology

Talent concentration in **Tel Aviv** along with its shared sense of history and community underpin its leadership in bioscience and manufacturing technologies.

“ Israel's tech ecosystem is characterised by a 'can-do' attitude, and perhaps the most important differentiating factor is how the Israeli ecosystem embraces failure.... The effect of this is that people are more inclined to take risks and experiment.

Amos Meiri,  
Co-founder and CEO of Colu

**Los Angeles'** deep-rooted creative industries made it the natural epicentre of innovation in augmented and virtual reality (VR), even where VR is deployed outside the entertainment sector, such as in healthcare.

“ I do not believe there is a better city in the world to develop VR content at present than Los Angeles.... The talent pool of highly skilled gaming professionals in Southern California is by far our greatest asset and resource.

Seth Gerson, CEO of Survios

**Beijing** is forging ahead as a global leader in AI and robotics. As the political centre of China, it is reaping the benefits of the government's support for a technology-driven university ecosystem.

“ The first wave of digital entrepreneurs, like Sohu and Sina, followed by Baidu, came from [Beijing]. The city is also the political centre of China and where you have political power, that is where the economic resources are.

Dong Chen,  
Senior Asia economist at Pictet Wealth Management

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# The reckoning

**On September 24th, the day they met in New York, the British prime minister and the American president, two exponents of the new populism, both fell foul of their country's institutions. First Boris Johnson**

**N**O BRITISH INSTITUTION is any longer immune to the Brexit virus. On September 24th the Supreme Court ruled that the queen herself had been led to act unlawfully when her prime minister, Boris Johnson, advised her to suspend Parliament in the run-up to Britain's departure from the European Union (see Britain section). Unanimous, the judges ruled that the government had not provided "any reason—let alone a good reason" for this intrusion on "the fundamentals of democracy". The very next day MPs returned to work triumphant.

This was the worst week in Mr Johnson's extraordinarily bad two months in office. The unelected prime minister has lost every vote he has faced, squandered his majority and fired a score of MPs from his Conservative Party. Following the court's ruling, he was dragged back from a UN summit in New York to face the music in Westminster, where MPs now have ample time to grill him not only about his fraying Brexit plans but also on allegations of corruption during his stint as mayor of London.

Mr Johnson is an unworthy occupant of 10 Downing Street. And yet the man who would replace him, Labour's Jeremy Corbyn, is hardly more appealing. At its conference this week Labour set out a platform of wildly far-left policies, including the expropriation of a tenth of the equity of every large company, a big round of nationalisation, the seizure of private schools' assets and a four-day working week. The extreme nature of the programme was matched only by the extreme viciousness of the infighting, and the extreme incompetence with which plots were hatched and backs were stabbed.

It may seem like an awful twist of fate that at such a crucial time Britain has both the worst prime minister and worst leader of the opposition in living memory. But it is no coincidence.

Both men, wholly inadequate to their roles, are in place only because Brexit has upended the normal rules of politics. This turbulent week has shown more clearly than ever that, until Britain's relationship with the EU is resolved, its broader politics will be dangerously dysfunctional.

## He fought the law and the law won

The Supreme Court's welcome slapping down of Mr Johnson's unlawful suspension of Parliament was a model of neutrality. But the unrepentant prime minister told a febrile Parliament that the court had been wrong to intervene. MPs are sabotaging Brexit, he thundered; by ruling out a no-deal Brexit they are surrendering to the Europeans. The man who claimed he wanted to leave the EU to restore power to British institutions has again shown himself ready to vandalise them when it suits him.

There is no doubt, though, that the person most damaged by the ruling is the prime minister himself. As well as the ignominy of losing the case, the judgment brings more immediate problems. One is the prospect of MPs digging into new claims that, as mayor, he funnelled public money to companies owned by a close friend. (He says funds were dispensed to her with "utter propriety".) Another is that his promise to leave the EU on October 31st under any circumstances looks rasher than ever. He is

desperate to do a deal, but striking one that satisfies both the EU and his hardline Brexiteers in Parliament will be a tall order—as it was for his predecessor, Theresa May. The court has shown that it will not tolerate the kind of chicanery that his advisers seemed to think might get him out of this hole.

If Mr Johnson feels tormented by Brexit, he should think again. His lifelong aim of becoming Conservative leader had long been blocked by fellow MPs, who identified him as a lightweight and a liar. Only their panicked belief that the party needed a leader who had backed Leave, and who could win voters from the hardline Brexit Party, persuaded them to overlook the glaring flaws in his character. Brexit may well make Mr Johnson the shortest-serving prime minister. But it was also Brexit that made him any sort of prime minister.

Something similar is true of Mr Corbyn. He, too, is frustrated that Brexit, which does not much interest him, is distracting from his plans for transforming Britain. Labour's internal split on the issue is more likely than anything else to bring him down. But it is also Brexit that has catapulted him to the extraordinary position of preparing to form a socialist government before the end of the year. Brexit has done for two Tory prime ministers and counting, and split the party system in such a way that Labour might yet take office on only a small share of the vote. Even with

their humiliations, the Conservatives are ten points ahead in polls. Imagine how poorly Mr Corbyn, the most unpopular opposition leader on record, would be faring in normal times.

Voters will soon face an unappetising choice between these two inadequate leaders. With the government some 40 votes short of a majority, an election is coming. Polls show that many voters (like quite a few MPs) are defecting to the

moderate Liberal Democrats—a sign that they reject the drift to the extremes in the two main parties. Yet under first-past-the-post voting it would take an earthquake for the next prime minister to be anyone other than Mr Johnson or Mr Corbyn. And as for the great matter of the day, neither man has yet been able to say precisely what type of Brexit, if any, he could bring about. Given the polls, it is likely that neither will end up with a majority, leaving Parliament just as logjammed as today.

That is why the Brexit question is best answered by returning it to voters, via a second referendum. We have long argued that they deserve a chance to say whether the final exit deal is preferable to the one they have as EU members. A referendum would resurrect bitter arguments and infuriate Leavers, who see it as a rematch of a contest they already won. But nearly four years will have passed between the original vote and a likely exit date. In addition, what was promised has turned out starkly different from the reality, especially if Britain proposes to leave without a deal. It is thus more important than ever to find out if voters are really in favour of what is being done in their name. The public supports the idea of a second vote and there is just about a majority for it in Parliament, which can agree on little else. Only when people are given a clear choice on this question can the country begin to shake off the Brexit virus. ■



Twitterdum

# The promise and the perils of impeachment

In America Nancy Pelosi has moved against President Donald Trump. It is not the moment to cheer

AMERICA ALMOST didn't have a president. The men who arrived at the constitutional convention in 1787 brought with them a horror of monarchy. Absent a figure of George Washington's stature, the young country might have adopted a parliamentary system of government. Yet having created the office, the founders had to devise a way to remove presidents who abuse their positions—not all people are Washingtons. They defined the mechanism: an impeachment vote in the House, followed by a trial in the Senate. The question of what exactly a president should be impeached for—"treason, bribery or other high crimes and misdemeanours"—was deliberately left to Congress.

Hence, though impeachment is a constitutional provision, it is also a political campaign. That campaign began in earnest this week when Nancy Pelosi directed her Democratic colleagues in the House to begin impeachment hearings into President Donald Trump. This will not necessarily lead to impeachment. In the past, though, impeachment hearings have generated a momentum of their own. The process is fraught with risks on both sides. One thing seems certain: the process will further divide a country that is already set against itself.

Ms Pelosi has taken such a momentous step because she believes the president's behaviour towards Ukraine's government crossed a line. If that seems an obscure reason to contemplate unseating a president, remember that impeachment proceedings against Richard Nixon had their origins in an office burglary and the ones against Bill Clinton began with an affair with an intern. Mr Trump appears to have let Ukraine's government know that relations with America, including the supply of aid, depended on it pursuing an investigation into the family of a political rival—that would be more serious than a break-in or a fling. It would mean the president had subverted the national interest to pursue a political vendetta.

The federal government often gives foreign powers promises of aid in exchange for doing something that America wants them to do. The Ukraine case is different (see Briefing). America has an interest in ensuring that Ukraine is able to defend itself against Russian aggression, which is why Congress came up with a package of \$391m in military aid for its newly elected government. Mr Trump acted against the national interest in putting that aid on hold, while pressing Volodymyr Zelensky, Ukraine's president, to investigate Hunter Biden, who had business dealings in Ukraine and is the son of the Democratic front-runner, Joe Biden. If that were not clear enough, Mr Trump also sent his personal lawyer to meet an adviser to Mr Zelensky and repeat the message.

In a country as corrupt and vulnerable as Ukraine the link between American support and investigating the Bidens—you give us dirt on Joe and we'll give you weapons and money—did not need to be explicit to be understood. "I also want to ensure you that we will be very serious about the case and will work on the investigation," Mr Zelensky told Mr Trump in a call on July 25th.

You might have thought the Mueller investigation into his campaign's dealings with Russia would have made Mr Trump wary of dallying with foreign governments. It seems not. His

conduct looks a lot like bribery or extortion. And to use taxpayer funds and the might of the American state to pursue a political enemy would count as an abuse of power.

The founders wanted impeachment to be a practical option, not just a theoretical one. Otherwise the president would be above the law, a monarch sitting on a throne for four or eight years. Declining to impeach Mr Trump would set a precedent for future presidents: anything up to and including what the 45th president has done to date would be fair game. Republican partisans should consider to what depths a future Democratic president, thus emboldened, could stoop.

It would also signal to America's allies and foes that snooping on Americans who are influential or might become so was a fine way to curry favour with a president. There would be no need for the dirt even to be true. Russia and China, are you listening?

Such are the risks of ducking impeachment. Yet the risks on the other side—of pressing forward—are great, too. Voters expect impeachment to be a last resort, not a trick by one party to remove a president from the other, or a means for the losers of an election to frustrate its result. House Democrats risk looking self-indulgent as, rather than getting on with fixing infrastructure or health care, they obsess over the minutiae of internal White House communications. The hearings may spin out of control and make Democratic politicians seem ineffectual and obsessive, as the stonewalling testimony of a former Trump aide, Corey Lewandowski, did last week. The hearings may also be too confusing and rancorous for the public to follow.

Even if the House did decide to impeach Mr Trump, it is highly unlikely that he would be found guilty by the two-thirds majority needed in the Senate, where Republicans hold 53 of 100 seats. Legally, Mr Biden junior's sleazy dealings in Ukraine have no bearing on whether Mr Trump abused his office. Politically, though, the two are linked because they give Republican senators minded to defend Mr Trump a handy set of talking points.

A failed impeachment that leaves Mr Trump in office might not be much of a deterrent to this president or to a future one. In fact it might even help Mr Trump, who could argue that he had been found innocent after a partisan witch-hunt by loser-Democrats. Until this week that was the calculus of Ms Pelosi and House Democrats from competitive districts. It is not clear that public opinion has yet shifted enough to change the equation. Though it may be bravado, Mr Trump's campaign team has always insisted that the more Democrats talk about impeachment the better it is for the president's chances of re-election in 2020.

## Cast the die

Faced with such a daunting choice, Ms Pelosi had until now held back. But Mr Trump appears to be becoming more brazen as re-election draws near. The president's behaviour needs investigating, with the extra authority that the impeachment process confers. Better, therefore, to lean towards principle than pragmatism. But it is a risky and perilous path. ■



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## Quantum computers

## Supreme achievement

**A demonstration of quantum computing's power is a defining moment for a field prone to hype**

“NATURE ISN'T classical, dammit, and if you want to make a simulation of nature you'd better make it quantum mechanical, and by golly, it's a wonderful problem because it doesn't look easy.” With those words, in 1981, Richard Feynman, an American physicist, introduced the idea that, by harnessing quantum mechanics, it might be possible to build a new kind of computer, capable of tackling problems that would cause a run-of-the-mill machine to choke. Feynman was right: it has not been easy. Over the past four decades quantum computers have slowly evolved from squiggles on theoreticians' blackboards to small machines in university laboratories to research projects run by some of the world's biggest companies.

Now one of those machines, built by researchers at Google, has at last shown what all the fuss is about. It appears to have performed, in just over three minutes, a task that, the researchers estimate, the world's most powerful classical supercomputer would take around 10,000 years to complete. Google's machine is a special-purpose device that was designed to solve a contrived problem with few practical uses. But this display of so-called “quantum supremacy” is nonetheless a milestone (see Science section).

What might quantum computing actually be used for? That question is obscured by the piles of money and hyperbole that surround it. Along with 5G and AI, it is one of the technologies that presidents, of both countries and companies, love to cite. China and America have pledged to invest billions of dollars in it. There is excited talk of a race, and of the riches and power that await the first to seize the “Holy Grail of computing”.

Despite the breathlessness, quantum computers are not magical. A rich body of theoretical work proves that they will be potent, but limited. For all the talk of supremacy, quantum computers are not superior in every regard to their classical cousins. Indeed for many tasks they will offer little improvement. Yet for

some problems—but only some—clever programmers or mathematicians can create algorithms that exploit the machines' quantum capabilities. In those special cases, quantum computers offer huge gains, crunching tasks that would otherwise take years or millennia down to minutes or seconds.

Several of these algorithms have been developed. They offer a glimpse of where quantum computers might excel. In encryption, for example, a quantum machine could quickly untangle the complex maths that underlies much of the scrambling that protects information online. A world with powerful quantum computers, in other words, is one in which much of today's cyber-security unravels. Tech firms and governments are investigating new foundations for encryption that are not known to be susceptible to quantum computers. But deploying them will be the work of decades.

As Feynman pointed out, classical computers struggle to simulate the quantum-mechanical processes that underpin physics and chemistry. Quantum computers could do so with aplomb, a useful trick for developing everything from pharmaceuticals to petrochemicals. Their ability to solve optimisation problems could

help financial firms improve their trading algorithms. Artificial-intelligence researchers hope that quantum computers could offer a boost to their algorithms, too.

For now, though, all that lies in the future. Google's machine is best thought of as a Sputnik moment. By itself, Sputnik did nothing but orbit Earth while beeping. But it proved a concept, and grabbed the world's attention. Google's accomplishment is one in the eye for quantum-computing sceptics. It strongly suggests the promise of quantum technology can be realised in practice as well as theory. And it will draw even more money and attention to a red-hot field. A great deal of engineering work remains before quantum computers can be used for real-world tasks. But that day has suddenly got closer. ■



## The future of the office

## Work in progress

**Beyond the fiasco at WeWork, white-collar workers are facing a two-tier office system**

“FROM NINE till five, I have to spend my time at work,” warbled Martha and the Muffins back in 1980. “My job is very boring, I'm an office clerk.” Many of the hundreds of millions of people who trek into an office will feel as despondent at the prospect as Martha did. The office needs a revamp (see Business section). But the crisis at WeWork, a trendy office-rental firm whose boss, Adam Neumann, stepped down this week after its attempt to float its shares turned into a debacle, shows that businesses are still struggling to come up with a new format.

The large office, like the factory, is an invention of the past two centuries. The factory arose because of powered machinery,

which required workers to be gathered in one place. Big offices grew from the need to process lots of paperwork, and for managers to instruct clerks on what to do. But now the internet, personal computing and handheld devices mean that transactions can be dealt with on-screen and managers can instantly communicate with their workers, wherever they are. The need for staff to be in one place has been dramatically reduced.

A new model may take time to emerge—electric power was first harnessed in the 1880s but it was not until the 1920s that factories changed their layouts to make full use of it. The new model will have to balance three factors: the desire of many workers for ▶▶



ostrich.

*/ˈɒstrɪtʃ/* noun (financial)

person or organisation failing to see or act upon the need for a sustainable growth strategy;  
see also: *head in the sand*.

rethink everything.



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▶ a flexible schedule; the high cost for firms of maintaining office space; and the countervailing desire to gather skilled workers in one place, in the hope that this enhances collaboration.

People who work at home or in a Starbucks have no need for a stressful commute and can adjust their hours to suit their way of life. In turn, that flexibility lets companies cut down on space. Our analysis of 75 large listed services firms in America and Britain shows that annual rental costs per employee have dropped by 15% over the past 15 years, to \$5,000. Many firms operate a hot-desking system where workers find a new seat every day. At the London offices of Deloitte, a consultancy, 12,500 people have access to the building but only 5,500 desks are available.

But hot-desking can be alienating (see *Bartleby*). Every night, workers must erase all trace of their existence, hiding away their possessions. When crammed into desks sited close together, workers wear headphones to shut out noisy neighbours. Studies suggests this leads to more emails and less face-to-face communication. So much for collaboration and camaraderie.

High-skilled workers can be repelled by these conditions. So the hot-desking drive has been accompanied by a countervailing

trend, in which this elite get better facilities. Those who need to concentrate have quiet spaces. Better lighting and air conditioning aim to keep employees healthy. Apple's new headquarters has parks, a meadow and a 1,000-person auditorium. The hope is that when workers mingle or relax, that will spark ideas.

All this looks like a shift towards an airline-style world of work, with economy seating for the drones and business-class luxury for skilled workers, who enjoy some of the benefits once reserved for senior executives. But this is a hard trade-off to get right. WeWork offers a "premium economy" service in which a wider range of workers can get a few perks. But fears that its rental income may be insufficient to offset its \$47bn of lease liabilities were one reason its IPO was delayed.

The office is bound to change further. Some firms may ask if it makes sense to have offices in city centres. In an era of remote collaboration, software and documents sit in the cloud and offices could disperse to cheaper places. Mr Neumann's business plan is in tatters. But one of his insights is surely right: the office of the mid-21st century will be as different from today's as the high-tech factory is from the Victorian mill. ■

## Agriculture

# Bureaucratic herbicide

**Africa's farmers need better seeds. Governments are getting in their way**

**A** CENTURY AGO American crop scientists began experimenting with the plant known there as corn, and elsewhere as maize. They discovered that by crossing two inbred strains they could create seeds that would consistently grow better than either of the parent plants. It was the beginning of a seed revolution. By the 1940s American agricultural productivity was shooting up; by the 1960s Asia had joined the race, thanks to improved varieties of rice and wheat.

In most of the world, the green revolution continues. Open an American seed catalogue today and you will see dozens of varieties of each plant, many of them labelled "new" to show that they have been released or improved somehow just in the past year.

But on one continent, it never quite happened. African farmers still tend to use open-pollinated seeds held back from the previous year's crop or commercial hybrids that were developed years ago. That's one of the main reasons for the continent's chronically low productivity. The average field planted with maize—Africa's most important crop, which supplies 30% of people's calories in some countries—yields a third as much as a Chinese maize field of the same size and just a fifth as much as an American one.

The problem is not a paucity of science. Although crop research in Africa is not as well funded as it is in rich countries, there is enough public and private investment to ensure a stream of new seeds to suit local soils and climates. Nor is the problem ideology. African governments have mostly ignored the arguments, from some charities, that old-fashioned farming is best and that wicked, profit-seeking seed firms should be barred. They know that modern seeds make farming more productive.

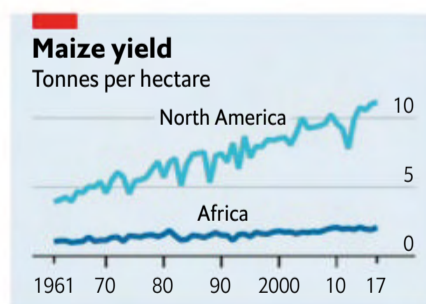
The problem is that government policies prevent farmers from getting good seeds. Many insist on lengthy field trials and

obstruct the approval of seeds that have already been certified for planting elsewhere. As a result, those on the market are always several years behind the scientific cutting edge. It need not be so. Zambia has liberalised its certification system, including by allowing seed companies to inspect themselves. In the past two decades, maize productivity there has doubled.

Although Africa's governments have mostly got out of the seed-production business, governments often subsidise seeds and former state monopolies still dominate the seed trade (see Middle East & Africa section). They flood markets with seeds that are often of poor quality or unsuited to local conditions, crowding out more efficient private distributors with better goods.

It is not a bad idea for governments to subsidise seeds to persuade farmers to try productive varieties for the first time. But that should be the limit. State resources would be better spent on research, on tackling counterfeit seeds—a big problem in many countries—or on educating farmers about how to use improved seeds and fertiliser. Ethiopia, though not a paragon of market openness, has done that well. Its maize fields are now almost twice as productive as the African average.

The bravest governments could also relax the bans that almost all have imposed on genetically modified crops. Their caution is hardly unusual. GM crops are permitted in some other places, but only on the assumption that they would be fed to livestock. In Africa they would be eaten by people. And many of the European countries that Africa exports to are hostile to GM crops. But genetic technology is often the quickest route to seeing off the pests and diseases that afflict the continent more than other parts of the world, and is the best way of producing seeds that will flourish in a changing climate. Who says that Africa should always be the last to innovate? ■



eagle.

*/ˈiːɡ(ə)l/* noun (financial)

person or organisation with far-sighted  
vision committed to sustainable  
behaviours and growth strategies.

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**In demand**

Economists helped shape American policy and public attitudes well before the 1950s (“The numbers guys”, August 31st). This is exemplified by the rise of national-income accounting in the late 1920s, the influx of economists into Franklin Roosevelt’s wartime government, the Employment Act of 1946, which created the Council of Economic Advisers, the Committee for Economic Development’s influential policy books in the 1940s, and the sharp rise in economics PhDs in the late 1940s. Before that, John Commons, the president of the American Economic Association, urged colleagues to assist federal agencies during the first world war. The National Bureau of Economic Research, founded in 1920, embarked on the first systematic efforts to gauge national income and study business cycles.

ANDREW YARROW  
*Washington, DC*

**The land is their land**

It is simplistic to blame the collective ownership of Afro-Colombian lands for the poverty in Colombia’s Pacific coast region (“No-man’s land”, August 31st). We have evaluated the effect of collective property on development in the area, comparing Afro-Colombian communities who have collective land titles with those who have none. Collective titling significantly reduces extreme poverty, increases mean household income, improves children’s school attendance in primary education and promotes housing investment.

Holding a stake in collective property indicates to inhabitants that theirs is no longer a “no-man’s land” and motivates investment. There are still sizeable gaps in socio-economic indicators between Colombia’s Pacific and the rest of the country, but without collective titling the situation would be even worse.

You further claim that the right to prior consultation in

the region delays the provision of public goods, again, with no empirical evidence. In fact, I have noticed the opposite. During negotiations, communities demand public goods that the Colombian state has failed to provide. You conclude by pointing out that not everyone shares the government’s idea of “progress” for the region. Here, we agree. It is untenable to endorse a view of progress that ignores local governance merely for the benefit of a few people.

Indeed, the law from 1993 establishing collective land titling and the right to prior consultation constitute the only noteworthy government policies favouring Afro-Colombian communities since the country’s abolition of slavery in 1851.

MARIA ALEJANDRA VÉLEZ  
Professor of economics  
Los Andes University  
*Bogotá*

**How to help Syria**

You say that the West should offer Syria “strictly humanitarian assistance” (“Assad’s hollow victory”, September 7th). There is evidence that humanitarian assistance to Syria has systematically been distributed only in areas loyal to Bashar al-Assad. The concentration of UN operations in Damascus only makes the matter worse. Many other conflicts that featured extensive civilian suffering, including the famine in Ethiopia during the 1980s, were marked by the political distribution of aid, which extended the length and cost of war. It is a morally difficult choice to withhold assistance from those in need, but in the case of Mr Assad’s regime it is the correct one, regardless of the form of foreign assistance.

JESSICA TRISKO DARDEN  
Assistant professor of international affairs  
American University  
*Washington, DC*

Medical infrastructure and staff have been systematically targeted by the Assad government and its Russian allies in

their brutal strategy of war. We have corroborated 583 attacks on at least 350 separate health facilities as well as the killing of 912 medical personnel between March 2011 and August 2019, using a highly conservative methodology. More than 90% of these attacks were perpetrated by the Syrian government and its allies.

Among other efforts to end impunity for war crimes in Syria, it is imperative that the UN’s investigation into such attacks be conducted without delay and its findings made public. It should assign culpability for these heinous acts. Hospitals should never become death traps.

SUSANNAH SIRKIN  
Director of policy  
Physicians for Human Rights  
*New York*

**Putting country above party**

I was disappointed by the omission of Stanley Baldwin from your list of British prime ministers who have headed governments of national unity (“Of gnus and other animals”, August 31st). The contrast between Boris Johnson and his interwar predecessor is stark.

Baldwin devoted much of his leadership to combating populist politics and powerful press barons, which he viewed as existential threats to Britain’s system of parliamentary governance. He agreed to participate in forming a national government in 1935 rather than taking advantage of the fragmentation of other parties in the House of Commons, believing that all parliamentarians have a duty to place country over party.

LEX RAY  
*London*

**Sacred scripture**

Your review of Tom Holland’s “Dominion” makes the assertion that “the Bible is a big and incoherent book” (“The cross’s shadow”, August 31st). Actually, the Bible is a collection of scores of books, a mixture of histories, letters, biography, song and more. The sense of incoherence comes

from not understanding the contextual situation of each book and the type of literature, giving rise to puzzlement, occasional strangeness and difficulty.

Yes, people have used verses out of context to support all kinds of monstrous positions, but what part of humanity has not been used for the purposes of warped political and social ends?

RUPERT HIGGINS  
*Bournemouth, Dorset*

**China’s gay history**

Chaguan reported that “only two decades ago, officials insisted there were no gay men in China” and that “censors have stepped up efforts to shield Chinese audiences from depictions of gay life” (September 7th). Xi Jinping constantly urges his countrymen to remember their historical and Confucian roots. An early emperor of the Han dynasty, Ai, cut off the sleeve of his robe rather than awaken his male lover, Dong Xian, who had fallen asleep in his arms, hence the Chinese expression, “cut-sleeve love.” There are indeed gay men in China, and there always have been.

MICHAEL ARKIN  
*Toronto*

**The old brigade**

Bagehot described the Conservative Party membership as mostly “over 55 years old, 70% are men, 97% are white and, as a group, they have far more authoritarian and Eurosceptic views than the population at large” (September 7th). That seem like a pretty good description of the outgoing European Commission. All right, except for the Eurosceptic bit, but the rest of the characteristics are uncannily similar.

NEIL WOOD  
*Aylesford, Kent*

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## Telephone justice

WASHINGTON, DC

**The Democrats' move toward impeachment marks a dangerous shift in America's political landscape**

**T**HE PEOPLE of south-western Connecticut are not happy with what they are hearing about President Donald Trump. Jim Himes, who has represented the state's fourth congressional district since 2008, told *The Economist* on September 23rd that he had "felt...intensely from my constituents this weekend" a sense of "outrage" over the administration's "quite clearly lawless behaviour."

Mr Himes came to support the impeachment of President Donald Trump partly because such constituents encouraged him to. Until recently, though, he thought it was unlikely to come to pass. Away from Connecticut's affluent suburbs, the idea has always been a lot less popular. Mr Himes's campaign manager knocked on hundreds of Democrats' front doors when trying to win the recent special election in North Carolina's Ninth District: "They all said to slow down on hating Trump." Hardly any of the 31 congressional Democrats who represent districts Mr Trump won in

the elections of 2016 favoured the idea.

Nancy Pelosi, the Speaker of the House, understood their concerns. The majority the Democrats won in last year's mid-term elections meant that they could, in principle, draw up articles of impeachment against Mr Trump. But he could only be found guilty if 20 or more Republican senators voted to uphold them. That is remarkably unlikely. And the pursuit of that unlikelihood might easily backfire; a failed bid to oust Mr Trump with accusations that would surely be branded fake news might energise his support and engender a broader sympathy. When the tribunes of the party's left wing talked of impeachment, Ms Pelosi dismissed the idea.

The party's position changed more-or-less overnight. "I think you'll see some of those [swing-district Democrats] pull the trigger," Mr Himes predicted on Monday evening. By the next day, they had. Tuesday morning's *Washington Post* carried an op-ed by seven freshman Democrats from

swing districts, all but one of them with a background in the armed forces or the intelligence services. They wrote that Mr Trump's "flagrant disregard for the law cannot stand," and that it was thus time "to consider the use of all congressional authorities available to us, including the power of 'inherent contempt' and impeachment hearings."

Ms Pelosi seeks to stand where she believes her caucus's centre to be: it is one of her strengths. With that op-ed, the centre moved, and the same afternoon Ms Pelosi announced that the House would begin a formal impeachment inquiry. "No one is above the law," she said.

By the time *The Economist* went to press, it appeared that a majority of the House—219 Democrats and Justin Amash, elected as a Republican and sitting as an independent, supported impeachment proceedings (see chart on next page).

Over the next two months—Democrats want to finish the process by year's end—six House committees will hold hearings into the president. They will send what they see as their best cases for impeachment to the Judiciary Committee, which will vote on whether to bring one or more articles of impeachment to the floor for a vote. If a simple majority votes in favour, the president is impeached, which is analogous to being indicted. He then stands trial in the Senate, where he can be found ►

▶ guilty only by a two-thirds majority.

Because of the 20 Republican turncoats such a majority requires, it remains very unlikely that impeachment will in fact remove the president. But it seems likely that despite this it will go ahead anyway, dragging America into new and stormy seas.

At the centre of all this is a telephone call Mr Trump made to Volodymyr Zelensky, the president of Ukraine, on July 25th. A contemporaneous memorandum of what was said, which the White House released on September 25th, shows Mr Zelensky expressing an interest in buying Javelin anti-tank weapons from America. In response, Mr Trump says “I would like you to do us a favour”. Among the things he goes on to talk about is a former Ukrainian prosecutor-general, Viktor Shokin, who in 2015 was in charge of investigating Burisma, Ukraine’s largest private oil and gas firm.

### Then everything goes wrong

One of Burisma’s board members was Hunter Biden, son of then Vice-President Joe Biden, who is now campaigning for the Democratic nomination in the 2020 presidential election. “There’s a lot of talk about Biden’s son,” Mr Trump is recorded as having told his Ukrainian counterpart, “that [Joe] Biden stopped the prosecution and a lot of people want to find out about that so whatever you can do with the Attorney General that would be great.” Mr Zelensky assures him that a new prosecutor, “100% my person” will look into the situation; Mr Trump urges him again to talk to his attorney-general, William Barr, and to Rudy Giuliani, the former mayor of New York, who acts as Mr Trump’s personal lawyer.

At no point does either side mention that, a week before the call, the White House put a stay on \$391m in military aid that Congress had voted to send Ukraine, as the *Washington Post* reported on September 23rd. Nor does Mr Trump say: “If you investigate Biden you can have the arms.” But he would not have needed to. In circles like those of Ukrainian power-brokers or the New York mobsters of Mr Zelensky’s favourite film, “Once Upon a Time in America”, deals do not need to be laid out directly for their substance to be understood. According to one person familiar with the conversation itself, rather than the memorandum, Mr Zelensky and his team were left in no doubt that the main thing Mr Trump was interested in was the Bidens.

On August 12th a whistleblower contacted the Intelligence Community Inspector General with concerns linked to Mr Trump’s conversation. The concerns were passed on to the Office of the Director of National Intelligence (ODNI) on August 26th. The law says that when an “urgent concern” arises in this way the ODNI has seven days to forward it to the House and Senate intelligence committees. Instead it

sat on the complaint in a manner that Adam Schiff, who chairs the House Intelligence Committee, describes as “neither permitted nor contemplated under the statute.” On September 13th Mr Schiff announced that he had subpoenaed the report, and other related materials, from Joseph Maguire, the acting Director of National Intelligence.

The ODNI contends that it did nothing illegal. The complaint did not need to be forwarded to Congress, it says, because it is about “conduct by someone outside the Intelligence Community,” and is thus unrelated to any “intelligence activity” that the Director of National Intelligence supervises. The ODNI did not reveal who “someone” was. The president, being outside the intelligence community, could fit the bill.

On September 24th Chuck Schumer, the Democratic leader in the Senate, moved that the complaint be provided to the intelligence committees of both houses of Congress; the Republican majority supported the motion, which passed unanimously. On September 25th the administration gave in, sending the complaint to Congress. Admiral Maguire was due to testify before both intelligence committees on September 26th. The whistleblower, too, has tentatively agreed to testify in camera.

Mr Trump has behaved self-interestedly before—indeed, he hardly has any other

mode of behaviour. He has said outrageous things to foreign leaders. He has sought to obstruct justice, as the Mueller report into links between his campaign and Russia showed. So why has this case so raised the stakes that Democrats have set aside their caution when it comes to impeachment?

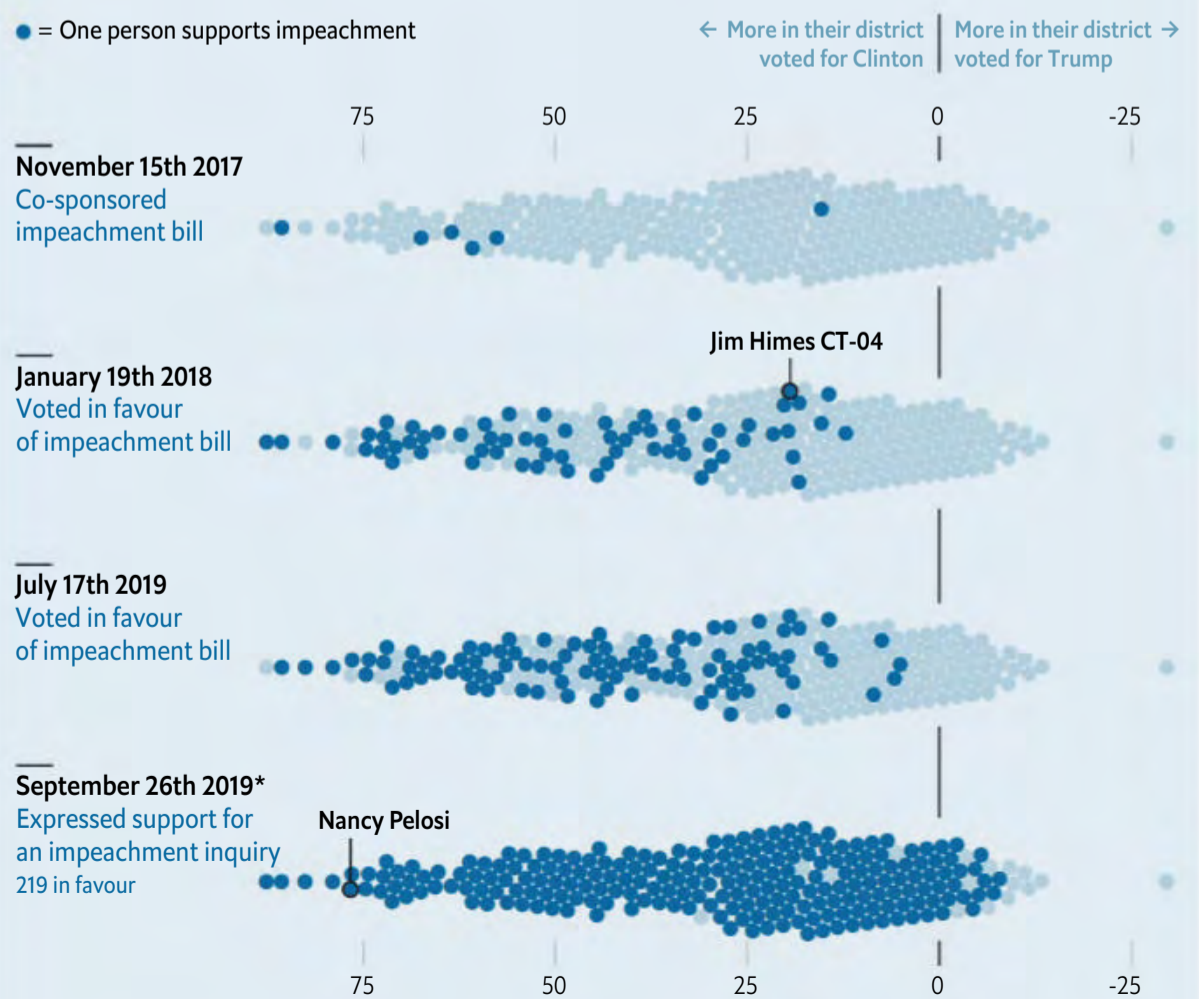
### Something you’ve known all along

One factor is the president apparently undercutting Congress’s wishes in a matter of national security in order to pursue his agenda. On September 23rd Mr Trump said he withheld the military aid because he was worried about corruption in Ukraine. This is a legitimate concern, though presidents tend not to use their personal lawyers for anti-corruption initiatives. The next day he said he withheld aid because “Europe and other nations” should also contribute to Ukraine’s defence; but Congress had not made that a condition of their appropriation. In the space of two sentences, he first denied putting pressure on Ukraine, then admitted “there was pressure put on with respect to Joe Biden.”

Mr Trump contends, though, that there was no quid pro quo—and that the pressure was applied to a legitimate end. He claims to believe that Mr Biden improperly induced Ukraine’s then president, Petro Poroshenko, to fire Mr Shokin, the prosecutor, in order to protect his son. It is true that ▶▶

### A rising tide

United States, Democratic House members who support impeachment by Hillary Clinton’s margin over Donald Trump in 2016, percentage points



Sources: Library of Congress; Politico; *The Economist*

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▶ Mr Biden urged Mr Shokin's sacking. But so did almost everyone with an interest in better government in Ukraine. Anti-corruption organisations claimed that far from aggressively pursuing Burisma, Mr Shokin was sabotaging the investigation. There is no evidence that there was ever, or should have been, an inquiry aimed at Hunter Biden himself.

Another factor that makes the case stand out is that, if what is alleged is true, Mr Trump attempted to coerce a foreign nation into interfering in an American election. This evokes memories of the Russian connection in the 2016 election. But on that occasion the president could claim he was simply the passive recipient of Russian aid. Here he initiated contact, using the power of his office for his personal benefit. If Mr Trump is happy to seek such advantage, Ms Pelosi's long-held position that the best way to punish him is by voting him out begins to look perilous.

The ur-scandal over Russian assistance in 2016 was hard to keep track of; the Mueller report, though damning in its way, was long in coming, long to read and dauntingly complex. This one is much easier. As Chrissy Houlahan, one of the authors of the *Washington Post* op-ed, puts it, "A sitting president allegedly withheld foreign military expenditures from an ally fighting against a foe of ours in exchange for information on a possible foe of his in an upcoming election." That's not so hard to understand.

There is another link to the Russian scandal; it may have bolstered a sense of impunity. After completing his report, Robert Mueller testified to Congress in July. Some Democrats hoped he might make the case for impeachment, never bluntly stated in his report. He didn't. The next day Mr Trump phoned Mr Zelensky. If not acting emboldens Mr Trump, that strengthens the case for acting.

The six House committees that Ms Pelosi has said will operate "under that umbrella of impeachment inquiry"—Financial Services, Foreign Affairs, Intelligence, Judiciary, Oversight and Ways and Means—were already holding hearings into various allegations against Mr Trump. Over the next two months they will have to determine which—if any—of those allegations add up to a high crime or misdemeanour that can be impeached.

If impeachment is to work politically they must come up with accusations not just of wrongdoing, but of wrongdoing that goes beyond the public's expectations. Consider the impeachment of Bill Clinton in 1998. Dressed up in terms of obstructing justice, it really revolved around sexual malfeasance. The public had been aware that Mr Clinton, like Mr Trump, had form in such matters. It thus never got behind the impeachment. Indeed it punished the im-

peachers at the ballot box.

Mr Trump's deviance from prior norms raises this bar. During his presidential campaign it was widely reported that he stiffed his contractors. He boasted about minimising the amount he pays in taxes. It may well be that people priced this information into their decision before voting—perhaps, indeed, under the label "smart operator". Proceedings turning on such things would feel like old news if not fake news, patronising and a bit desperate. If the inquiries uncover evidence of tax or insurance fraud, they would be best advised to refer it to state or federal prosecutors for action after Mr Trump leaves office.

Voters also knew that Mr Trump speaks and acts in racist and sexist ways. This makes his offensive rhetoric, cruel immigration policies and fast and loose funding of his border wall a matter for next year's voting rather than impeachment. Ditto attacks on the press, harassment of oppo-



**Ms Pelosi owns the process**

nents, fondness for dictators. All norm-breaking, alarming and possibly detrimental to America's long-term security and the health of its democracy. None surprising, or impeachable; all were evident when he was a candidate.

What the would-be impeachers need is something which contravenes not what Americans expect of a man, either in general or in particular, but what they expect of a president. That was what brought down Richard Nixon. As the Watergate hearings made it clear that he had used his power for personal benefit the public, originally sceptical of the impeachment process, began to get behind it.

Mr Trump's avoidance of scrutiny would seem to offer a lot of possibilities here. Mr Mueller's report detailed his habit of obstructing investigations. His hostility to congressional oversight is evinced by his refusal to surrender his tax returns, his many lawsuits against congressional com-

mittees investigating him and his businesses, and his ordering staff not to comply with subpoenas. Neither Mr Clinton nor Nixon were so reflexive, habitual or ambitious in such matters. Yet they formed part of the articles of impeachment against both men.

But at the moment it is the meat of the Ukraine scandal that seems strongest—a high-stakes story developing under the public eye. Impeachment, like much of politics, is at root an act of persuasion. The drama of discovery helps. The Watergate hearings drew in the public in part because investigators were pulling on strings without knowing where they led; news about the tape recordings made in the Oval Office emerged live during televised hearings.

That may not be the case in these hearings. The media landscape is transformed. And Messrs Trump and Giuliani have publicly admitted much of what they are accused of. Pulling on strings may reveal more. Those which lead back to Ukraine may muddy the appealing clarity; it is not a feature much found in the country. Though the younger Mr Biden's position on the board was not illegal it does not look great; that, after all, is why Mr Trump cares about it. Some strings, though, may be closer to home. Why, for example, did Dan Coats cede his job as Director of National Intelligence to Admiral Maguire three days after the call to Ukraine?

Given that the Senate is likely to let Mr Trump off, one strategy may be to keep things in the House for some time. The lengthy, dramatic Watergate hearings helped shape public opinion; the scant, rushed hearings of 1998 made Mr Clinton's impeachers look bad. And when the time comes it may be worth a defeat in the Senate to force Republicans in swing states to defend what some voters may have come to think indefensible. If, instead, some of those senators find him guilty, they may fall prey to Mr Trump's base in primaries. If impeachment loses the Democrats some House seats because people don't like all the Trump-hating but gains them some Senate seats it could be a good deal for the party—as long as the next president is a Democrat too.

But the impeachers could just as easily end up egg-faced. Some have already begun grumbling about the lack of direction. The fact that the Mueller report had no long-term effect on the president's approval is a sobering precedent. Admittedly in that case, Mr Barr got to mastermind the spin surrounding the release, which let him lessen its impact. This time the weapon will be in the hands of those who want to wield it. But with little chance of a mortal blow, they could leave Mr Trump in place, triumphant simply for having survived, just as the presidential campaign starts heating up. ■



The government and the law

## Along came a spider

**The Supreme Court rules that Boris Johnson's suspension of Parliament was unlawful, adding to the many obstacles facing his Brexit plans**

IT IS RARE for the Supreme Court to give a unanimous judgment on a contentious appeal. But that is what happened on September 24th when it ruled that Boris Johnson's prorogation of Parliament for five weeks until October 14th had been unlawful. The 11 justices upheld and even strengthened a Scottish lower-court judgment against the suspension, while overturning an English high-court finding that the issue was political and accordingly not suitable for judicial determination. In doing this, the court delivered a powerful blow to the prime minister's authority.

The blow was the more effective for the manner of its delivery. In a calm but mellifluous voice, the court's president, Lady Hale, sporting a glittering spider brooch, read out a damning judgment against Mr Johnson. If there were no limit to the government's ability to prorogue, that would be incompatible with parliamentary sovereignty. She cited a 1611 court ruling that "the King hath no prerogative, but that which

the law of the land allows him." She dismissed the government's argument that a long suspension was needed to prepare a Queen's Speech and new legislative agenda. She noted that it would limit parliamentary scrutiny. This mattered, she said, because of the exceptional circumstance that Brexit is due to happen on October 31st.

Although the Supreme Court did not say so explicitly, its ruling implied that Mr Johnson had misled the queen when advising her in August to prorogue Parliament. Not surprisingly, the opposition Labour leader, Jeremy Corbyn, interrupted his party conference in Brighton to call on the prime minister to resign. T-shirts with spider motifs quickly popped up on eBay, where they sold in their thousands. Coming after six successive defeats in the House of Commons, the passage of an act designed to prevent a no-deal Brexit, the resignation of two ministers and the removal of the Tory whip from 21 rebellious MPs, even the ebullient Mr Johnson might

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have been expected to feel some embarrassment or, just possibly, shame.

Instead he doubled down. He said he profoundly disagreed with the court's judgment. He offered no apology for his actions, even though they had been found unlawful. Although neither the government's defence nor the court's judgment suggested that prorogation was directly connected to Brexit, he declared ominously that a lot of people were seeking to frustrate it. And he continued to insist that Britain must leave the EU on October 31st, deal or no deal.

As has happened before, some of his noisier supporters attacked the judges as part of an anti-Brexit establishment bent on thwarting the will of the people. Jacob Rees-Mogg, the leader of the Commons, reportedly spoke of a constitutional coup. A few Brexiteers suggested that justices should be subject to political vetting before appointment. Yet Geoffrey Cox, the attorney-general, declared that, although disagreeing with the judges was acceptable, impugning their motives was not. Indeed, the court ruling points to a constitution that is working, not to one that is broken.

What next? The court declared that, because the prorogation was unlawful, it had not happened at all. John Bercow, the Speaker, duly recalled MPs to Westminster on September 25th. They asked about the attorney-general's advice on prorogation, ►►



► Mr Johnson's relationship with an American entrepreneur (see box) and no-deal preparations. They subjected the prime minister to two hours of questioning, in which the Tory benches roared their approval for his bombast. But he shocked many by claiming that the way to honour the memory of Jo Cox, a pro-Remain Labour MP murdered in 2016 by a far-right fanatic, was to get Brexit done. Nicky Morgan, a cabinet minister, was among those who criticised his language.

Mr Johnson repeated his demand for an early election. But under the 2011 Fixed-term Parliaments Act, two-thirds of MPs must vote for dissolution, so it needs Labour as well as Tory backing. Although Mr Corbyn said he too favoured an early election, he insisted that it was vital first to stop a no-deal Brexit happening on October 31st. That means ensuring that the so-called Benn act, which requires the government to seek an extension of that deadline if it has not agreed a Brexit deal by October 19th, works as planned before any dissolution.

A final question is what effect all this may have on Mr Johnson's negotiations for a new Brexit deal. He claimed again that these were making progress. Yet the EU still wants a legally binding, written alternative to the backstop (a mechanism to avert a hard border in Ireland), which Mr Johnson wants to excise from the withdrawal agreement. Brussels has dismissed four ideas recently put on the table by the British team. A 30-day deadline for a new plan hinted at by Angela Merkel, the German chancellor, in late August has been and gone. Suggestions by Mr Johnson's team that he also wants to ditch earlier promises to avoid any border checks in Ireland by sticking closely to EU regulations are making it even harder to reach agreement.

Mr Johnson's lost authority after the Supreme Court judgment will serve further to emphasise his weak position in Brussels. His loss of parliamentary control was anyway making his negotiating partners nervous about offering concessions. The EU side fears that, just as Westminster rejected the deal struck last year with Theresa May three times, so it could do the same to any deal done with Mr Johnson. The Supreme Court ruling will make it harder for the prime minister to find some clever way round the Benn act. So the EU is assuming that, if no deal is reached at the European Council on October 17th-18th, Mr Johnson will be forced to ask for more time.

Weary though it is of the whole issue, Brussels is likely to say yes to a further extension of at least a few months. The expectation is that Mr Johnson will then secure an election. He wants to run by standing up for the people, who voted to leave the EU, against an establishment blocking the way. His humiliation by the court this week may do that populist strategy no harm. ■

## Conflicts of interest

**The Arcuri affair****The prime minister, his pal and a pile of public money**

**I**N ANY OTHER week, for any other prime minister, it would have been a career-threatening scandal. On September 22nd the *Sunday Times* published a cracker of a story alleging that during his time as mayor of London in 2008-16, Boris Johnson failed to declare his friendship with Jennifer Arcuri, a young American businesswoman then resident in London. According to the paper, Ms Arcuri joined three foreign trade missions with Mr Johnson in one year, despite being ineligible for any of them. She also received at least £11,500 (\$18,000) in funding from London and Partners, a promotional body overseen by the mayor. Another of Ms Arcuri's companies received £100,000 from the culture department. Mr Johnson spoke at several tech gatherings organised by Ms Arcuri and is said to have frequently visited her Shoreditch flat during lunch breaks, for what she reportedly says were technology lessons.

But this is not any other week. Asked about his links to Ms Arcuri on his way to the UN general assembly, Mr Johnson six times refused to answer. When he eventually broke his silence, it was only to say: "Everything was done with complete propriety and in the normal way." Reporters scented blood. Yet after the Supreme Court delivered its dramatic verdict on September 24th, the Arcuri affair was relegated to the middle pages.

Nor is this any other prime minister. In his two months in office Mr Johnson has made a habit of violating the norms on which the British system of govern-

ment is based. Dan Hough of the Centre for the Study of Corruption at the University of Sussex likens the British system to cricket, where lots of rules are unwritten but respected nonetheless. Contrast that with football, where players feign fouls to gain control of the ball. Mr Johnson's government is applying the logic of football to a system run more like cricket. Once such codes are breached, it can be nearly impossible to reinstate them, says Mr Hough. And the more often it happens, the less scandalous it appears.

The penalties can be light, too. The London Assembly has given Mr Johnson 14 days to provide a timeline of his contact with Ms Arcuri and to explain his relationship with her. But although it can investigate breaches of its code of conduct, it "has no legal powers to apply formal sanctions". Parliament has an "independent adviser on ministerial interests" who is empowered to conduct investigations—but only if instructed to do so by the prime minister.

Mr Johnson is not off the hook. MPs, now back in Westminster, are burrowing into the affair. Newspapers are enjoying the chance to print stories that combine details of the alleged conflict of interest with snippets about Ms Arcuri's former career as a model and her reported enthusiasm for pole-dancing. Nazir Afzal, a former chief prosecutor, has said that, if proven, the allegations against Mr Johnson could amount to criminal misconduct in public office. The story may not be off the front pages for ever.

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Labour's conference

## Right on in Brighton

BRIGHTON

**Beyond Brexit and bureaucratic warfare, Labour revelled in its radicalism**

WHOOPS FILLED the air of a nightclub on the Brighton seafront as John McDonnell, the shadow chancellor, walked on stage on September 22nd. The compères of the Radical Variety Show, a side event at Labour's annual conference, had a surprise for the man who will be in charge of the world's sixth-largest economy if Labour wins the next election. "Please may I introduce to you, the wheel of public ownership!" one cried. Out came an assistant carrying a Wheel of Fortune-style spinner. On it was a host of things Labour could nationalise: BAE Systems (a defence company); banks; Greggs (a bakery); Heathrow airport. Chuckling, Mr McDonnell gave it a twirl.

Labour's conference was a mix of radical policy, fights about Brexit and interne-cine civil war. With the party trailing in the polls and at war with itself once again, MPs and activists moped from stall to stall. Things got off to a bad start when left-wingers on Labour's ruling National Executive Committee launched a botched bureaucratic assassination attempt against Tom Watson, the party's deputy leader. "It's the hitman who missed!" shouted Mr Watson at Jon Lansman, the Labour activist who oversaw the attempt, when they bumped into each other.

Labour sorted out its Brexit position, but not without a fight. Delegates at the conference, which sets party policy, narrowly decided that Labour would not campaign to stay in the EU at the next election. Instead it would support a second referen-

dum, with a viable Leave option set against remaining in the union. Although nearly all its MPs, the vast majority of its members and the bulk of its voters support staying in the EU, about a third of its voters at the last election backed Leave.

Since 2017, when Labour promised a hard Brexit, taking Britain out of the single market and customs union and ending the free movement of Labour, the party has softened its stance. At last year's conference, the mere suggestion of a second vote with Remain on the ballot by Sir Keir Starmer, the shadow Brexit secretary, triggered an enormous row. Now it is party policy (albeit after another enormous row). A motion calling for free movement to continue after Brexit was also passed. The result is that, in two years, Labour's Brexit policy has undergone a slow revolution. Nonetheless, many Remainers are cross that the party will go into the next election without a position on how it would campaign in any referendum.

Bureaucratic battles and Brexit almost overshadowed the most radical policy platform put forward by any British political leader since Margaret Thatcher. A target to make Britain carbon-neutral by 2030 was agreed on, even though some union bosses gritted their teeth at the idea. Pharmaceutical companies that tried to gouge patients would have their patents snatched, said Mr Corbyn. Mr McDonnell promised a 32-hour (four-day) working week within a decade—much sooner than the end-of-century

deadline proposed by trade unions.

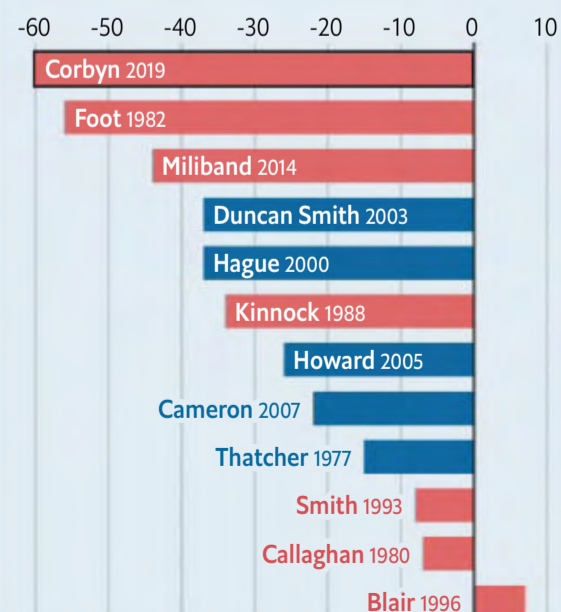
Spending commitments piled up. Labour would dish out 2.5m interest-free loans of up to £33,000 (\$40,700) for people to buy an electric car, at a cost of just under £4bn in lost interest. A "People's Zipcar" was also floated, with Labour promising to introduce a network of pay-as-you-go electric cars across the country. Another £6bn per year would be spent on personal care for the elderly. A scheme to abolish private schools would cost about £4bn per year, if all the pupils were put in state schools. Mr McDonnell casually dropped in a pledge to end in-work poverty within the first term of a Labour government, implying a large rise in in-work benefits.

Whether Labour will have a chance to enact these radical policies is another matter. Mr Corbyn is preposterously unpopular (see chart). Self-inflicted blows left a miserable mood at the conference, which contrasted sharply with previous years. The event in 2017, coming after Labour's surprisingly strong performance at the general election, was a carnival. In 2018 the party strode left in its policy line-up. This time, the optimism had ebbed, even if the policies kept coming. "Are we going to get bollocked in the next election?" wondered one prominent supporter of Mr Corbyn.

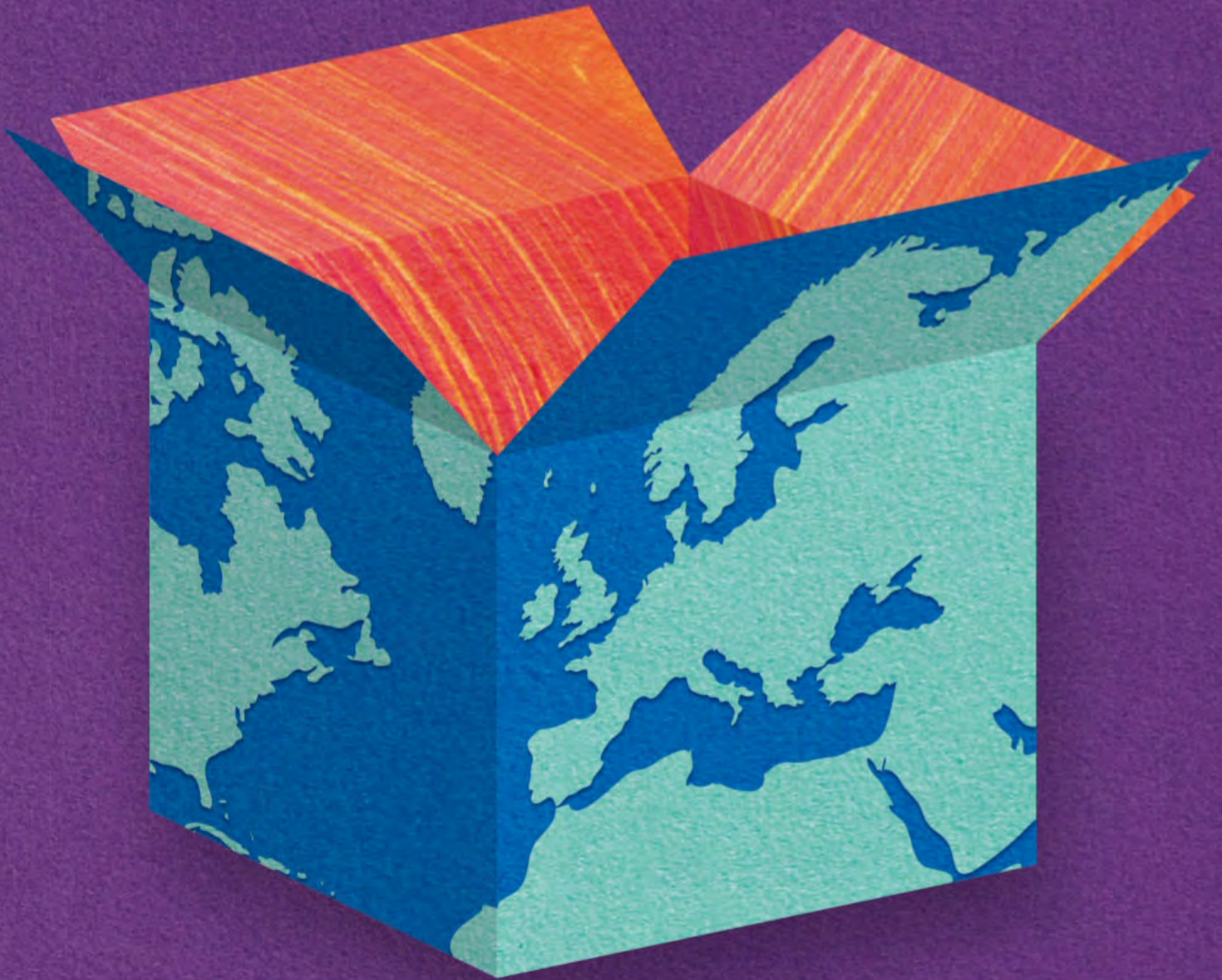
It took the judgment of the Supreme Court on September 24th and the humiliation of Boris Johnson to lift spirits. The same conference hall that was a sea of discontent when the Brexit policy was announced turned into an adoring mass when Mr Corbyn marched out and called for the prime minister to quit. "Boris Johnson has been found to have misled the country," he declared. "This unelected prime minister should now resign." Delegates erupted in cheers, their fights forgotten. For now. ■

### Top of the flops

Britain, opposition leaders' lowest net approval rating, %



Source: Ipsos MORI



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## Abolishing Eton

## A row going on down near Slough

BRIGHTON

**The Labour Party says it will scrap private schools. Is it up for the fight?**

**B**OTH THE first prime minister (Robert Walpole) and the current one (Boris Johnson) were educated at Eton College. So were 18 others in between. Annual fees are £42,501 (\$52,508), which cushion an endowment of £436m. One in five pupils is the son of an Old Etonian. Around one in four will go to Oxford or Cambridge. Founded in 1440, the school has three theatres and three museums, as well as a rowing centre. When a campaign within the Labour Party to shut down private schools came to choose a slogan, there was an obvious choice: “Abolish Eton”.

On September 22nd Labour Party conference attendees united around the rallying cry, passing a motion proposed by the campaign. It commits the party to three policies. First, it will withdraw charitable status and other tax privileges from private schools. Second, it will ensure that universities admit the same proportion of private-school pupils as exists in the wider population. Third, private-school assets will be “redistributed democratically and fairly across the country’s educational institutions”. Sol Gamsu, a sociologist at Durham University and an activist behind the campaign, hopes that a Labour government would enact the policies in sequence over two to three years.

Private schools may be unusually vulnerable now. At a time of political crisis, “the fact that those responsible were educated at Eton is a great help for us,” says Mr

Gamsu. Long beyond the reach of most, in recent years private schools have become still more of a luxury. According to Lloyds Private Banking, the average annual fee for day pupils last year was £14,289, up from £9,579 a decade earlier, an increase 19% above inflation. Less than 7% of children in England attend a private school, although a slightly higher proportion do at some point in their education. Research suggests the fees buy only a small boost to exam results: an upper estimate, which controls for things like family income, is 0.6 of a grade at GCSE, the exams sat at 16. But there is some evidence that they have a bigger impact on outcomes in the job market. Old-boy networks help (see next story).

The campaign was supported by senior figures in the party, including John McDonnell, the shadow chancellor, Angela Rayner, the shadow education secretary, and Ed Miliband, a former leader. The Labour manifesto in 2017 had already committed to charging VAT on fees, which would raise them by up to a fifth. That idea has fairly wide backing. Michael Gove, a Conservative cabinet minister, has complained that the current system “allows the wealthiest in this country...to buy a prestige service that secures their children a permanent positional edge in society at an effective 20% discount.” The motion also commits Labour to making schools pay business rates.

To make these tax changes, Labour would have to strip private schools of their charitable status, which more than half currently enjoy. Doing so would require primary legislation, and could get messy, since the government would want to find a way to exempt those that provide specialist education, such as to disabled children. Barnaby Lenon, chairman of the Independent Schools Council, notes that even if the tax plans went ahead they would amount to a survivable inconvenience to the bigger, better-known schools, including Eton. Still, the number of private-school pupils would fall, and some schools, mostly preparatory ones (which take pupils until age 13), would probably go under.

This would nevertheless be a long way short of the schools’ abolition. Ms Rayner said she would set up a review into how to integrate private schools into the state system, but stopped short of explicitly backing the other two proposals—university quotas and redistribution of schools’ as-

sets—required by the conference motion. Universities would be furious about the imposition of limits on the number of private-school pupils they could recruit, and might find ways to get around it, including rejecting state funding. The wording of the motion is sufficiently vague that some Labour policy types think Ms Rayner could get away with pushing universities to make more use of “contextual admissions” (ie, requiring lower entry grades of children from state schools).

Then there is the nuclear option. Nationalising private schools would be expensive, both in purchasing the schools’ assets and in educating 600,000 or so extra pupils. The Headmasters’ and Headmistresses’ Conference, a group of elite private schools, has vowed to fight in court any attempt to do so, with the sector arguing that nationalisation would contravene the European Convention on Human Rights, which guarantees a parent’s right to choose their child’s education.

Nor is it clear this is a fight the party’s leadership wants to have. Despite his support for the campaign, in a private meeting Mr McDonnell opposed plans to nationalise private schools, and a number of unions are worried by the proposal. A poll by YouGov found that the public opposed abolition by two to one. So a less radical approach may emerge when Labour’s manifesto for the next election is drawn up. But, as the schools are aware, Labour would not need to nationalise them to make their life a lot more difficult. ■

## Alumni clubs

## The new old-boy networks

## Public schools turn to the internet to give alumni a leg-up

**I**N A BOARDROOM 23 years ago, Gareth Lloyd-Jones was feeling the heat. After nearly 100 meetings around the City, he was no closer to floating his company on the stock exchange. Then, from among the steely faces, a young man stood up and announced that he would invest. “When you were at Rugby you were a great runner, and anyone who has that level of fitness I’m going to gamble on,” he declared. Mr Lloyd-Jones was taken aback. “I didn’t even know who he was,” he admits. “But I thought, ‘Well, this is interesting.’”

Today, as president of the Rugbeian Society, he is overseeing a technological upgrade aimed at making such connections less coincidental. In July the club launched an app that allows alumni to seek everything from interns to fellow wine-en-▶



Suited and looted?

▶ enthusiasts. It has already been downloaded by more than 800 old boys and girls.

The Rugbeians aren't the only ones going online. Of the 30 public schools in the Eton and Rugby groups, two clusters of swanky institutions that co-operate on curriculum-planning, sporting fixtures and so on, half have LinkedIn pages advertising internships. Nearly as many use a platform run by Graduway, which makes alumni-relations software that costs up to £10,000 (\$12,360). Almost half run their own digital alumni networks.

Such clubs are part of a counter-offensive by private schools in a job market that has become saturated with graduates. Some 777,000 people left higher education last year, two-thirds more than two decades ago. Guy Beresford, a headhunter and self-described "careers bod" for the Old Oundelian Society, says that when he graduated in 1981 the club was mainly "black-tie dinners and going to golf". Now, companies' desire for diversity means it is "becoming tougher for private-school leavers to walk into top jobs and top universities, and we thought that any help we could give them would be valuable."

The Rugbeian Society runs 19 summer internships in 14 companies that are managed by alumni and organised on its various platforms by a full-time staff. School ties outweigh connections made later, believes Richard Brumpton, who got his job as a financial analyst through Rugby's online platforms. "University is a much bigger operation where you have intimate relationships with less people, so you just fit into school networks a bit more." As public schools have admitted more foreign pupils (and in some cases set up branches abroad), online networks have helped to connect far-flung old boys and girls.

"I'm torn between 'is it good?' or 'is it nepotism?'" says Nick Mills, who used Old Rugbeian get-togethers to attract funding when he was setting up TicketText, a ticketing company, in 2012. "But I'm not going to go and bury my head in the sand, because it's stupid not to use it." Mr Mills is repaying the favour by mentoring young Rugbeians and letting the club use his London venue. Others are more cynical. Schools have invested in alumni societies "because they are interested in having enough people donating each month to fundraise for leaky roofs and new sports halls," reckons one Old Harrovian.

State schools are getting more interested in alumni networks, too. Future First, a charity, has helped more than a thousand comprehensives in poor areas to build networks, encouraging alumni to return to the schools to provide careers information. Future First's Amy Cuffley says the aim is to "capitalise on the wealth of role models and volunteers these schools have—in the same way private schools already do." ■



### Thomas Cook's collapse

## Checking out

### Why the world's oldest holiday firm went bust despite a travel boom

THOMAS COOK began life in July 1841, offering day-trips between Leicester and Loughborough to teetotallers. It counted Mark Twain, Rudyard Kipling and Winston Churchill among its customers, before evolving into a leading modern package-holiday firm. But its story ended ignominiously this week, with some holidaymakers locked in hotels by security guards demanding that they pay again for their rooms. Some 600,000 tourists, a quarter British, were left stranded when the world's oldest holiday firm collapsed into liquidation on September 23rd after a decade of financial trouble. It leaves behind big questions over who should pay to rescue stranded holidaymakers in future.

Until recently Thomas Cook seemed likely to escape bankruptcy. Fosun, a Chinese conglomerate keen to deploy the Cook brand in Asia, and the firm's lenders had agreed to rescue the company with a cash injection of £900m (\$1.1bn). But on September 20th its main banks threatened to withdraw their support if the group was not able to find an additional £200m, which they calculated it would need to survive the lean winter months. None of its backers was prepared to cough up. A last-minute appeal to Britain's government for a bail-out fell on deaf ears. Grant Shapps, the transport secretary, later said the company was in such a bad state that bailing it out would involve "throwing good money after bad".

What went wrong? Thomas Cook has

earned most of its money since the 1990s selling package holidays, which include some combination of flights, accommodation and food. Since then the industry has often been presented as in decline, in part because of Thomas Cook's woes. Monarch Airlines, which specialised in package deals, collapsed two years ago.

Yet package holidays are not in decline; if anything, the industry is enjoying a resurgence. In the past decade their market share against trips booked as separate components has grown. The number of Britons going on "inclusive tours" rose from 14.3m to 18.2m in 2010-18. Half of Britons' trips abroad are package holidays, reckons the Association of British Travel Agents. They are often cheaper, as firms like Thomas Cook can use their scale to negotiate lower prices on rooms and flights. The popularity of "Love Island", a reality-TV show featuring buff bodies and plenty of snogging in a holiday villa in Mallorca, has also boosted their street cred among youngsters.

Thus it is mainly Thomas Cook's business decisions that are to blame for its demise. The company took on a mountain of debt when it merged with MyTravel Group, a rival, in 2007. An ill-judged series of takeovers added to it. It could never shake off this debt; the hole in its balance-sheet was £3.1bn by its collapse. Its 550 branches in Britain also swelled its overheads.

New online-only travel agents, such as On the Beach and We Love Holidays, now Britain's fourth- and fifth-biggest package-holiday operators, easily undercut Thomas Cook on price. Cook's big bets on Tunisia and Turkey just before they were hit by a series of terrorist attacks in 2015 did not pay off. Good weather at home last year and uncertainty around Brexit this year also depressed its bookings. The £1.5bn in losses it made in the six months to March fatally wounded its balance-sheet.

Britain is now repatriating over 150,000 of its nationals—its biggest evacuation since the second world war—at a cost of around £100m. ATOL, a government-backed scheme that insures package holidays against bankruptcy, will pay for the 60% of passengers travelling on such deals, while the government will bail out the rest. That is a sore point for package-holiday firms, who feel that they are paying £2.50 per passenger into ATOL for a service that non-package holidaymakers get for free. The government, meanwhile, worries that the scheme incentivises travel firms to take financial risks, knowing that they will not pick up the tab if they fail.

In May a government review, set up after Monarch's collapse, recommended adding a 50p levy to every air fare to help pay for future repatriations. That would shift the burden away from the state, but do little to help prevent another collapse of Thomas Cook's size. ■

## Bagehot | After Corbyn

*Labour is contemplating life beyond its current leader*



THE SUPREME COURT'S thunderclap of a ruling against the government on September 24th was a godsend for Jeremy Corbyn. It not only gave him an excuse to bring his Labour Party conference to a premature end by giving his speech a day early. It also allowed the party to dispense with a speech by Tom Watson, the deputy leader, that might have resulted in mass walkouts. There is nevertheless no doubt that this year's conference, held in a rainy Brighton, was a miserable affair. An event that is designed to showcase the leader's preparedness for power was overshadowed by the question of whether he should be preparing for retirement.

The first sign of trouble was a failed attempt to remove Mr Watson from his job by Jon Lansman, the head of Mr Corbyn's praetorian guard, Momentum. It is no secret that the left covets Mr Watson's head. But Mr Lansman's timing was odd given that his plot was guaranteed to ignite an internal war and send the media into a blood-frenzy. The only explanation is panic about the succession. Under current rules the deputy leader takes over temporarily if the leader resigns and therefore plays a role in choosing the next one.

The second sign of trouble was a leaked memo by Andrew Fisher, a member of Mr Corbyn's inner circle and an author of Labour's 2017 manifesto. Mr Fisher lambasted Mr Corbyn's office for its "blizzard of lies" and "lack of competence, professionalism and human decency". The last two words were particularly cutting. He also warned that the party would not be able to win the next election with the current leadership.

The succession crisis is being driven by two numbers: 70 and 25. At 70, Mr Corbyn is on the old side for somebody who aspires to the most demanding job in British politics. And at 25, Labour's average poll rating is much too low for a party that aspires to power. Labour should be well ahead of a government that blunders from crisis to crisis. Instead it is behind in every poll, sometimes by some distance. In this year's European election Labour finished third, behind the Liberal Democrats. In two subsequent by-elections it has suffered double-digit declines in its vote share. Labour MPs from the Midlands and the north report that voters constantly tell them they will not back Labour so long as it is led by Mr Corbyn.

Labour Remainers (who make up the bulk of party members) are furious with Mr Corbyn's fence-sitting over Brexit. Matthew

Pennycook, a shadow Brexit minister, stepped down on September 25th to campaign for Remain. People across the party are disheartened by Mr Corbyn's faltering performance. Though he bought himself a period of grace with his almost successful election campaign in 2017, that has now ended. He has made a succession of unforced errors that hurt deeply, not least asking for the Russians to be called in to help investigate the poisonings in Salisbury, and dragging his feet over investigating anti-Semitism in the party. It is a measure of Mr Corbyn's leadership ability that he has managed to take a moderate position on the one subject, Brexit, where extreme positions are popular, and extreme positions on everything else.

Mr Corbyn insists that he will not only lead his party into the next general election but also serve a full term as prime minister. He is probably right about the first, given that the next election could be a matter of weeks away. But he is almost certainly wrong about the second. A year in Downing Street is equivalent to several years of ordinary life. The more interesting question is not whether Mr Corbyn can survive for the next few months, but whether the "Corbyn project", as Labour delegates call it, can survive his departure, be it the result of an election defeat or the toll of high office.

For all his many faults Mr Corbyn is a consummate machine politician. His supporters control all the party's great organs of power, from the National Executive Committee to the biggest trade union to the local parties. Mr Corbyn demonstrated his grip at the conference by engineering the defeat of a motion to throw the party's weight behind Remain. Two big unions, Unite and the GMB, voted as a bloc against the motion, the left-wing pressure group Momentum whipped its delegates to oppose it and, in a Soviet moment, Wendy Nichols, the chairwoman of the session, reversed her decision that the vote had passed after an intervention from Jennie Formby, the party's general secretary. What's more, the Corbyn project is driven by two men rather than one. John McDonnell, the shadow chancellor, remains as bright and omnipresent as ever despite his 68 years.

Against that, the party's middle ranks are much less supportive of the project. The Corbynites' preferred successor, Rebecca Long-Bailey, the party's energy spokeswoman, is a thin reed. A poor performer in Parliament and on television, she lacks both Mr Corbyn's intermittent charm and Mr McDonnell's iron grip on detail. By contrast, the party's moderate wing has a plethora of more impressive figures. Emily Thornberry is a good parliamentary debater (and outshines Mr Corbyn when she stands in for him at prime minister's questions); Sir Keir Starmer has transformed himself from a lawyer who happens to be in the politics business to an accomplished politician who happens to know a lot about the law; Hilary Benn and Yvette Cooper have a rare ability to articulate a moderate position in an age of polarisation. The most impressive members of the party's next generation—Jess Philips, Angela Rayner and Lisa Nandy—have kept their distance from Corbynism.

### Capture the red flag

Labour's ascendant left wing likes to think in terms of vast, impersonal, historical forces: the crisis of neo-liberalism, the death-agonies of imperialism and the rest of it. But the fate of Mr Corbyn's great project to build socialism in Britain depends on the political machinations of a handful of individuals. The fact that the balance of power is so delicate means that the struggle can only become more bitter in the months to come. Mr Corbyn's rise divided the party like nothing since the second world war. His eventual departure will divide it even further. ■



## Ukraine

## Hope and fear

KIEV

Can Volodymyr Zelensky live up to the huge expectations he has created?

“WE WANTED TO drain the swamp here in our country,” said Ukraine’s new president, Volodymyr Zelensky, in his now notorious phone call with Donald Trump in July. “We brought in many new people. Not...the typical politicians, because we want to have a new...type of government. You are a great teacher for us in that.”

Beyond the sycophancy inevitable from the president of a weak country that needs protection against a regional superpower that is occupying part of its territory, the conversation offers some insights into Mr Zelensky’s challenge. Having won a landslide victory in April’s presidential election and a parliamentary one after that, he has to persuade Ukrainian voters and Westerners who hold the purse-strings that he is serious about ending both corruption and the war with Russia, which has claimed 13,000 lives and displaced 1.5m people.

To these ends, he has lifted immunity from prosecution from members of parliament, long a marketplace of money for political favours, and he has brought home 35 Ukrainians, including 24 sailors, who were being held by Russia. Their return was met

with nationwide jubilation and a surge in Mr Zelensky’s approval rating, which now stands at 70%. But in order to sustain his appeal, he will have to fulfil his promises.

A recent flurry of diplomatic activity has rekindled hopes for a moribund peace process. The Minsk agreement, brokered by France and Germany in 2014-15, halted the slaughter of the Ukrainian army by Russian forces but was never implemented, so Russia still controls the Donbas region in south-eastern Ukraine.

Neither side was much interested in a peace settlement back then. The war allowed Vladimir Putin, Russia’s president, not just to destabilise Ukraine but also to portray himself as defending ethnic Russians in the country against a nationalist Ukrainian junta. Petro Poroshenko, Mr Zelensky’s presidential predecessor, also came to see the conflict with Russia as a useful way of consolidating his electoral base and diverting attention from corruption and economic woes.

Mr Zelensky’s victory has changed this calculus. Being of Jewish origin and coming from the Russian-speaking part of the

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country, he undermines the Kremlin’s narrative about Ukrainian fascists usurping power in Kiev. He is also keen to reverse Mr Poroshenko’s policies. To signal that he is serious about ending the conflict, he has unilaterally pulled back from a couple of places along the 400km “separation line”. For Mr Putin, the foreign adventures which once entertained the Russian public have become irritants; a rise in the pension age and economic stagnation are also eating away at his popularity. He wants to normalise relations with Europe and ensure the lifting of the economic sanctions imposed on Russia. He also needs the West to acquiesce in his annexation of Crimea and his retention of power after his (supposedly final) term expires in 2024.

Both Mr Trump and Emmanuel Macron, France’s president, have been calling for the normalisation of relations with Russia, mooting its return to the G7 club, though for different reasons. Mr Trump sees Ukraine at best as an irritant that frustrates his relationship with Mr Putin. Mr Macron, who has ambitions to shape a new European security architecture, has argued that “pushing Russia away from Europe is a profound strategic error”.

All this gives cause for both optimism and caution. The details of any new deal are paramount. Mr Putin wants Donbas to be granted special status within the Ukrainian constitution, provided Moscow retains influence over it and can use it to crank up the pressure on Kiev when it wants to. Ukraine has held out the pos- ▶▶



▶ sibility of holding local elections in Donbas and granting it more autonomy over local matters as long as elections are free and fair. For this to happen, however, Ukraine and its allies insist that Russia must withdraw its military hardware from Donbas; that the region's residents must be free of thuggish militants; that those who were forced to flee Donbas must be allowed to vote; and that Ukraine must be able to control its external border with Russia.

How firmly the West stands by Ukraine, however, depends largely on Mr Zelensky's ability to defeat corruption. All Ukrainian eyes are on the battle over PrivatBank, formerly owned by Igor Kolomoisky, an oligarch who allegedly siphoned off \$5.5bn from the bank in what the government described as a massive Ponzi scheme. He denies the claims. In 2016 the government nationalised the bank and filed a lawsuit

against Mr Kolomoisky in London, which is ongoing.

Mr Zelensky is in a tricky position. Although his popularity depends on being seen to fight corruption, he has close links with Mr Kolomoisky. The oligarch's television station hosted the comedy show that brought the president to prominence. When Mr Zelensky rose to power Mr Kolomoisky, who had spent the previous three years in self-imposed exile in Switzerland and Israel, returned to Kiev. His former lawyer, Andriy Bogdan, is now the president's chief of staff.

Mr Kolomoisky has secured a ruling in a Ukrainian court that the nationalisation of his bank was illegal. Meanwhile, Valeria Gontareva, the former central-bank governor who nationalised PrivatBank and who now lives in London, has been summoned for questioning by the authorities in Kiev.

Earlier this month Ms Gontareva was hit by a car in London, her son's car was torched in Kiev and her house in Ukraine was set ablaze. Mr Kolomoisky vehemently denies any involvement.

Ukraine's prime minister has now mooted the idea of a compromise with Mr Kolomoisky. This has infuriated the IMF, which is keeping the Ukrainian economy afloat. Backsliding on the nationalisation of PrivatBank could not just cost Ukraine the IMF's programme but also undermine Western willingness to support it politically and militarily.

"The most important thing is that nobody forgets about Ukraine," Mr Zelensky said as he headed to the UN General Assembly. With Ukraine embroiled in Mr Trump's impeachment controversy, there is little chance of that. But there is a risk that it will be remembered for the wrong reason. ■

France

## The view from No 2027

The countryside catches up with Napoleon

ON A REMOTE country road that winds through vineyards, a metal letter box mounted on a post marks the address of a hillside farm: 1710, route de Mérindol. From the road, almost no other dwelling is in sight. The closest neighbour, further down this southern French valley, is at number 1460. On the opposite side, the nearest dwelling is number 2027. Across the country, a bewildering system of rural addresses has sprung up, which seems more suited to an American suburb than *la France profonde*.

Napoleon imposed an orderly street-numbering system on Paris in 1805. For nearly two centuries, though, even centralised France left rural parts alone. The idea now is to bring some order to remote hilltops and valleys. A ruling in 1994 obliged communes with a population of 2,000 or more to number their houses. Now, mayors of the country's 30,000 smaller villages say that they are under increasing pressure to do so, too. The growing use of home delivery, not to mention the efficiency of ambulances and fire services, all call for clearer house identification. So mayors have been poring over maps. The Burgundy village of Lugny-les-Charolles numbered its 264 houses for the first time in July this year.

The confusion stems from the numbering method most communes choose. Sequential numbering, common in cities, mimics the system used in Paris. But many small villages have opted for metric numbering instead. This takes a central village point—often the town



Now Amazon-friendly

hall—and works outward. So a house that is 200 metres along the road from point zero will be numbered 200. Its nearest neighbour, perhaps 270 metres from the centre, becomes number 270. At each branch in the road, numbering begins again from zero.

Mayors defend the metric system's logic and flexibility. It leaves, for instance, plenty of available street numbers to use for new houses. In time, rural France may indeed grow used to its new numbered landscape, and the resident of a remote dwelling to living at number 2027. Until then, it remains a system of wondrous Cartesian theoretical clarity that is baffling to most.

Austria

## Kurz's comeback

BADEN BEI WIEN

Four months ago he faced crisis. Now he looks like winning again

THE CAMERAS flash, the crowd cheers, the music blares. Sebastian Kurz has finally arrived. Teenagers and grandmothers swarm for selfies with the young leader of Austria's conservative People's Party (ÖVP). The upper stories on the handsome Theaterplatz, in Baden bei Wien, a spa town south of Vienna, are decked with banners in the ÖVP's regulation turquoise. Someone has baked a cake. The atmosphere is somewhere between a supercharged summer fete and a heavyweight bout in Vegas.

On September 29th the ÖVP is set to win a second consecutive election for the first time since the 1960s. As in 2017 its victory will belong in large part to Mr Kurz; the 33-year-old is Austria's most popular party leader by far. Detested by many urban liberals, he enjoys a star following in much of the rest of the country. "He's the only guy who wants to make a change," says Konrad Mylius, one of several teenage volunteers at the Baden rally sporting turquoise "Wir für Kurz" ("We're for Kurz") T-shirts.

It is all the more remarkable given that it is only four months since the spectacular implosion of Mr Kurz's government, a coalition with the right-wing Freedom Party (FPÖ). In May two German newspapers published footage of Heinz-Christian Strache, FPÖ leader and vice-chancellor, and an aide promising state contracts to a woman posing as the niece of a Russian oligarch in exchange for favourable press coverage. The video, filmed during a boozy ▶▶

▶ evening at an Ibiza villa five months before Mr Strache entered government, was dynamite. A furious Mr Kurz ejected the FPÖ, and soon afterwards became the first Austrian chancellor to lose a confidence vote.

Yet he has shrugged it all off. True, the culprits were not in his party. But it was Mr Kurz who, to the consternation of Austria's European partners, invited the FPÖ, a party with Nazi roots, to join him in government in 2017. Even before Ibizagate the FPÖ had proved a troublesome partner. Herbert Kickl, the interior minister and an FPÖ ideologue, ordered a raid on a domestic intelligence agency. The government's collapse seemed to vindicate those who warned about the dangers of embracing the far right. Yet not only is Mr Kurz sure to be reinstated as chancellor, he may well pick up where he left off with the FPÖ.

Understanding how that is possible requires familiarity with the weariness that had descended on Austrian politics before Mr Kurz burst on to the scene. He built his brand in two ways. First, by spotting the gap in the centre-right market for a harder line on refugees. Having previously presented a liberal face on migration, during the 2015-16 crisis Mr Kurz, then foreign minister, began to talk tough on borders and asylum, and worked with Balkan governments to close migrant routes. Many voters lapped it up, though others feared Mr Kurz was normalising the far right.

His second trick was to address Austrians' appetite for change. By 2017 endless "grand coalitions" between the ÖVP and the Social Democrats (SPÖ) had visibly run their course; two-thirds of voters said the country was on the wrong track. Mr Kurz took over the leadership of his ailing party, centralising control and instantly catapulting it from third to first place in the polls. Since then he has retained the aura of the outsider. By convincing voters that only a coalition with the FPÖ could unleash his reformist energy, he assembled his government without much protest. "The work we

did as a coalition was very successful," he tells *The Economist* in Baden, offering tax cuts and debt reduction as examples.

Mr Kurz has brushed off recent mini-scandals over election spending and destroyed hard drives. Forming a government will be a bigger test. There are three main options: a grand coalition; a re-run of the partnership with the FPÖ, which has emerged mostly unscathed from Ibizagate (although Mr Kurz will not work with Mr Kickl); or a *dirndl* government (so-called for the colours of a traditional dress) with the Greens and the liberal Neos, who may between them command 20% of the vote.

Each constellation presents problems. Reverting to a grand coalition would torpedo Mr Kurz's reputation for disruption. A *dirndl* government would be tested by strains on migration and welfare. And to team up with the FPÖ is to be exposed to its penchant for drama and scandal; all four governments the party has belonged to have collapsed in ignominy. Thomas Hofer, a political analyst, compares Mr Kurz's predicament to "a choice between the plague, cholera and Ebola". The comeback kid's biggest challenge may lie ahead. ■

## Germany

# Not good enough

BERLIN

## Germany's new climate-change package is widely panned

LIKE DISORGANISED students, Germany's ministers had to pull an all-nighter to meet a deadline they had known about for months. On September 20th, after the members of the "climate cabinet" had spent 19 hours negotiating in the office of Angela Merkel, the chancellor, they unveiled a set of measures aimed at getting their environmentally wayward country back on track. It was a "Marshall Plan for climate protection", beamed Markus Söder, leader of the conservative Christian Social Union, Mrs Merkel's electoral partner. But it was instantly dismissed as inadequate.

Germany, the world's sixth-biggest emitter of carbon dioxide, will miss its emissions goal next year. The target for 2030, by when emissions are supposed to have fallen by 55% from 1990 levels, is also looking difficult. Hitting it means cutting annual emissions from 866m tonnes, last year's figure, to 563m in 12 years. The new package aims to chart a path to that goal.

The paper is a potpourri of subsidies and regulations, including investment in electric-car infrastructure and rail, incentives for cleaner heating systems, and expansion of wind power. At its heart is a car-



bon price for sectors not included in the EU's existing emissions-trading scheme, notably transport and buildings. The ultimate goal is carbon neutrality by 2050.

The criticism has been withering. Some experts had hoped for an initial carbon price of at least €50 (\$55) per tonne, eventually rising to over €100, to spur investment in clean fuels and retrofitting buildings, and to encourage a faster shift from the coal plants that provide 29% of Germany's electricity. Instead, the opening price will be just €10 per tonne in 2021, rising to €35 in 2025, and thereafter trading within a prescribed price "corridor". Critics also lament the government's unwillingness to touch environmentally harmful subsidies, such as tax relief for diesel. "The whole package is just a big failure," says Lisa Badum, the Green Party's climate spokeswoman.

Ambitions are limited on investment, too. Olaf Scholz, the finance minister, said spending would amount to €54bn in the next four years, all of it financed from fresh revenues. Yet although it can currently borrow at negative rates, the government retains its commitment to the "black zero" rule that requires it to balance the budget. Claudia Kemfert at DIW, a think-tank, maintains it should be spending far more on trains, insulating buildings and research into cleaner fuel.

Defenders of the package point to an annual review mechanism, monitored by experts, who can oblige the government to adjust policy if sectors slip behind their emission targets. And pressure from the Greens during the package's passage through parliament into law may ensure a higher initial carbon price.

Acknowledging the criticism, Mrs Merkel says politicians have to ensure they bring citizens along with them. The chancellor knows that voters' commitment to climate protection fades when asked about specific sacrifices they are prepared to make. Better to leave hard decisions to the next government. ■

## Rinse and repeat

Austria, parliamentary polling, %



## Turkey

# Submerging history

HASANKEYF

## A dam threatens one of the world's oldest settlements

IT IS QUITE a sight to behold. The piles of a medieval bridge, each the size of a large building, rise from the waters of the Tigris river. Cliffs riddled with thousands of neolithic caves, some still used as homes or animal sheds, some once used as churches, hover above. Farther up, an ancient citadel, home to Byzantine ruins, an Ayyubid mosque and rows of ancient tombstones, watches over the site from a steep hilltop. Countless other archaeological wonders are assumed to be buried beneath.

Hasankeyf, a town of some 3,000 souls in Turkey's south-east, has cradled one civilisation after another for 12,000 years, making it one of the longest continuously inhabited places on Earth. In as little as a few months, it will be no more. A hydroelectric dam constructed downstream will soon cut off the Tigris, sending billions of cubic metres of water flooding into the valley. Other than the old citadel, all of Hasankeyf, as well as scores of villages close to the river, will disappear underwater, part of a reservoir stretching for 136km (85 miles). Experts warn the whole project will displace up to 100,000 people. The local governor has given Hasankeyf residents until October 8th to evacuate.

An uncertain future awaits them on higher ground, on the opposite bank of the river, in a colourless settlement known as New Hasankeyf. Some locals have already moved into their replacement homes. In the meantime, the authorities have hauled

a few monuments from the ancient city, including a minaret, a tomb, a Roman gate and a bathhouse, to the new town, saving them from the floodwaters. In their old home, the antiquities overlooked limestone cliffs packed with human history and alive with the sound of wild birds. In the new one, they are surrounded by rows of matching houses and mountain slopes ravaged by dynamite.

Most people in Hasankeyf live off tourism, and some off animal husbandry. The new project threatens to wipe out both, says Ridvan Ayhan, a local activist, taking his tea outside one of the caves, watching the Tigris below. "Most of the people here will end up having to migrate to the big cities," he says. "Their ancestors settled here because of the water, and now they will have to leave because of the water."

Hasankeyf's extinction has been in the making for decades. Plans for a regional dam, part of a vast development scheme for the restive, poverty-stricken Kurdish south-east, were first drawn up in the 1950s. Construction began in 2006. Undeterred by protests at home and from abroad, by a decision by three European banks to withdraw from the project, and by opposition from Iraq, which fears that the new dam will cause water shortages downstream, President Recep Tayyip Erdogan's government has pushed ahead. Turkey expects that the 1,200-megawatt project will contribute \$412m annually to the country's economy.

In theory, Hasankeyf could easily be classed as a UNESCO world heritage site, which might make Turkey think twice before flooding the town. But there is a catch. Only national governments can nominate places for UNESCO status. Mr Erdogan and his ministers are hardly likely to seek protection for a monument they have already doomed to extinction. ■



Time to go

Estonian alcohol tax

## Sober calculation

HELSINKI AND TALLINN

### A populist party calls for cheap booze

THE FERRIES that ply the waters between Helsinki and Tallinn resemble floating shopping malls, equipped with fast-food franchises, clothing outlets and supermarkets. For many Finnish passengers the main attraction is the booze. Like other Nordic countries, Finland levies punishing taxes on alcohol: for hard liquor, €48.80 (\$53.61) per litre of pure alcohol content, or €19.52 in tax for a litre of vodka. The intent is to suppress the high alcoholism rates that plague the land of endless winter nights. Estonia's alcohol taxes are far lower, so for years Finns have crossed the gulf to stock up, imbibing heartily along the way.

This pie-eyed pilgrimage shrank after 2016, when a reformist government launched a series of increases in Estonia's alcohol taxes. By the start of this year Estonia was charging a bit over half the Finnish rate on hard liquor, making it hardly worth the trip. The government hoped to raise revenue, cut down on the less desirable sorts of tourism and improve public health through lower consumption. But Estonia's neighbour, Latvia, failed to match the rise. Soon it was Estonians who were crossing the border and returning laden with booze.

The public-health stakes are high. Estonia's domestic alcohol consumption fell as taxes rose, but still rivalled that in Nordic countries. As of 2018 the typical Estonian was quaffing 10.1 litres of pure alcohol per year—a bit below the Finns, who averaged 10.4. Swedes and Norwegians drink much less. Estonia's previous government had committed to raising liquor taxes still further.

That changed in April, when Ekre, a far-right party, became a junior partner in the government. Since the 1990s Estonia has largely been governed by sober centrists. Ekre are Eurosceptic populists. The party campaigned on blocking immigration and curtailing native-language education for the Russian minority, but it has yet to do much about those issues. Its one big policy change has been a hefty cut in alcohol excise taxes. As of July 1st, the tax on hard liquor fell from €25.08 per litre of pure alcohol content to €18.81. Estonia prides itself on becoming ever more like a Nordic country. But Ekre has made that aspiration more distant.



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# Charlemagne | Emmanuel Macron's long game

The French president's European strategy enters a new phase



ON SEPTEMBER 26TH 2017 a freshly elected Emmanuel Macron gave a speech at the Sorbonne University in Paris. It lasted over one-and-a-half hours and argued for a hugely more ambitious EU. Amid poetic overtures about Europe's common fate was a long list of proposals to integrate the continent more tightly, in order to toughen it up for a more demanding world. "European sovereignty requires constructing, and we must do it," insisted the new leader. Yet now, on the speech's second birthday and as Mr Macron nears the midpoint of his presidential term, his roster of European achievements is modest.

The timing was poor. Delivered just after Germany's federal election, the speech was meant to inspire the incoming government there. Yet the coalition talks dragged on; then the young German government was plunged into a squabble about immigration; then the anti-establishment *gilets jaunes* (yellow jackets) protesters took to French streets and mired Mr Macron in domestic matters. His approval ratings have recovered in recent months and Macroniste minds are once more turning to the European picture.

But timing was not the only problem. Berlin works differently from Paris; speeches there are not battering-rams but ship's tillers, gently adjusting a course. Some German leaders felt ambushed by the Sorbonne talk. Angela Merkel found it too ambitious (the chancellor and the president admire each other, but she finds him cocky and he finds her complacent). French and German officials can be pessimistic about each other's countries. In Paris they mutter darkly about Germany's export-dependent economic model; in Berlin they fret about the president's fragile grip on his country.

Proposals to integrate the euro zone were just one part of the Sorbonne speech, but a crucial one. They have made virtually no progress. A nascent budget for the monetary union, which Mr Macron suggested in 2017 should be worth "several" percentage points of its GDP, will be tiny. A coalition of northern states led by the Netherlands has bolstered Germany's opposition to anything bigger. A single European banking system and a common government bond, the best ways to avoid the euro zone's collapse in a future crisis, remain distant prospects. The balance in other areas is also meagre. Europe still lacks a "common strategic culture" and member states are generally too divided to talk to their African

neighbours, let alone China, with a single voice. A "genuine European asylum office" enforcing a common migration regime has not materialised. The president's hints at a realignment of European party politics, disrupting the established pan-continental party groups, has led merely to the rebranding of the existing liberal group in the European Parliament after May's elections.

It is therefore tempting to write off the Sorbonne agenda as a flight of a fancy by a *naïf* new president. This would be wrong. Some of Mr Macron's aspirations have been realised. A European Defence Fund is now financing common projects, the euro budget might yet prove a first step to something bigger, and an array of smaller initiatives (European university networks, for example) are in train. One German official claims that Berlin and Paris have achieved more together in the past two years than during the presidencies of any of Mr Macron's recent predecessors.

Anyway, it is unfair to judge the president's ideas after only two years. His initial priority was to change Europe's attitudes (its "software" as they are known in Macron-land) towards how ambitious the bloc can and should be. In Brussels and other capitals this is obviously under way; even Berlin is now proposing a common European unemployment reinsurance scheme. Outside events—a fracturing transatlantic relationship, fears of China, security threats, a looming slowdown—are helping. The process of transforming Europe, Mr Macron argued at the Sorbonne, should come during the EU's 2019-2024 institutional term.

Now that is beginning and his prospects look better. The president successfully proposed Ursula von der Leyen, a like-minded German minister, to lead the incoming European Commission. In its personnel and its programme her "geopolitical commission" has a Macroniste flavour. Nathalie Loiseau, the president's former Europe minister and now an ally in the European Parliament, notes that its priorities—such as a more activist industrial strategy, better technology policies and stronger European defence—echo those of the president. That the president also levered Christine Lagarde, an economically doveish Frenchwoman, into the presidency of the European Central Bank also helps him.

Mr Macron has had to adapt. He has discovered that Germany is a cautious and insufficient ally. So he is building a broader network of friends. At an EU summit in May he advocated a carbon-neutral EU by 2050 with seven other environmentally minded governments. That pushed sceptics like Mrs Merkel to accept the goal and other member states followed. The president is similarly striving to build "coalitions of the willing" with Germany and others on migration; and with the Nordics and central Europeans on defence. He is learning the value of going out on a limb. At the G7 summit in Biarritz last month he seized the initiative to mediate between America and Iran. It is less clear that his new quest for a breakthrough in talks with Russia over Ukraine will succeed.

## Paris, capitale de l'Europe

The Sorbonne agenda, then, is entering its implementation phase. Mr Macron wants to persuade the new commission to accelerate progress on subjects like digital regulation, trade deals, "strategic" investment in new technologies and co-operation on migration. The goal is a Europe in 2024 that is more confident, sovereign and hard-nosed. He will not achieve all, or perhaps even most, of the ambitions he articulated at the Sorbonne. Even his re-election as president in 2022, though looking more likely than six months ago, is far from certain. But he stands a good chance of realising parts of his vision. That in itself would be an achievement. ■



## The Supreme Court Robes on

WASHINGTON, DC

**Fallout from America's culture wars looms over the justices' new term**

**A** BOLSTERED five-justice conservative majority begins its first full term together when the Supreme Court returns to work on October 7th. The session follows four tumultuous years that saw one death, a retirement, three pitched Senate confirmation battles, two new arrivals and, for Justice Ruth Bader Ginsburg—86 and the anchor of the court's liberal wing—two cancer diagnoses. A bundle of hot-button controversies await the nine.

Discrimination against gay and transgender people is on the docket on the justices' second day back. The question is whether the bar on discrimination "because of sex" in Title VII of the Civil Rights Act of 1964 prevents an employer from disadvantaging employees on the basis of their gender identity or sexual orientation. Fewer than half the states have laws against sacking workers because they are gay or trans. Now the Supreme Court will decide if the federal civil-rights umbrella protects some 8.1m LGBT workers across America.

Gerald Bostock, a child advocate (wel-

fare officer) in Georgia, was fired after joining a gay softball league. Donald Zarda, a skydiving instructor in New York, was sacked after he told a customer he was gay. Mr Zarda died in 2014, but in 2018 he prevailed posthumously in the Second Circuit Court of Appeals. Sexual-orientation bias, the judges held, is "a subset of sex discrimination", because it is based on notions about "how persons of a certain sex can or should be". Mr Bostock's similar contention was rejected in the 11th Circuit, creating a split that the Supreme Court is this term stepping in to resolve.

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Transgender discrimination gets separate treatment in *R.G. & G.R. Harris Funeral Homes Inc. v Equal Employment Opportunity Commission*. After six years as a funeral director in Michigan, Aimee (née Anthony) Stephens wrote to Thomas Rost, her boss, explaining that she planned to transition and would present herself as a woman at work. Two weeks later Mr Rost fired Ms Stephens. Failing to wear the suit and tie required of male employees and presenting as a woman would have a negative impact on his clients' "healing process", Mr Rost's lawyers say, and the "original public meaning" of sex discrimination when Congress wrote Title VII in 1964 did not require transgender people to be treated according to their self-declared gender identity rather than their biological sex.

A three-judge panel of the Sixth Circuit Court of Appeals disagreed. Mr Rost illegally discriminated against Ms Stephens, the panel held unanimously, by treating her differently from how he would have treated a female employee and by requiring her to conform to male stereotypes.

The Trump administration has taken the employers' side in the Title VII cases—contrary to the view of another arm of the federal government, the Equal Employment Opportunity Commission—and will take part in oral arguments. The federal government has a more direct stake in two immigration disputes to be heard on November 12th. A reprise of a 2017 case asks ▶▶

▶ whether a border-patrol agent can be sued for shooting and killing a Mexican boy across the southern border. The justices will also sort out a two-year-long fight over Donald Trump's attempt to wind down Deferred Action for Childhood Arrivals, or DACA, Barack Obama's programme granting relief to undocumented immigrants who arrived as children. Challengers and several courts have said the rollback was "arbitrary and capricious", in violation of the Administrative Procedures Act.

A significant Second Amendment case involving a gun regulation in New York City is scheduled for argument on December 2nd. But after the Supreme Court said it would review the constitutionality of the law—which prohibits New York City residents with firearms licences from taking their guns to the suburbs—the rule was rescinded. The plaintiffs, anxious to fortify the individual "right to bear arms", have implored the Supreme Court to keep the case on its docket. But New York says there is "no ongoing injury" to the aggrieved gun owners and no controversy left to adjudicate. On October 1st, when the justices meet privately to review reams of petitions that have piled up over the summer, they will discuss whether to scrap *New York State Rifle & Pistol Association Inc. v City of New York* or carry on as planned.

Other notable cases among the 50 the justices have already agreed to hear include a driver's privacy row in Kansas; fallout from the 2013 "Bridgewater" scandal in New Jersey; and a church-state fight in Montana. Several budding petitions could make headlines, too. An immigration case that Stephen Vladeck, a law professor at the University of Texas, says may have "sweeping ramifications" asks if undocumented immigrants on American soil have a constitutional right to judicial review when being detained or deported. A case involving Louisiana abortion-clinic regulations nearly identical to rules the court struck down as an "undue burden" in 2016 gives the new conservative bloc a first swipe at pushing back abortion rights.

According to Kate Shaw, a professor at Cardozo law school, "it seems almost certain" that the limits of presidential power will soon be another point of contention. Likely subjects include the president's push for the power to remove the director of the Consumer Financial Protection Bureau, executive privilege in battles over tax returns, a crackdown on asylum, emergency funding for a border wall and the president's ability to block critics on Twitter.

In April Mr Trump tweeted that if "the partisan Dems ever tried to impeach", he would "first head to the US Supreme Court". By narrow votes, the justices have backed several of the president's controversial moves, but Mr Trump should not expect them to come to his rescue during impend-

ing impeachment proceedings. In 1993 Chief Justice William Rehnquist wrote for a unanimous court that impeachment authority "is reposed" in Congress, "and nowhere else". Still, if the House of Representatives winds up impeaching Mr Trump, the politics-shy Chief Justice John Roberts will find himself playing a constitutionally required role he is unlikely to relish: presiding over the president's removal trial in the United States Senate. ■



## Electronic monitoring Pricey tags

INDIANAPOLIS

**An alternative to cash bail comes with its own costs**

**K**ATHLEEN MERCHANT was already on probation when she got into an argument with her room-mate, who called the Indianapolis police. Ms Merchant was taken to jail, where she languished for three weeks because she neither had nor knew anyone with \$500 for her bond. Eventually the Bail Project, a national non-profit that pays people's bail, came to her rescue.

But as a condition of her release, she had to wear an ankle monitor. In this, Marion County, where Indianapolis sits, behaves like many other counties. It charges those who wear monitors for the privilege; Ms Merchant paid \$13 per day plus a \$50 activation fee. This is a hefty burden for someone like Ms Merchant, who has neither a job nor a stable home. Her lawyer warned that if she objected to the fee, she would be sent back to jail, so she kept quiet. But, as she notes, "just because you say I

have to pay \$50 doesn't make me have \$50."

Ms Merchant's story is not unusual. Electronic monitoring (EM) is increasingly seen as an alternative to cash bail, which has come under fire recently for two reasons. First, because the political and legal winds are shifting against keeping people locked up simply because they cannot come up with a few hundred dollars for bail. Second, because bail keeps jails overcrowded, whereas EM lets people await trial at home. Most places that use EM charge for it, just as many jurisdictions charge inmates for their own imprisonment. But as jurisdictions reject one type of injustice, they risk instituting another. EM tends to come with high fees and at times impossible conditions.

The fees vary by jurisdiction and even by judge. Finding comprehensive national data is all but impossible. Some in Marion County—which a number of experts say has America's highest rates of EM use—pay more than Ms Merchant, though fees are capped at \$14 an hour. Others pay less if they can convince a judge that they are poor, or if they successfully complete what Ms Merchant and others familiar with the system describe as a burdensome and confusing financial application for relief.

"John", a defendant in Louisiana, says he paid \$180 a month for his monitor, as well as \$250 to repay the loan for his bail. Officials often maintain that the fees are intended to cover costs, but sometimes they exceed them. The sheriff of Kane County, Illinois told a local newspaper that monitoring costs \$3.75 a day, even though wearers are charged \$10.

Conditions also vary. The Cook County Sheriff's Office says that wearers "are often granted permission" to work or attend college. But Sharlyn Grace, director of the Chicago Community Bond Fund, says that though it is theoretically possible to get permission, "in reality it's hard to obtain".

And although granting permission for regular working hours is easy enough, many low-wage jobs have schedules that vary, often with little notice. Wearers who go to work without that permission could be returned to jail. Monitors are GPS-tagged and sound an alarm when the wearer is not where he is supposed to be. John says he was fired because his curfew prevented him from working when he was needed. Then there are child-care emergencies, groceries to buy and errands to run.

Alarms also sound when a device's batteries run down or when the signal is lost. Ms Merchant said she was on an unexpectedly long bus ride from a job interview when her device began beeping. She was reduced to pleading with businesses to let her plug herself into the wall for two hours to recharge her monitor. Trailers' metal walls can block the signal, triggering an alert. In these situations, wearers must ▶▶

▶ plead their cases to police, whose disbelief can return them to jail.

EM's defenders argue, correctly, that remaining at home with an ankle monitor is better than going to jail. But that is a low bar to clear. Like jail, which charges inmates exorbitant fees for essentials, EM extracts fees from people convicted of no crime. States and cities could use the cost savings from jailing fewer people to pay for EM. Instead, many see poor people as yet another source of revenue.

Monitoring also stigmatises people. As David Gaspar, operations manager for the Bail Project, notes, when people see someone with an ankle monitor, they do not think "There's an innocent person." They wonder what that person did. And the burdens this stigma imposes can outlast the reason why they are fitted. Ms Merchant's case was dismissed when the complainant repeatedly failed to appear in court. She still owes Marion County hundreds of dollars in monitoring fees. ■

### College sports

## Pay for play

### Student athletes may at last be allowed to profit from their talent

TUNE IN TO a college football match in America, and you might think that you were watching a professional rather than an amateur sport. The biggest stadiums routinely fill over 100,000 seats. Corporate sponsorships are common. Television broadcasts are supersaturated with ads for expensive pick-up trucks and beers. All told, America's college athletic departments brought in a combined \$18.1bn of revenue in 2017, up from \$9.8bn in 2007.

Despite the popularity of their output, college athletes receive no remuneration. The National College Athletic Association (NCAA), which governs college sports, has long forbidden its players to receive any compensation. These ordinances have always been controversial. But after years of legal challenges and intense public scrutiny, the NCAA's clampdown on paying jocks is at last starting to crack.

On September 10th California passed a bill which would allow athletes at colleges in the state with lucrative sports programmes to hire agents and earn money on the side through sponsorship deals or autograph sales. The bill still needs to be signed by the governor, and would not come into effect until 2023. Similar legislation is being considered in other states and at the federal level.

Some lawmakers would like to go one

step further. Senator Bernie Sanders, a presidential candidate, put it plainly when he tweeted: "College athletes are workers. Pay them." Yet treating athletes as employees could create complications. Title IX, a federal law, prevents colleges from discriminating between students by sex. Would this mean that colleges would have to pay their female basketball players as much as males, for example, even if the men bring in more revenue?

Richard Borghesi, an economist at the University of South Florida-Sarasota, has written a pair of papers looking at how much top athletes would make if they were paid according to their ability to generate revenue for their colleges. In addition to ticket and merchandise sales, college athletes also play a role in soliciting donations from rich alumni. Taking these factors into account, Mr Borghesi estimates that the top 10% of football and 16% of basketball players would be paid around \$400,000 and \$250,000 a year respectively.

The NCAA opposes California's efforts. The association notes that college athletes already receive compensation in the form of scholarships, and argues that any further remuneration would jeopardise the integrity of what is meant to be an amateur endeavour. The NCAA has also threatened to ban Californian colleges from competing in national championships.

Although the NCAA's objections may have been valid at some point, they make little sense today. The two most lucrative college sports, American football and basketball, are highly competitive. Many universities are willing to bend over backwards to enroll talented players. And the argument that university athletics remains amateur would hardly earn passing marks in even an introductory college course. ■



Half-time or overtime?

### Public polling

## Unknown numbers

WASHINGTON, DC

### A new iPhone feature poses a threat to opinion surveys

AMERICAN MOBILE-PHONE users are inundated with spam callers. Hiya, a Seattle-based call-monitoring service, estimates that consumers received 26.3bn robocalls in 2018, up 46% from 18bn the previous year. Phone manufacturers have taken note of their customers' woes. In its latest software release, Apple has made it possible for iPhone users to send all unknown callers to voicemail automatically. Although the feature will no doubt prove useful to the millions of customers whose peaceful suppers are ruined by fake calls, it could be disastrous for the faltering public-polling industry.

The challenges telephone pollsters face have been growing. Polling by phone has become very expensive, as the number of Americans willing to respond to unexpected or unknown callers has dropped. Back in the mid-to-late-20th century response rates were as high as 70%, according to SSRS, a market research and polling firm. But the Pew Research Centre estimates that it received completed interviews from a mere 6% of the people it tried to survey in 2018. Although polls with low response rates can still be accurate, their costs increase dramatically as pollsters must spend more time and money calling more people. According to the American Association for Public Opinion Research, a traditional, high-quality survey of 1,000 Americans costs roughly \$48,000.

Apple's new call-blocking feature could push costs and response rates into more perilous territory. Robert Griffin, research director for the Democracy Fund Voter Study Group, a group of public-opinion researchers, says the software poses an "existential problem". With call-blocking, the barrier to carrying out good polls shifts "from people not picking up their phones to people not even getting the call at all". Analysts do not even know precisely how the new technology will affect the industry—but with response rates already falling sharply, whatever is in store for pollsters cannot be good.

Mr Griffin does his best to see a bright side. The challenges of phone-based public-opinion polling could spur researchers to adopt newer, more innovative methods, including online polls. They are cheaper and quicker than telephone surveys, and provide a better framework for studying Americans' attitudes and behaviour. Surveys conducted over the internet allow re- ▶▶



searchers to check in on the same individuals over time—a method that allows pollsters to conduct what they call “panel” surveys—to measure actual changes in opinions and to focus on smaller sections of the population. Both these practices are close to unaffordable for all but the best-funded telephone pollsters.

The future of polling has yet to be determined. “It pays to be nimble,” Mr Griffin says. Online surveys rely on complex statistical adjustments called “weighting” to ensure the demographics of their respondents match the overall portrait of Americans. At present this strategy is working, but only because Americans’ political behaviour is closely related to their demographic group. African-Americans and whites differ on who they want as president as do voters with and without college

degrees. Changes in those correspondences can catch pollsters off-guard. Researchers at the University of New Hampshire neglected to take education into account when weighting their polls for the 2016 presidential election, over-counting degree-holders. They predicted Hillary Clinton would beat Donald Trump in the state by 11 percentage points. In the end, she won by 0.4 points.

“The truth is that surveying people is hard,” Mr Griffin says, “and any single solution is probably going to be inadequate.” The only way to future-proof the public-polling industry is to experiment constantly with new technologies. Many organisations are doing just that. Because of the speed of technological change, the ones that are not will soon be forced to follow suit—or shut their doors. ■

Though she is famous for her attention to detail, she often talks about health care in no more than generalities. On September 19th Mr Buttigieg took a swipe at her for being “extremely evasive” when she was asked whether Medicare for All would increase middle-class taxes. Ms Warren seems reluctant to talk about details like costs and implementation timelines, perhaps because remaking the enormous American health-care sector in the image of Britain’s National Health Service could realistically take a decade.

This uncertain positioning is not unique to Ms Warren. Kamala Harris has performed a tortured dance of support for the Medicare for All plan, flip-flopping several times on whether or not she would ban private insurance, as the plan dictates. Yet even Ms Harris, who has been much woollier on policy than Ms Warren, has released her own version of Medicare for All. Other candidates who are further down in the polls, like Cory Booker, a New Jersey senator, and Andrew Yang, a businessman, have embraced Mr Sanders’s plan without offering their own.

The drawback of Ms Warren’s vague approach is that Mr Sanders’s specific vision for achieving universal coverage goes unchallenged. Both Germany and Australia have done what he proposes through a mix of public and private options—a model that may be more easily accomplished in America than a single-payer option. At the same time Medicare, in its current form, also has some disagreeable attributes: it is far from free at the point of service, it pays for many expensive drugs without conducting cost-benefit analyses and it involves some onerous billing paperwork.

Preliminary costings of a Sanders-style plan suggest new government expenditures of \$30trn or more over the course of a decade. That is 11 times the (optimistically estimated) revenue brought in by Ms Warren’s wealth-tax idea—suggesting that most of the balance would have to be raised from less wealthy Americans. Her general retort to this sort of point—that aggregate health costs would still drop for middle-class families—is both fair and deserving of more detail.

Yet vagueness could be politically advantageous for Ms Warren. Her steadfast support for Medicare for All allows her to attract progressive voters within the Democratic electorate—especially the college-educated whites who have fuelled her rise in the polls. Criticism of the plan from moderates has been directed at Mr Sanders. That dynamic was on vivid display in the last presidential debate, held in Houston on September 12th. Yet if the primaries deliver Ms Warren the presidential nomination, she will need to be prepared for voters to give her health-care plans a more thorough examination. ■

## Health care

# What Warren wants

NEW YORK

**The senator from Massachusetts, usually big on detail, has stayed vague on health care**

**S**PEAKING TO A crowd of 20,000 from beneath the arch of Washington Square Park in New York on September 16th, Elizabeth Warren received the loudest cheers when she declared: “I know what’s broken, and I’ve got a plan to fix it.” In a Democratic presidential primary contest in which there has been little movement in the candidates’ positions in the polls, Ms Warren, a senator from Massachusetts, has engineered an exceptional rise, thanks in part to her plans, both wonkish and attention-grabbing, for universal child care, a wealth tax, a \$3trn climate-change plan and the break-up of America’s biggest technology firms. But on health care—which may be the biggest issue of the election—Ms Warren does not have a plan of her own. Nor, it seems, does she intend to release one.

Throughout the primary, Ms Warren has signalled unwavering fealty to the Medicare for All proposal advanced by Senator Bernie Sanders, a fellow progressive. But she was once more open to other positions. Though all the Democratic Party’s primary candidates agree on the need for universal coverage (27.5m Americans, or 8.5% of the population, still lack health insurance), they disagree on the best way to achieve it. Medicare for All, which has become the default progressive plan, envisages a single-payer system free at the point of service—abolishing private health-insurance schemes altogether. The moderates who dislike Mr Sanders’s ideas—like Joe Biden, Pete Buttigieg and Amy Klobu-



## Very general medicine

char—propose improvements to private health-insurance exchanges created by Obamacare and the creation of a public option for those who want it.

Ms Warren previously seemed persuaded by such a policy. Her Consumer Health Insurance Protection Act, reintroduced in April of this year, sensibly focuses on shoring up exchanges, ending surprise billing and closing some loopholes for sub-standard health insurance. At a town-hall meeting broadcast on CNN in March, she sounded open to “different pathways” to Medicare for All.

She has remained vague on the subject.

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OPERATING WORLDWIDE

## Lexington | Lessons from Bloody Harlan

*A brief reopening of the class struggle in deepest Appalachia slams shut*



NOT SINCE the 1970s had the miners of “Bloody” Harlan County been so united in fury. It was bad enough when Blackjewel mining, one of the main employers in their eastern Kentucky community and the sixth-biggest mining company in America, went bust in July with their wages unpaid. But then word got out that the bankrupt company had sold—and was about to shift—almost 100 trucks of coal that the unrecompensed miners had dug up.

Half a dozen of them took to the tracks and turned the train back. Another score, with wives and kids and neighbours in tow, helped them pitch a makeshift camp across the line. “No pay, we stay” was their slogan—daubed, in a militant-rustic style, on a bed-sheet banner. A local restaurateur sent provisions, bluegrass musicians provided entertainment and journalists brought attention to the fight. Yet it was when the miners were joined by a group of transgender anarchists, acknowledged some of the handful still camping out on the track last week (amid vast piles of donated toiletries and food and a rising panic about bears), that they really got their camp organised.

It is amazing how strange this impromptu protest has turned out to be—and how revealing of America’s culture wars. That is in part because of history. The miles-deep coal mines of Harlan County, a region of wooded Appalachian hills rising up to Kentucky’s highest point, were for decades synonymous with violent industrial action. Clashes in the 1930s sparked by the miners’ efforts to unionise gave the county its “bloody” moniker. Many of the Blackjewel miners’ fathers and grandfathers were involved in them. “My dad told me about it, gun battles and company gun thugs that beat you to death,” recalled Darrell Raleigh, seated beside the tracks. A veteran of 46 years underground, he himself took part in another round of strikes, in the 1970s, which left one dead and was the subject of an Oscar-winning documentary.

Publicised on social media as #BloodyHarlan, the Blackjewel blockade looked like a time-honoured, morally unambiguous stand-off—“the little man against the big man,” as Mr Raleigh said with relish. The Harlan miners had been stiffed; their community had rallied around them splendidly; and Blackjewel’s CEO, Jeff Hoops, looked like a classic fat-cat villain. While running his mining company into the ground, and never mind its 1,700 miners, he

defaulted on corporate taxes while pouring millions into a vanity project—an Appalachian resort called The Grand Patrician, named after his wife Patricia, that will boast a 3,500-seat replica of the Coliseum. For liberal observers, including journalists, activists and Bernie Sanders, whose campaign sent a batch of pizzas to express its support, the protest represented a rare opportunity to set aside the vexed and divisive realities of America’s dying coal industry—its pollution, its outsize political influence, its unanimous support for Donald Trump (for whom 85% of Bloody Harlanders voted)—and reignite the class war.

The arrival of the anarchists—a roving band of hard-left protesters—was emblematic of that effort. Led by a transgender activist called Lill, who refused to give a second name and preferred to be referred to by the pronoun “they”, these efficient activists helped install a solar shower and camp kitchen, while dispensing legal advice to the miners. “They were just a big bundle of joy,” sighed Stacy Rowe, who has been camping out with her miner-husband Chris throughout the protest. Yet politics impinged.

Early this month the anarchists left in a huff after the miners refused to bar another visitor to the camp—a member of a group of activist truckers—on the basis that he wore a Trump t-shirt and espoused far-right views. Ms Rowe says she feels for them. “But I can’t tell someone how to believe politically. And we did end up eating Bernie Sanders’s pizzas, which I didn’t have a problem with.” Yet since the anarchists’ exit, coincidentally or not, the protest has petered out. Most of the miners drifted away; some to mines in other states, others to retrain as truckers, or in hope of being hired by the company seeking to reopen Blackjewel’s five local mines. Mr Raleigh insists he will stay put “until we get paid what’s owed to us”. But given the miners’ poor chance of recovering the full sum, and that the Rowes—mainstays of the camp—are about to take off in a new truck, that seems unlikely. In a few days, the bears that Mr Raleigh and his wife are sleeping in their car for fear of will probably be free to consume the camp’s leftover reserves of cookies and watermelons unmolested.

For those on the left, such as Mr Sanders, who hope to win back the white working class with economic programmes and class-infused rhetoric, this is a cautionary saga. The industries and unions that made those politics possible are too diminished. Kentucky has as many lawyers as it has miners—only about 6,000, few of whom are unionised. That helps explain why those in Harlan are still awaiting justice—even after the state governor and other powerful politicians have spoken up for them during the stand-off. The social decay that has followed that institutional retreat is another reason why the politics of economic incentive now finds little purchase among them. The population of East Kentucky is one of the unhealthiest, most addicted, prematurely aged—and otherwise unemployable—in America.

### Not a class act

Mr Trump’s popularity among blue-collar whites, in Harlan and elsewhere, is not based on his promise to rebuild their shrunken industries. Having long since given up hope of that, they were turning to the Republican Party’s quiet white identity politics long before he upped its volume. That is why hardly any miner in Harlan County appeared to blame a president who promised to “bring back coal” when most of their mines closed. Without wishing to make too much of a single incident, it was also why a row at the blockade between a trucker in a Trump t-shirt and an obliging transgender hippie was always likely to go the trucker’s way. ■



## Politics in Canada

## Dark days for Justin Trudeau

OTTAWA

**To keep his job as prime minister, he must fight on two political fronts**

THE LIBERAL PARTY supporters who lined up behind Justin Trudeau during a campaign stop in Brampton, near Toronto, were an ethnically diverse lot. But they looked universally glum. Thanks only partly to the release of several photographs showing a younger Mr Trudeau wearing blackface make-up, the man who was once his party's greatest asset has become its biggest problem.

Mr Trudeau, who came to power in 2015, is a prominent exception to the domino run of right-wing populist world leaders. At international events he promotes immigration, globalisation and feminism. At home, his government has raised taxes on the wealthy, launched a means-tested child benefit, imposed a carbon tax in provinces that do not have their own ones and legalised marijuana.

Gradually, though, Mr Trudeau has acquired a shifty reputation. In 2017 he broke his promise to reform Canada's first-past-the-post electoral system, which benefits his party. In February this year he broke the parliamentary ethics code by pressing his attorney-general to intervene in the crimi-

nal prosecution for bribery of a large Quebec engineering firm. Then the blackface pictures appeared. Mr Trudeau has told reporters that his privileged background as the son of former prime minister Pierre Elliott Trudeau left him with a blind spot about race. He is somewhat vague about when his vision improved.

To keep his job as prime minister in next month's elections, Mr Trudeau must do two things. He has to hold onto moderate voters who might be tempted by the Conservative Party, while convincing supporters of the Green Party and the left-wing New Democratic Party that he is their best hope for pushing through a progressive agenda. The Greens and the NDP are polling at about 10% and 15% respectively; thanks to the first-past-the-post system, neither stands to win many seats in parliament. But the right-left two-step is a tricky dance.

The Conservatives, who are neck-and-

neck with the Liberals in the polls, are running a good campaign. Andrew Scheer, a former speaker of the House of Commons who leads the party, has tapped into widespread unease about the cost of living. His promises, which include tax cuts for people on low incomes, tax credits for new parents and children's sports activities, and loosening mortgage rules so that more young people can buy homes, fit tidily under the Conservative campaign: "It's time for you to get ahead". He talks often about fighting for ordinary people against elites—a tiresome populist trope that works better when aimed at a political scion like Mr Trudeau.

Canada's unemployment rate was just 5.7% in August, close to a 40-year low. Average wages are growing by nearly twice the rate of inflation. Mr Trudeau repeats some version of these numbers frequently. Yet Mr Scheer's message about affordability resonates and has forced the prime minister to focus on the issue. He presented slightly altered versions of the Conservative tax cut and maternity-benefits plan within days of their announcement.

Meanwhile parts of the coalition of voters that brought Mr Trudeau to power are looking shaky. In 2015 eight out of the ten constituencies with the highest proportion of immigrants went for his party. The blackface scandal could put some immigrant voters off, although Mr Trudeau's support for high levels of immigration will weigh in his favour. Just over 321,000 permanent residents were admitted in 2018 ▶▶

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48 Bello: The battle without end

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▶ (0.9% of Canada's population) and the target for 2021 is 350,000.

Young voters, who also backed the Liberals in 2015, may be harder to retain. The environmentally minded were offended by the government's decision to buy an oil pipeline whose backer was threatening to pull out. But Mr Trudeau is trying to woo them. On September 24th his party announced that it would commit to reaching net zero carbon emissions by 2050.

On this issue, the dividing line is sharp. The Conservatives, who have a strong base in oil-rich Alberta, vow to repeal the na-

tional carbon tax of C\$20 (\$15) a tonne. Peering through his affordability lens, Mr Scheer says the tax raises the cost for ordinary people of heating their homes and driving to work. The Conservative climate-change plan, which includes investments in green technology and tax credits for homeowners who retrofit their homes, has been criticised as expensive. For what it is worth, such measures are less economically efficient than a carbon tax.

Mr Scheer has some weaknesses. He has had to rebut Liberal suggestions that he might try to restrict abortion and ban

same-sex marriage once in power. In Ontario he is tainted by association with Doug Ford, the unpopular Progressive Conservative premier who cut education and health-care services after promising not to. And the Conservatives must watch their right flank, too. The People's Party of Canada, a new outfit, opposes Mr Trudeau's "cult of diversity" and wants to slash immigration.

Yet this election, like most, is a referendum on the incumbent. And Mr Trudeau is no longer the fresh-faced celebrity that he was four years ago. Glum acceptance might be the best he can hope for. ■

## Bello The battle without end

*The struggle against corruption reaches a turning point*

**I**T GOES ON and on and on. In Mexico, Rosario Robles, a former minister, was jailed last month while under investigation regarding the siphoning off of some \$250m. Emilio Lozoya, the former boss of Pemex, the state oil company, is on the run in Europe from corruption charges. In Peru, Susana Villarán, who was the mayor of Lima, is accused of taking illicit campaign money from Odebrecht, a Brazilian construction firm. Her jail mates include Keiko Fujimori, the leader of the opposition, who faces a similar accusation. All deny wrongdoing.

Corruption has rarely before been an issue of such burning public concern in Latin America. In a survey of more than 17,000 people in 18 of the region's countries published this week by Transparency International (TI), a Berlin-based watchdog, 85% said that government corruption was "a big problem" in their country, 53% think it is getting worse and 57% said it is not being tackled well. Broadening the scope of the question to include legislatures, police, judiciaries and business as well as executives, more Latin Americans see blanket corruption than in TI's equivalent poll in Africa.

That is surprising, because corruption tends to diminish as incomes rise and Latin America is better off than Africa. There are two caveats. Perception is not always reality: free media in Latin America have relentlessly publicised corruption cases since Brazil's sprawling Lava Jato scandal, centred on Odebrecht, broke in 2014. And some countries are cleaner than others. Uruguay and Chile, for example, are seen as less corrupt than many European countries.

Elsewhere, though, corruption is systemic and hydra-headed. It involves not just stealing public money, but distorting public spending and policy prior-

ities by taking illicit money from private business. Once seen as necessary political grease, it is now recognised as a millstone. Estimates of its annual cost in Mexico vary from 2% to 10% of GDP. In a pioneering history of corruption in Peru, Alfonso Quiroz reckoned that between 1820 and 2000 it snaffled up to 40% of government spending and 3-4% of GDP growth per year.

Public anger has gone hand in hand with an unprecedented offensive against corruption in the region, which gathered strength with Lava Jato. The crackdown has been led by determined prosecutors and judges. New legal tools have been deployed, such as specialised anti-corruption investigators, plea-bargaining, preventive prison and international agreements to share financial information. This has delivered results. In Brazil, scores of politicians and businessmen are in jail. In Peru, four former presidents are under investigation (one, Alan García, committed suicide in April). In Guatemala, a former president and his vice-president are in prison.

But there have been excesses. Some

question whether preventive prison has been abused. Peru's constitutional tribunal was this week hearing a plea to release Ms Fujimori, who has been in jail for 11 months without charge. The credibility of Lava Jato has been undermined by revelations, obtained by hacking, that Sergio Moro, its main judge, worked in unethical complicity with prosecutors.

Only in part because of such excesses, the crackdown is at a turning point. A backlash has begun. "The anti-corruption struggle... is a chessboard in which the black pieces play too," notes Delia Ferreira, an Argentina lawyer who is president of TI. Brazil's supreme court recently quashed one corruption conviction because of a procedural mistake and is reviewing others. Guatemala's president has thrown out a UN-backed anti-corruption commission (though El Salvador's new leader is setting up a similar body). After a primary election pointed to the return to power of Cristina Fernández in Argentina, courts have begun to stall graft cases against her.

But the mistakes suggest that the campaign should be sharpened, not abandoned. The impunity long enjoyed by the powerful in Latin America has at least been checked in some countries. The task now is to widen and fine-tune the use of the new legal tools, and to complement them with other reforms—of campaign finance and the judiciary itself. In the short term there is a risk that public anger generates an anti-political mood. That helped contrasting populists, Jair Bolsonaro and Andrés Manuel López Obrador, to power in Brazil and Mexico. But as Mr Quiroz has pointed out, corruption is a cause as well as a consequence of weak institutions. Trying to slay it is a duty that cannot be dodged.





### Agriculture in Africa

## The underground revolution

KIBOKO AND SIRONKO

**African farmers can grow far more, but the seeds they need are hard to come by**

**A**N AIR OF Malthusian gloom hangs over smallhold farmers in Sironko, in eastern Uganda. In the old days, they say, their parents reaped plentiful harvests from fields fed with manure. Now the soil needs to be coaxed into life with chemical fertilisers they cannot afford. As the population grows, farmers squeeze onto shrinking plots of land. The weather has become erratic: the growing season might begin with a week of downpours followed by drought. The rain and the sun no longer balance, complains one farmer, Zaituni Mudondo, banging a maize cob on the ground.

So there is something unusual about Ruth Akello, who lives just down the road. Her house is sturdier than the rest, with a solar panel outside. She is also building another home in a nearby town. Asked about maize—Uganda’s most ubiquitous crop, which accounts for about 20% of people’s overall calorie intake—she pulls out a record book and phones her husband to check the numbers. The couple have grown 100 bags this year (about ten tonnes) and sold almost all of it. Her neighbours use old-fashioned methods of farming, she ex-

plains. “But me, I use the modern way.”

One crucial difference between Ms Akello and her neighbours is the seed she uses. Whereas most smallholders keep some of the previous year’s crop to plant, as they have done for generations, she buys improved hybrid seeds. Her plot hints at the huge difference that modern seeds can make to the lives of Africa’s hundreds of millions of farmers. It also raises a question: why don’t more people plant them?

The green revolution began with seeds. By the early 1960s scientists had created dwarf varieties of rice and wheat, which put more of their energy into edible bits and did not topple over when fed with fertiliser. Agricultural productivity duly took off in Asia and Latin America, making

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everybody richer. Douglas Gollin, an economist at Oxford University, and others estimated last year that a 10% increase in the share of land planted with high-yielding crops by the year 2000 is associated with 10-15% growth in GDP per head. Maize, which is easier to hybridise than many crops, has steadily become more productive in countries such as America and China (see chart on next page).

Sub-Saharan Africa is decades behind. Some of its poorest countries, such as Chad and the Democratic Republic of Congo, scarcely have seed markets. Uganda has several seed producers and a president, Yoweri Museveni, who exhorts the *wananchi* (“common people”) to adopt modern farming practices. But it has a long way to go. Surveys five years ago revealed that only 21% of maize farmers and 15% of all crop farmers in the country used hybrid seeds.

Uganda’s wealthier neighbour, Kenya, ought to be doing much better. Hybrid maize seeds have been widely available there since the 1970s, and about three-quarters of farmers use them, according to the Tegemeo Institute in Nairobi, which conducts surveys. Kenya is also a leader in research. On a 200-hectare farm south-east of Nairobi, CIMMYT, an international institute, tests new strains in deliberately tough conditions. Thanks to a technique known as doubled haploid breeding, it can churn out new varieties quickly.

Yet Kenya is no Eden either. As its population has grown, crop farmers have moved onto parched soils that used to be seen as ▶▶

fit only for cattle ranching. Climate change may also be having an impact: three out of the past five years have been poor for maize. Farmers are now being assailed by fall armyworm, a hungry caterpillar. Gradual improvements in farming methods have not been enough to overcome these challenges. Like Uganda, Kenya awaits a proper green revolution.

In Kenya and many African countries supposedly high-yielding seeds do not always work. Emilia Tjernstrom of the University of Wisconsin in America has tested seeds bought from local dealers. On average only 76% of the seeds germinated and in some samples none did. Fake hybrid seed is widespread, says Mary Wangeci, an agricultural supplier in Machakos, near Nairobi. Clued-up farmers are gradually learning to scan the bar codes on seed packets with their phones to see if the product is genuine. Unfortunately, the neediest farmers are not so savvy.

And the commercial seeds on the market do not always produce bountiful harvests. Because scientists are always working on maize, new hybrids are generally better than old ones. Plants also need to be appropriate for local conditions, which vary more in Africa than in other parts of the world. But Kenya's bestselling maize seed, known as 614, was released in 1986. And although it grows well in the rainy highlands, it fares poorly in the hotter, drier parts of the country.

Maize 614 is produced by a state-controlled outfit, the Kenya Seed Company, which dominates the market. It is cheaper than seeds produced by rival companies, partly because the government holds down its price. Launching a competitor is difficult for other reasons. Getting approval is expensive and takes five years—"if you're really sharp, four years", says Saleem Esmael, who runs the Western Seed Company. The stringent trials that the government insists upon are supposed to protect small farmers, but the result is old, inferior seeds on the market. Stephen Mugo of CIMMYT compares the system to a bicycle with

100 padlocks—safe, but not useful.

Uganda has a less cumbersome approval process and a more open seed market. But its government still finds ways to meddle unhelpfully. In 2013 Mr Museveni launched "Operation Wealth Creation", which involved troops distributing seeds, fruit trees and cows. By 2017 private companies were selling half of their maize seed to the government. It typically takes three seasons, or 18 months, to ramp up production; reputable growers could not keep up with the sudden surge in demand. Seeds reached farmers late, or grew badly. The government then cut its purchases just as suddenly as it had started them. Compa-

nies were left with warehouses of seed they could not sell.

Under tight security at CIMMYT's research station in Kiboko, which includes a man who shoots inquisitive monkeys with a catapult, some unusual maize plants are growing. Created by multinational companies, these are genetically modified to resist fall armyworm. So far, the trial has been a success: the modified plants have hardly been touched, while nearby control plants are shredded. But farmers are unlikely to be able to plant the new maize soon, since both Kenya and Uganda ban genetically modified crops. Few sights are more frustrating. ■

## Natty Nigerians

# The tailors of Lagos

LAGOS

How tech can help the stylish avoid sartorial sorrow

"RICH AND poor, everyone has a tailor here," says Olajire Omikunle, a couturier for Nigeria's powerful. So great is the appeal of a well-cut outfit in Lagos, Nigeria's commercial centre, that roadside stitchers rove the streets armed with their sewing machines and clicking their large scissors to drum up customers.

David Peterside, a local entrepreneur, hopes to capitalise on this sartorial obsession with a new app that is being dubbed an "Uber for tailors". Fashion Map allows natty Nigerians to find a suitmaker at the press of a button. It may be a perfect fit for Africa's most populous country. Nigeria has a fast-growing base of smartphone users and "over 100,000 registered tailors", says Otunba Wasiu Taiwo of the Nigeria Union of Tailors. "We are still counting."

In down-at-heel areas, like Oshodi, entire streets are filled with them, often just an elbow's distance from one another. They sew traditional caftan suits made of stiff Chinese-made wax print fabrics for 5,000 naira (\$14). Poorer customers often take out loans to buy one. Well-heeled Nigerians can head to Mr Omikunle's store, Magnum Stitches, in the upmarket area of Lekki. He makes *agbada* robes and *sokoto* trousers of soft Swiss-made cotton for 250,000 naira. But many customers have tales of tailor despair, from bespoke clothes that are paid for but never delivered, to sleeves falling off at the seams.

"Finding a tailor you trust is hard," says Mr Omikunle. Fashion Map hopes to help by allowing its 3,000 customers to rate the 1,500 tailors using the app. The idea, says Mr Peterside, is "to build trust between two strangers, someone who makes good clothes and someone who



Avoiding a stitch-up

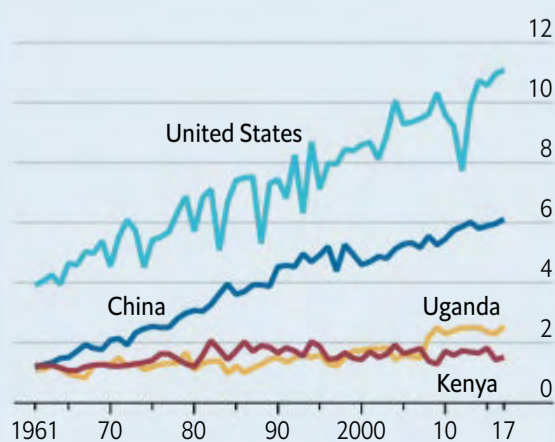
wants good clothes".

Quality wrinkles aside, the future of Nigerian tailoring looks good. Because people love made-to-measure clothes it is hard for local e-commerce giants, such as Jumia and Konga, to penetrate the market with their ready-made garb. Demand is being fuelled by an economic recovery: the IMF reckons GDP will expand by 2.3% this year, its fastest pace since Nigeria slumped into recession in 2016. Euromonitor, a research group, forecasts that the country's \$1.2bn apparel industry will grow by 25% a year over the next four years.

The boom may tempt some tailors to cut corners with their cloth, making it even more important for Nigerians to take their measure. "When you find a good tailor in Africa, you better keep it as if it was gold," Mr Omikunle says.

## Not in the bag yet

Maize yield, tonnes per hectare



Source: FAO

## Ivory Coast

## A delicate peace

ABIDJAN

**The economy is on the mend, but politics are still wobbly**

FEW WEST AFRICAN countries excite investors quite as much as Ivory Coast. Its economy, which is forecast to expand by more than 7% this year and next, is among the fastest growing in Africa. Its efforts to cut red tape and make it easier to start a company or get loans have won praise from private firms and multilateral institutions, such as the IMF and World Bank—which has bumped it up by 25 places on its “ease of doing business” index since 2015. On September 23rd Standard Chartered, a bank, ranked it top of its list of 20 countries that have the most potential to trade.

Much of the credit for this economic boom goes to Alassane Ouattara, a former economist who has been president since 2011. During his term the government has sold stakes in state-owned companies and invested in new roads and other infrastructure. But economic reform has not been matched by political change, prompting worries ahead of a presidential election next year that the country may slip back into conflict. A disputed election in 2010 led to a dreadful year-long civil war.

The first concern is over Mr Ouattara, who may blot his copybook by trying to run for a third term. This would seem to be in breach of the two-term limit that was written into a new constitution in 2016. But Mr Ouattara said in an interview with a French magazine last year that his first terms do not count and that he could stand for another two, starting next year. Such a move would infuriate the opposition and almost certainly lead to violent unrest, says Achille Comoe of Planet Peace, an Ivorian NGO.

One trick may be to change the constitution to bar people over the age of 75 from running. Although this would bar Mr Ouattara, it would also disqualify his main political rivals, Henri Konan Bédié and Laurent Gbagbo, both former presidents. Mr Ouattara abolished the age limit in 2016, perhaps already then with a view to running again. (Even if he does not run, he may still try to tilt the contest in favour of his ruling RHDP party.)

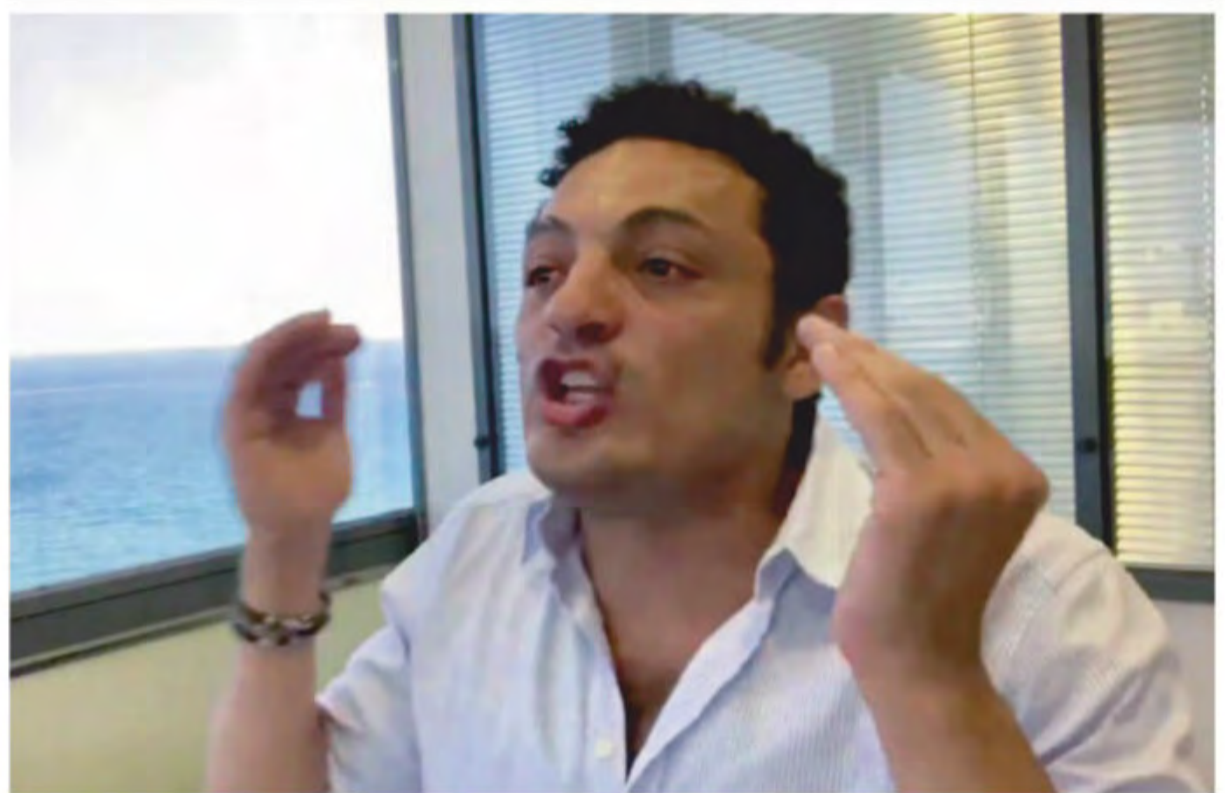
Few ordinary folk would be unhappy to see Mr Gbagbo disqualified: it was his re-

fusal to concede defeat after he lost the election in 2010 that sparked the civil war that led to the deaths of about 3,000 people. His political career ought surely to have ended in 2011, when Mr Ouattara’s forces winked him out of his bunker in Abidjan, the country’s commercial capital, or when he was arrested later that year to face charges of war crimes before the International Criminal Court (ICC). Yet he still influences Ivorian politics. His acquittal by the ICC earlier this year raised fears that he might return to run again, reigniting conflict.

That risk was averted for the time being on September 16th, when the ICC’s chief prosecutor appealed against his acquittal.

But the long shadow cast by the war still makes many Ivorians nervous, particularly when they look at the state of the army. Although rebels and loyalists were integrated, the army is deeply divided and prone to mutiny. In 2017 some 8,400 disgruntled soldiers—about a third of the total—took over the country’s second city, Bouaké, demanding \$8,000 and a house each.

Ivorians strongly endorse the two-term limit for presidents and more than a quarter think their representatives are corrupt. The economy may be booming, but democracy is in a slump. “Politics is still the easiest way to make money,” shrugs André Braud-Mensah, a businessman. ■



## Protests in Egypt

## Sisi’s pain in Spain

CAIRO

**A former actor living abroad is stirring up Egyptians**

THE EGYPTIAN police seemed caught off-guard by the protests on September 20th. That was understandable, given that almost no one had dared protest in years, and it was a Friday night, the start of the football season, when arch-rivals Zamalek and Al Ahly were playing each other. The authorities did not expect Egyptians to heed the call of Muhammad Ali, a disgruntled Egyptian businessman and former actor (pictured) who urged his followers on YouTube to take to the streets. But in Cairo and other cities, hundreds of people did.

In a country of 100m citizens, a few hundred people venting their frustrations with the army-backed regime led by Abdel-Fattah al-Sisi would not have filled a subway

station. This was not a repeat of 2011, when millions of Egyptians turned out to topple Hosni Mubarak, the former strongman. But it was an act of both desperation and bravery. Mr Sisi tolerates no dissent. A lone man in Cairo who dared publicly oppose a sham constitutional referendum in March was jailed for months. Small as they were, the protests are significant, both for what caused them and what they say about Egypt’s moribund politics.

For weeks Mr Ali has captivated the country with a series of videos posted on YouTube. Speaking in gravelly, colloquial Arabic, he drags on a cigarette and insults Mr Sisi as a “midget” and a “disgrace”. Claiming to have made a small fortune as a ▶▶

**Correction:** In an article on September 21st (“Au revoir to arms”) we incorrectly said that on September 9th Riek Machar returned to South Sudan for the first time since fleeing in 2016. In fact, he had returned before. We also said that a peace deal in South Sudan was brokered by Sudan. It was actually brokered by Ethiopia. Sorry.



▶ contractor working on projects overseen by the army and thus to have knowledge of these matters, he accuses the president of wasting millions of dollars on a luxury hotel, presidential palaces and other lavish projects. He now lives in what he calls self-imposed exile in Spain.

Though Mr Ali has offered no hard evidence, his claims resonate with Egyptians, who quip that his videos are better than anything on Netflix. The army has expanded its economic empire since Mr Sisi took power in a coup in 2013. Generals have cornered the cement market, opened private schools and stepped in to produce baby formula after a nationwide shortage. Meanwhile, despite solid macroeconomic numbers, ordinary people struggle to survive. The official poverty rate has climbed five points since 2015, to 33%. Wages have not kept pace with inflation, and an IMF-backed reform programme has brought higher taxes and lower subsidies. “[Mr Sisi] lives in palaces while we eat from the trash,” complained one woman in a widely shared video from the night of the protests.

Mr Sisi admits to building new palaces, but says they are not for him—a curious defence for a man who plans to rule until at least 2030. He blames the unrest on the Muslim Brotherhood, a banned Islamist group on which the regime blames everything from potato shortages to protests. This convinces nobody, though even Mr Ali’s fans wonder about his sudden rise and why a man who once worked with the army abruptly turned on it. Some muse, also implausibly, that he is backed by a rogue faction within the regime eager to cast off an increasingly unpopular president.

Mr Ali has called for more protests on September 27th. Investors are not happy. Fixed-income traders have been drawn to Egypt’s high interest rates and veneer of authoritarian stability. Since the protests, bond prices and currency futures have both weakened. The stockmarket has fallen sharply. But it is hard to say if the protests will continue, especially now that the police are prepared. Hundreds of people have been arrested. A lawyer who represents other detainees was plucked from the courthouse steps and tossed into a van by police. Egypt’s shrivelled opposition has not endorsed the call for protests, in part because Mr Ali is such an enigma.

There is real frustration with Mr Sisi, among both the public and the elite. What keeps him in power is not just brutality. It is the hollowing-out of Egypt’s political and civil life, a process that began more than half a century ago, when the army and the Brotherhood began a ruinous rivalry. Mr Sisi has made things worse by crushing even the mildest of critics. A chain-smoking actor in Spain has momentarily, unexpectedly, tapped into public anger. But there is no one in Egypt to harness it. ■

## America and Syria

# A cry for attention

## A new study slams America for neglecting Syria

AT THE END of last year President Donald Trump explained that he was done with Syria. He boasted of defeating the jihadists of Islamic State (IS), “my only reason for being there”. Though he later reversed his decision to withdraw all 2,000 American troops from Syria, the conflict remains low on his list of priorities. On September 24th, the Syria Study Group, a 12-member panel appointed by Congress, published a report explaining why Syria was not done with Mr Trump.

Bashar al-Assad, Syria’s dictator, has all but defeated a rebel insurgency, with Russian and Iranian help. But his control beyond Damascus is “tenuous”, and “crime and warlordism are rampant”, says the panel. His ongoing push into Idlib province, a jihadist stronghold, will cause a flood of refugees, compounding what is already one of the worst refugee crises since the second world war.

Even IS is merely down, not out. The report warns that ramshackle prisons holding some 10,000 jihadists could provide the wellspring of a new insurgency. Idlib itself has the largest concentration of foreign fighters since Afghanistan in the 1990s. The Syrian Democratic Forces, a largely Kurdish militia that serves as America’s principal local ally against IS, has been “heavy-handed” in the Arab areas it controls. In turn, disaffected Arabs might become easy fodder for jihadist recruiters.

Amid this chaos, Russia and Iran have prospered. Russia has used its influence in Syria to position itself as a “power centre” in the Middle East. Iran has en-

trenched itself in Syria, courting local tribes, building schools and buying land around Damascus. This worries Israel, which has bombed Iranian positions in Syria. Mara Karlin, an expert at the Brookings Institution and a study-group member, warns of the possibility of a “spectacular Levantine spillover”.

America, by contrast, has been AWOL. Its aid for north-eastern Syria, where it has troops, has dried up. Mr Trump’s erratic policies and obvious lack of interest in the conflict have also caused American allies to hedge their bets. Jordan and Israel have deepened ties with Russia. The United Arab Emirates has reopened its embassy in Damascus.

America’s mission in Syria is often lumped together with the “forever wars” in Iraq and Afghanistan. This is unfair, says the report: “The Syria case offers a different—and far less costly—model.” The panel urges America to maintain its small footprint in Syria in order to support the areas liberated from IS, keep the jihadists at bay and increase pressure on Mr Assad and his backers to reach a political settlement.

America has leverage over Mr Assad: two-thirds of Syria’s hydrocarbons lie outside the regime’s control, mostly in areas where America is the dominant force. But using that leverage requires American leaders to pay more attention to Syria. The study group offers a stark reason why they should: it is Syria—not Iran, or Yemen, or Palestine—that is the “leading source of instability in the Middle East”.



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# Poor America



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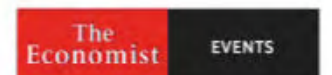


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## Poor America

**Government programmes have done more to help poor Americans than is widely acknowledged. The best way to build on them is to focus on children, says Idrees Kahloon**

**E**LDERLY RESIDENTS of Inez, the tiny seat of Martin County, Kentucky, deep in the heart of Appalachia, can still vividly remember the day the president came to town. Fifty-five years ago, while stooping on a porch, Lyndon Johnson spoke at length to Tom Fletcher (pictured), a white labourer with no job, little education and eight children. “I have called for a national war on poverty,” Johnson announced immediately afterwards. “Our objective: total victory.” That declaration transformed Fletcher and Martin County into the unwitting faces of the nation’s battle, often to the chagrin of local residents who resented the frequent pilgrimages of journalists and photographers. The story never changed much: Fletcher continued to draw disability cheques for decades and never became self-sufficient before his death in 2004. His family continued to struggle with addiction and incarceration.

Today Martin County remains deeply poor—30% of residents live below the official poverty line (an income of less than \$25,750 a year for a family of four). Infrastructure is shoddy. The roads up the stunning forested mountains that once thundered with the extraction of coal now lie quiet, cracked to the point of corrugation. Problems with pollution because of leaky pipes mean that some parts of the county are without running water for days. “Our water comes out orange, blue and with dirt chunks in it,” says BarbiAnn Maynard, a resident agitating for repairs. She and her family have not drunk the water from their taps since 2000; it is suitable only for flushing toilets. Some residents gather drinking water from lo-

cal springs or collect rainwater in inflatable paddling pools.

The ongoing poverty is not for lack of intervention. The federal government has spent trillions of dollars over the past 55 years. Programmes have helped many. But they also remain fixated on the problems of the past, largely the elderly and the working poor, leaving behind non-working adults and children. As a result, America does a worse job than its peers of helping the needy of today. By the official poverty measure, there were 40m poor Americans in 2017, or 12% of the population. This threshold is extremely low: for a family of four, it amounts to \$17.64 per person per day. About 18.5m people have only half that amount and are mired in deep poverty. Children are the likeliest age group to experience poverty—there are nearly 13m of them today, or 17.5% of all American children.

In international comparisons, that makes America a true outlier. When assessed on poverty relative to other countries (the share of families making less than 50% of the national median income after taxes and transfers), America is among the worst-performing in the OECD club of mostly rich countries (see chart on next page). Despite its higher level of income, that is not because it starts with a very large share of poor people before supports kick in—it is just that the safety net does not do as much work as elsewhere. On this relative-poverty scale, more than a fifth of American children remain poor after government benefits, compared with 3.6% of Finnish children. ▶

► Child poverty often leads to adult poverty and all of its problems: psychological distress, exposure to crime and lost productivity. The National Academies of Sciences, Engineering and Medicine, in a new 600-page study on the subject, estimate that child poverty costs America between \$800bn and \$1.1trn annually because of lost earnings and greater chances of criminality and poor health.

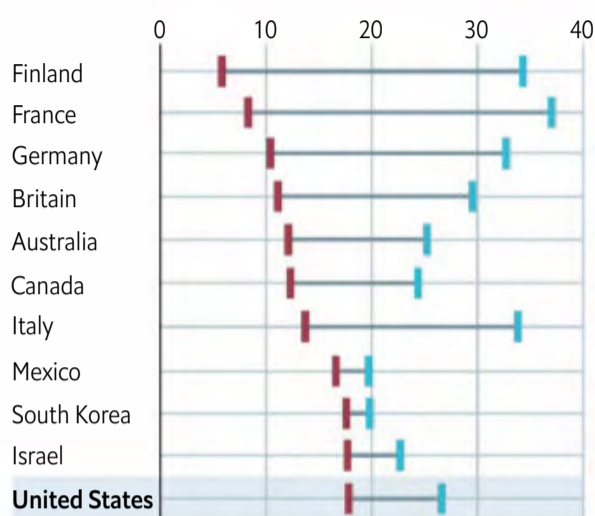
How can one of the richest countries in the world have so many poor people, and what can be done about it? This special report will aim to answer these questions. It will show how poverty is shifting geographically from cities to suburbs and examine the continuing influence of race. It will consider philanthropy and private enterprise. And it will conclude by arguing that heftier anti-poverty spending on children is the best way to make a difference.

For those who disparage the trillions of dollars spent on safety-net programmes as a well-intentioned but quixotic endeavour, the case of Martin County would seem a clear cautionary tale. “We waged a war on poverty, and poverty won,” Ronald Reagan lamented while president. That fatalism remains alive and well in American politics—from both the right, which often sees poverty as an inescapable problem of character and choice that is impervious to government intervention, and much of the left, which increasingly sees it as an inescapable consequence of predatory capitalism. Both strains of pessimism are simplistic and incorrect. Now, as then, solutions do not adhere neatly to liberal or conservative agendas. The left has, in the past, overemphasised the ability of the government to achieve change. The right, mistrustful of state intervention and too convinced that a free market will automatically bring universal well-being, has done little creative thinking.

Because of this, the politics of poverty have become stuck. America is bogged down in the interminable exercise of separating the deserving poor from the undeserving. Treating the poor as re-

### Helping hand

Poverty rate\* before and after taxes and transfers  
Selected OECD countries, 2016, %



Source: OECD

\*Less than 50% of median income

sponsible for their predicament is callous; treating them as victims of social structures and bad circumstances robs them of agency and dignity. Fair-minded people can find themselves anywhere in between. Moreover, settling the debate over personal responsibility is also impossible, at least to the satisfaction of the most committed ideologues. A person who is convicted of a violent felony—a blameworthy choice—could face years of penury, but their childhood in a poor, segregated neighbourhood with little support from school or family—unlucky circumstances—are likely to have contributed to that action.

The partisan debate is focused on whether able-bodied, working-age adults should receive cash handouts. Yet such adults are a minority of the poor population today. Only a small number of them report unemployment or voluntary non-participation in the labour force.

Straightforward cash welfare for non-working mothers—the battleground of the Clinton-era debate—is now only a small part of the safety net compared with in-kind programmes (like food stamps or Medicaid, the government health-insurance programme for the poor) and tax credits that boost the wages of the working poor. The main conduits of direct cash are disability payments and Social Security for the elderly which, by definition, do not go to able-bodied adults.

Some see the continued existence of deprivation in America as a reason to shrink the safety net, believing it to have been ineffective. Yet poverty persists today not because of the failure of the net, but in spite of its widespread impact. The correct way to evaluate the success of anti-poverty programmes is counterfactually. The question is not whether poverty still exists, but how much worse it would be without government action. Answering that is made harder by the arcane way in which America measures poverty. The official level relies on pre-tax income, disregarding aid from safety-net programmes and differences in living expenses, making improvements difficult to register.

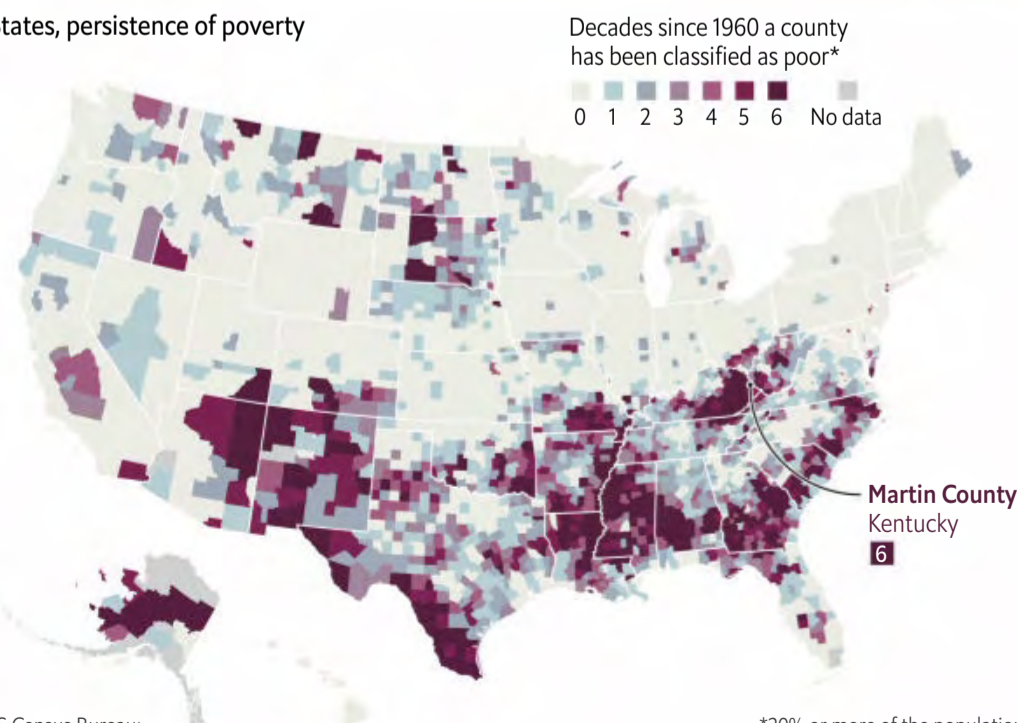
When a better tool is used—the supplemental poverty measurement (SPM), which takes these deficiencies into account—the effect of the expanded safety net becomes clear (see box on next page). In 1967 safety-net taxes and transfers barely dented poverty: 26.4% of Americans were poor before, and 25% remained poor after. Without a safety net, nearly the same proportion of Americans, 24.6%, would be poor today as were 50 years ago.

Yet because of greatly expanded anti-poverty programmes, such as food stamps and the earned-income tax credit, which tops up the wages of low-paid Americans, only 13.9% are poor after taxes and transfers. The elderly were once among the poorest groups—and still would be were it not for the old-age cash and health benefits provided by Social Security and the Medicare programme. Now, they do about as well as working-age adults.

Eastern Kentucky exemplifies the evolving nature of poverty in America ►

### Nickels and dimes

United States, persistence of poverty



Sources: US Census Bureau; IPUMS; *The Economist*

\*20% or more of the population below the official poverty line. Sixth decade to 2017

▶ since Johnson declared his war. Compared with the rest of the country, poverty there remains high. But in absolute terms, the share of poor residents has dropped by nearly half since 1960. When John F. Kennedy campaigned for the presidency in West Virginia, he was horrified not by the state of the roads but by the emaciated people. Out-and-out hunger is much rarer today. However, new social pathologies have sprung up: obesity, joblessness, disability and addiction.

Each new social problem compounds the others. Individual choice and social structure co-mingle, yielding a Gordian knot of pathology difficult for policymakers to cut. The national economy has evolved to one that prizes education, leaving low-skilled workers behind. Deindustrialisation and incarceration have particularly decimated the prospects for black men.

Poor families of all races have become increasingly unstable as

a result. Rates of non-marriage and births out of wedlock have risen among this population, leading to many more single-mother families—41% of children in such households live below the poverty line. Drug use, particularly of opioids, has grown exponentially, fracturing families even more. “I became a mother at 72 again,” says Debbie Crum, who has lived nearly all her life in Martin County. “My great-nephew and his girlfriend had the baby. But they were hooked on drugs. The family had to go all the way back to me before they could find someone who could take care of the baby, who could pass the background check and drug test.” Ms Crum is a loving carer, but not all children are so lucky.

The Bureau of Economic Analysis publishes detailed data on sources of income, public and private. In some counties of Kentucky, federal transfers—through food stamps and disability and old-age benefits—account for 36% of all income. Without them, ▶

## Measure for measure

*The official way America calculates poverty is deeply flawed*

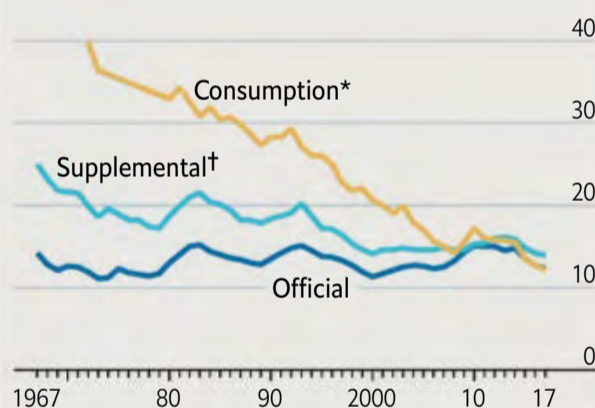
FOR LYNDON JOHNSON to wage a successful war on poverty, he first needed to define it. The brainy work was done by Mollie Orshansky, a statistician for the Social Security Administration, who developed the first federal poverty line in 1963. Ms Orshansky’s method was plausible enough for the times. From a survey conducted in 1955, she calculated that families would typically spend a third of their household budgets on food. So she computed the cost of bare-essentials food plans for families of varying sizes and multiplied these thresholds by a factor of three. These numbers, after simple annual adjustments for inflation, are the modern poverty lines used by federal government.

Times have changed. Globalisation and advances in agriculture mean that modern households now spend only one-eighth of their incomes on food. Better data are available. They show that housing and child care—not food—are the biggest constraints on the household budgets of poor people. The majority of American renters who make less than \$30,000 now spend more than half of their income on housing. Among poor families with children, those with such severe rent burdens tend to reduce the amounts spent on other necessities like food, transport and health care. And deciding who counts as poor is not merely a matter of statistical arcana. Eligibility for safety-net programmes, which disburse trillions of dollars, is determined by the federal poverty level. Its deficiencies also fuel the perception that safety-net programmes have had no positive effect.

America’s antiquated poverty line presents several problems. The most

### Poor show

United States, poverty rate, %



Sources: Census Bureau; Centre on Poverty & Social Policy; [povertymeasure.org](http://povertymeasure.org)

\*Anchored to 2015 poverty threshold  
†Anchored to 2012 poverty threshold, after taxes and transfers

significant is that income is calculated before taxes and transfers, meaning that the poverty-reducing effects of the earned-income tax credit (\$63bn annually) or food stamps (\$68bn) is ignored. Progress against poverty goes undercounted as a result. There are two commonly cited measures of American poverty more sophisticated than the official one—the supplemental poverty measure (SPM), which takes benefits and cost of living into account, and the consumption poverty measure, based on expenditure instead of income, developed by two economists, Bruce Meyer and James Sullivan. Both of them show sharp and sustained declines over the past half-century upon accounting for safety-net programmes (see chart).

Another problem is that the poverty line is set far too low. Most developed countries do not use only measures of absolute poverty, as America does. They also employ relative poverty measures. In

Britain, for instance, families with incomes below 60% of median income are classified as poor. In America the median income for a family of four in 2017 was \$94,876—yet the poverty threshold was just \$24,600, or 26% of median income. Because income growth has outstripped inflation, the divergence has increased over time. In 1975, for example, the poverty level was as much as 40% of the median income for a family of four. Government programmes try to take this inadequacy into account, albeit inconsistently.

A third issue is that there is no accounting for variation in the cost of living—the poverty line in San Francisco is the same as in rural Louisiana. That scrambles the perception of rich states and poor states. A favourite saying in poor states like Kentucky or Alabama is “Thank God for Mississippi”—the state that finishes last on poverty indices. Yet when measures that take the cost of living into account are used, like the SPM, it turns out that California is at the bottom of the rankings. Despite the progressive state’s more generous safety net, the out-of-control housing costs push more people into destitution than anywhere else.

This deficiency in the official poverty statistics is exploited by some right-wing politicians. Paul Ryan, a Republican former Speaker of the House, justified his proposal in 2016 for modifying safety-net programmes—largely by adding work requirements—by noting that “Americans are no better off today than they were before the war on poverty began in 1964.” That might be right by the official statistics but, when poverty is properly measured, it is plain wrong.

► crises like joblessness and drug addiction would be far worse. Hospitals, schools and local government are often the largest providers of stable jobs. Medicaid, which was expanded in Kentucky through Obamacare, pays for substance-abuse treatment in parts of America hit hardest by the opioid epidemic.

The existence of poverty does not undermine the American dream, but the persistence of it does. The safety net looks stuck in time, even though the problem of poverty has evolved. And now there is a new danger. Because of rising income inequality and housing costs, poverty is moving out of cities and into suburbs, where it is less visible. Poor white and Hispanic Americans are much more likely to live in such places. Combating this looming problem is not at the heart of any political agenda. That is unfortunate and self-defeating. A wealth of economic and sociological studies show that poor children who grow up in districts of concentrated poverty have profoundly worse life outcomes—their incomes sag, their health deteriorates and their family lives turn dysfunctional. The job of the safety net is to arrest this cycle. If this generation of poor children is to do better than the one before, the net will need to become stronger still. ■

### Geographical changes

## Outer-city poverty

**The most profound shift in American poverty is that it is beginning to concentrate in the suburbs**

FOR MANY, the stereotypical image of American poverty still resembles the infamous Cabrini-Green Homes, a housing estate completed in 1962 near the heart of Chicago. It became overrun by gangs, drugs and violence. City police, in effect, ceded control. This popular conception of poverty remains largely urban, black and ghettoised. But the stereotype is outdated. The Cabrini-Green estate, which once housed 15,000 people, is no more. The city finished demolishing it in 2011. The new neighbourhood is peaceful, with low-slung apartments, a new school, playgrounds and green space aplenty, alongside wine shops and cross-fit gyms for the millennial crowd. In 1981 Jane Byrne, then the city's mayor, moved into a Cabrini-Green building on 1160 North Sedgwick Street to draw attention to high crime rates—only to turn tail and flee a mere three weeks later. Today that address is an attractive brick building overlooking an upmarket bakery and a Starbucks coffee shop.

To see the changing geography of American poverty, go instead to Harvey, a small suburban town of 26,000 just 20 miles (32 km) south of Chicago. Despite its proximity to a large city, median household income is an abysmal \$24,343. After mismanagement and missed bond payments, the city's finances are in freefall. One in four flats now sits vacant. Nearly 36% of its residents are classified as poor, higher than in many of the poorest counties in eastern Kentucky and the rest of Appalachia. Though Harvey was never rich, that is a drastic increase from the 22% poverty rate in 2000. And as politicians, journalists and sociologists continue to focus attention on the well-known urban ghettos on the city's south

and west sides, few are taking note of the worsening plight of places like Harvey or nearby Dolton, where concentrated poverty is now just as bad.

After the demographic changes over the past decade, there are now more poor people in Chicago's southern suburbs than in the city itself. The same is true for the rest of America: a poor person is now much likelier to be found in the suburbs than in the big cities. According to the census taken in 2000, 10.5m, or 31%, of all poor people lived in the suburbs of America's largest cities. The most recent estimates from the Census Bureau show that the number of poor people living in those suburbs has exploded to 16.3m, an increase of 56%. Unlike urban poverty, which has long been associated with destitute blacks, suburban poverty is more pronounced among poor whites and Hispanics.

The dire fortunes of Harvey illustrate the urgent problem of modern poverty in America. It is not growing nationwide, but it is evolving into something more virulent. The poor are increasingly clustered together outside newly thriving central cities, and thus out of sight. Being poor is difficult enough, but opportunities dwindle if you live in a district of concentrated poverty (where 20% of neighbours live below the poverty line) or of extreme poverty (where 40% fall below the threshold). Where you grow up affects the trajectory of your life. Rising housing costs and income inequality have made the problem worse. The number of Americans living in concentrated poverty has increased by 57% since 2000, according to Elizabeth Kneebone of the University of California, Berkeley. Because of the growth of concentrated poverty in suburbs and small cities, a majority of poor Americans now live in these distressed neighbourhoods.

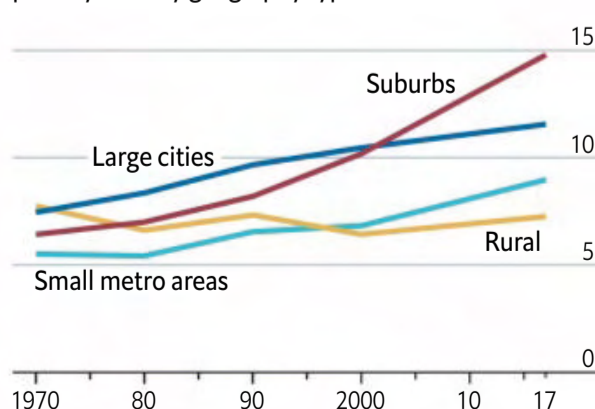
Plot the rate of almost any social dysfunction—addiction, crime, infant mortality, joblessness or mental illness—and you invariably reproduce the same map. The cumulative effect of these overlapping disadvantages is worse than any individual one; concentrated poverty is more damaging than mere poverty. The clearest evidence comes from three economists—Raj Chetty, Nathaniel Hendren and Lawrence Katz of Harvard University—who analysed a randomised experiment in which some poor families were given housing vouchers to move out of impoverished districts into lower-poverty ones. For children who moved to better neighbourhoods while young, the researchers found massive effects on an array of long-term life outcomes. College attendance rates increased by 16.5%; annual incomes as adults were 31% larger; women were 26% less likely to become single mothers.

Often, the effect crops up in unexpected ways. A study of black children in Chicago by Rob Sampson, Patrick Sharkey and Stephen Raudenbush, three sociologists, estimated the negative effect on vocabulary and verbal ability from growing up in the city's most troubled areas as equivalent to missing a year of school. Mr Sharkey has found that the harms accumulate. Two consecutive generations in poor neighbourhoods cause the measured intelligence of children to drop by eight or nine IQ points. For a child of average intelligence, the drop is equivalent to moving from the 50th percentile to the 28th.

A more corrosive consequence of concentrated poverty, though harder to measure, is on feelings of hopelessness and dependency. Poverty is more than just physical deprivation. It is also psychologically debilitating—breeding constant anxiety about the near future, and inuring people to daily traumas, of hunger or violence or addiction. The temporary cogni- ►►

### Moving to the outskirts

United States, people below the federal poverty level by geography type, m



Source: Elizabeth Kneebone analysis of US Census and American Community Survey data



**Sinkin' down in Youngstown**

► tive load for adults is daunting: scientists have measured it as equivalent to shaving off 13 IQ points.

Outside cities, poverty is more difficult to deal with because social services are harder to provide. Big cities—even quite poor ones such as Baltimore and Detroit—are still able to operate the large bureaucracies needed to help the poor. As a result, urban counties spend ten times as much per person on support for poor residents as suburban ones, according to Scott Allard of the University of Washington. The small towns that struggle are less able to help their residents. Their finances are in bad shape. They have barely enough money to cover essential services like policing and street-sweeping, let alone operate job-training programmes or compete for complicated federal grants. Public transport is rare outside big cities, and the costs of maintaining a car are too high for many.

Take Cleveland, Ohio, one of America's poorest cities. Though nearby Detroit is often thought of as even poorer, half the children in Cleveland live in poverty, the highest rate of any large city in the country. In the city's central district, where public housing for poor, black residents is still concentrated, the child-poverty rates are estimated at 80%. "It's the same recurring story," says Shanda Davis, a pastor and local activist in Cleveland's Tremont neighbourhood. "We have children who are displaced, mothers who aren't making enough, fathers who are walking away from their own home life."

Ms Davis, a kindly, soft-spoken woman, endured many of the horrors of a poor and unstable upbringing: an alcoholic mother, molestation while still a girl, dropping out of high school, getting pregnant while young and domestic violence afterwards. Somehow she pulled through. Her humble operation now dispenses food, clothes and love to locals. "We pull out of our cabinets whatever we have. The scripture says to give what you have, and it becomes more than enough," she says. Despite her efforts, the troubles remain. Drug-dealing is common in the neighbourhood.

At least there are still some institutions that can help. The Sisters of Charity Health System, which runs a nearby hospital, has also set up a foundation hoping to break the cycle of intergenerational poverty in the neighbourhood. Like Pittsburgh, the city of Cleveland has the cultural and financial assets to get itself out of a rut; it has a world-class hospital, a major research university, an international airport and a few corporate headquarters.

Things are worse in small cities nearby. Youngstown, once a booming centre of steel production with a peak population of 170,000, is now a hollowed-out town of 65,000. Bruce Springsteen

wrote a song about its decline. The poverty rate is 37%, higher than in Cleveland. Reviving it will be hard. "Unlike Cleveland, Youngstown has no assets. It's experienced extreme depopulation. There weren't any elite institutions there," says Aaron Renn of the Manhattan Institute, a think-tank.

### Half the children in Cleveland live in poverty

As in most distressed places in America, some residents still work to turn things around. Ian Beniston runs the Youngstown Neighbourhood Development Corporation with a small staff and volunteers. They clear rubbish from lawns, rehabilitate abandoned properties and pester slumlords. "It's basic stuff," he admits. "But the most radical thing we can do as young people is stay in cities like this."

For Democrats and Republicans alike, priorities have shifted away from saving persistently poor places in favour of more middle-class concerns like income inequality and lack of social mobility. President Donald Trump invokes the poverty in Baltimore only as a cudgel against his political opponents. This makes little sense, however, since ignoring the compounded disadvantages of poverty condemns today's poor children to becoming poor adults. And it is all made more difficult by the problems of race. ■



## Race

## Black and white

### Poverty continues to affect people of colour most

THE RAW sewage from Pamela Rush's toilet travels through a straight plastic pipe directly into the backyard of her dilapidated mobile home. It smells badly in hot weather. Mosquitoes swarm and the children are forbidden from playing there. But when it rains, the stuff pools and it is unavoidable. Because the soil in Lowndes County, Alabama, where Ms Rush lives, sits atop a relatively impermeable base of limestone, a proper public sanitation system for the sparsely populated place would be expensive. Sanitation is left to private systems, which poor residents like Ms Rush cannot afford. Foul-smelling flooded lawns are a common sight. They are also the reason that hookworm—a parasitic disease transmitted largely by walking barefoot on open sewage—has been detected among the residents there. It is a disease most often encountered in developing countries. Yet decades after it was thought to be eradicated, it can be found in America, again.

Lowndes County is part of the Black Belt—the swathe of land named for its fertile topsoil which produced vast amounts of cotton on the back of slave labour and, later, sharecropping, and where emancipated black workers farmed rented land. Despite all the wealth that was extracted from the fields, those who remain there today have little; the median household income is a mere \$29,785 and the official poverty rate is 30%. Three-quarters of residents are black, and they are nearly eight times as likely to be poor as whites in the county. Across America, black people remain disproportionately poor. More than 20% live in poverty, twice the rate of whites. After a moderate amount of progress was erased by the Great Recession, median black household wealth nationwide is one-tenth that of white households, just as it was 50 years ago.

The mobile house in which Ms Rush lives today has mouldy cupboards, an unusable bathtub and holes plugged with many ingenious patches. Her income is meagre—\$770 a month in disability benefit, \$129 for each of her two children in child support. Her ten-year-old daughter has health problems that require a visit to a specialist in Birmingham 100 miles away every three months—a difficult journey without a car.

While on a tour of the region, Philip Alston, the UN special rapporteur on extreme poverty and human rights, remarked that he had never seen such conditions in the rich world. But it is seldom a concern of candidates for political office. Since the days of Lyndon Johnson and Robert Kennedy, poverty alleviation has hardly been at the centre of either party's political campaigns. Part of that is because of the brutal maths of vote-getting. As income declines, so does the propensity to turn out at the ballot box.

The problem is more than black and white, however. About 22% of Hispanics live in poverty. Yet, though many of them are poor when they immigrate to America, successive generations are likely to be less so. A study of tax-returns data showed that poor Hispanics, especially men, have much higher mobility than poor blacks. Asians, too, have a better record of moving up. Though pockets of poverty remain—among those born in Bangladesh and Cambodia, for example—rates are the lowest of any race, at 11.9%. Native Americans fare the worst. On some reservations, the estimated poverty rate is 52%, and 60% among children. In one county in South Dakota, life expectancy is lower than in Sudan.

Working out what issues are caused by history and what are a



*No American dream*

result of current policies also contributes to the analytical paralysis of policymakers. The yawning gap in poverty levels of blacks and whites partly results from the centuries of discrimination faced by black Americans before the civil-rights era. Macroeconomic shifts unrelated to race, like deindustrialisation, have also damaged black families and livelihoods.

### Different prisms

Some modern conservatives are putting forward solutions to poverty that go beyond public-funding cuts and private charity. These still tend to be studiously race-neutral. Oren Cass of the Manhattan Institute has pitched more substantial wage subsidies as the heart of a new conservative anti-poverty agenda. After reforms in 1996, the safety net has already become more centred on “workfare” (such as the earned-income tax credit) than welfare. But many Republicans continue to see welfare as a poverty trap wrought from overreliance on the safety net, however patchy.

Looking at the same issues, progressives within the Democratic Party arrive at a very different set of answers. The failure is not personal, but of public policy, because of slavery, mass incarceration or redlining that denied mortgages to residents of minority neighbourhoods. This has led to the more left-wing members of the party to call for reparations to black people.

Yet reparations are also a political third rail. Even today's crop of Democratic presidential candidates, who have been drifting left in almost every other respect, have shied away from endorsing the idea, though some have pledged to appoint a committee to study the issue. The clearest explanation for this comes from Martin Gilens of Princeton University, author of “Why Americans Hate Welfare”. It found that overly racialised attitudes—the idea that white money was going to non-white people—prevented wide- ▶

**In one county in South Dakota, life expectancy is lower than in Sudan**



► spread support of means-tested programmes. “In large measure, Americans hate welfare because they view it as a programme that rewards the undeserving poor,” Mr Gilens writes.

Implicit benefits for minorities are difficult enough to create and maintain. An explicitly race-based programme such as reparations would attract even more condemnation—and one sure to fail without a Democratic president and supermajorities in Congress. In all likelihood, the reduction of racial disparities in poverty will have to be done through race-neutral means. As policymakers grapple with how to do that, enterprise and philanthropy are trying to fill the gap. ■

### Non-public options

## Other ways out

### How much can enterprise and philanthropy do?

**H**ARLEM IS A neighbourhood in upper Manhattan that was once a byword for poverty, crime and urban failure. It was a place where, as recently as 1980, black men had a lower life expectancy than in Bangladesh. Large parts of it look different today. Life expectancy has soared, and the neighbourhood has improved dramatically. Although a considerable share of children there—35%—remain poor, their life chances still look much better than a generation earlier.

That is in no small part because of the efforts of the Harlem Children’s Zone (HCZ), a non-profit group which has “adopted 100 blocks” and set itself the goal of breaking the intergenerational chain of poverty by providing good parenting advice, healthy food

and education. New parents who attend the zone’s Baby College learn about proper nutrition and reading habits for their infants. Older children can attend free, full-day pre-kindergarten and some go on to attend the HCZ network of charter schools. Their impressive initial results are seen as a national model.

The zone serves 14,000 children and 14,000 adults at a cost of just \$4,600 per person per year (raised from a mix of public and private sources). That is not a large sum of money, points out Anne Williams-Isom, the zone’s boss. “We spend \$167,000 on an inmate in Rikers [jail]. We find the money to scale that and we find the money to replicate all of that,” she adds. “I’m telling you if you gave me half of that for a third-grader, I could do what I needed to do to give them and their family what they needed.”

### Every little helps

Philanthropy such as this helpfully complements public efforts, filling holes in the American safety net. Two major anti-poverty programmes for new mothers—the Supplemental Nutrition Assistance Programme (SNAP), better known as food stamps, and Women, Infants and Children (WIC)—are in-kind services that do not cover the cost of nappies, for example. Many nurseries will not accept care of young children unless parents provide them, says Ann Marie Mathis, who runs a charity called Twice as Nice Mother & Child that distributes nappies Illinois.

This gap is plugged by charities like hers, which distributes 350,000 nappies a year. Food banks, ranging from factory-style operations to small outfits run out of a church cupboard, remain in high demand as a supplement to food-stamps benefits, which average \$1.40 per meal. In 2017, data from the Census Bureau’s annual survey on food security showed that at least 15.9m Americans reported using food banks that year—an increase of 65% since 2002. Because only people with low incomes are asked, actual use may be higher. The largest food-bank network in the country, Feeding America, estimates that it helps 46m people at least once a year.

Philanthropic efforts also tap into the quintessentially American tendency, noted 200 years ago by Alexis de Tocqueville, a French writer, of people to provide for their neighbours through private associations and charity. However, charity alone cannot substitute for a public safety net. In 2018, all of American charitable giving—not just to anti-poverty organisations—amounted to \$428bn. This is no small amount, but adds up to just two-thirds of the current cost of Medicaid, the health-insurance programme for the poor. Add in other large programmes—Medicare, Social Security, the earned-income tax credit, food stamps and housing assistance—and the sum looks small. It could be argued that public profligacy has crowded out private philanthropy. But, at around 2.1% of GDP, charitable giving has stayed roughly the same for 40 years.

Though the problem of poverty in America provokes deep disagreement, nearly every thinker on the subject agrees that the ideal exit is stable, well-paid employment and not permanent dependence on public support. Working-age adults are a bare majority of the poor population because of the over-representation of children. Of those, about one-fifth are disabled. Among the able-bodied, a majority already work or attend school full time—the problem is that they work too few hours or their wages are too low. For this group, the next step is not securing a job, but a better one.

For low-skilled workers with few educational qualifications, even in current tight labour-market conditions, chances for advancement are limited. Another problem is that persistently poor places also have weak private sectors that lack such jobs. In the main town of Pine Ridge, a Native American reservation in South Dakota—by some measures, the poorest place in the country—the private sector hardly extends beyond a few, cash-only petrol stations. The few good jobs that do exist are often publicly funded—in local government offices, schoolhouses, hospitals or prisons. ►

► Policymakers have long wanted to use public dollars to jumpstart private investment in poor areas, but the results of such programmes have consistently disappointed. Most follow-up assessments for “enterprise zones”, created in the 1980s to provide tax credits for businesses in high-poverty areas, have found no employment growth or poverty reduction, yet higher house prices. “Opportunity zones”, the latest iteration of a place-based policy signed into law by the Trump administration, seem destined for a similar fate. There is little oversight over which zones qualify for tax credits, and no plan to track results systematically. Planned projects include a gastro-tourist spot in Portland, Maine, and the construction of a glassy new office building in Miami. The anti-poverty results of such investments may be minimal.

Federally funded retraining programmes for displaced workers also seem to have achieved little, though some economists argue that is because they have not been properly financed. Federal programmes paid for by the Workforce Investment Act, in place from 1998 to 2014, seemed actually to reduce the earnings of displaced adult workers. Its predecessor, the Job Training Partnership Act, had similarly weak returns. The current version, the Workforce Innovation and Opportunity Act, has even less funding and is the same basic model. The mixed results reflect a general trend in poverty research: as people get older, it becomes harder to discern which policies are best. It also becomes more expensive to fix.

Private efforts—whether philanthropy or more effective retraining—are most helpful when they show innovative approaches to poverty reduction that can then be scaled up with public dollars. This can help sidestep one problem of relying on charity alone: well-endowed foundations focusing on the plight of cities, not small towns. While Barack Obama was president, the Department of Education began a “Promise Neighbourhood” programme that sought to replicate HCZ-style zones in places like eastern Kentucky. But measuring the ultimate success of these initiatives requires decades of tracking. In the meantime, poverty prevention among children is almost certainly cheaper than rehabilitation. ■



Social mobility, Harlem-style

## Children

# The kids are not alright

Poverty has long-lasting, destructive consequences for children

**E**VEN CRITICS who think that poverty results from a defective character concede that poor children, all 13m of them in America today, are not to blame for their plight. But as soon as they reach the age of 18, many of those children will become poor adults who will then be unceremoniously deemed culpable for their predicament. By the official statistics, nearly one in six American children is poor. By the SPM, which takes benefits and cost of living into account, things look only a bit better: just over one in six is poor. They are concentrated in clusters across every state in America. They are found in depressed areas like Cleveland, where half of children live below the federal poverty line, rural South Dakota and central Appalachia. They are also found among immense prosperity—the children living in the Bronx or of the service workers who drive three hours each way to do menial jobs in San Francisco.

This American tragedy is an ignored one. Poor children neither vote nor hire lobbyists. It is also morally senseless, punishing children for the sins or misfortunes of their parents. It is economically pointless, too. Poor children who grow up to be poor adults have not just reduced incomes, but shorter lives and a higher risk of criminality. The safety net, although important, does less to blunt poverty in children than in adults.

It was not always this way. When Michael Harrington wrote “The Other America” in 1962—a seminal study which helped spark Lyndon Johnson’s war on poverty—the elderly, hobbled by medical and housing costs, were the poorest age group in the country. “Fifty per cent of the elderly exist below minimum standards of decency,” he wrote. Today, the problem has been inverted. With the advent of universal programmes like Medicare, the health-insurance scheme for the elderly, and Social Security, the public-pension programme, there is no age group better served. According to the SPM, 48% of elderly Americans would have been poor without the safety net. After taxes and transfers, that figure is down to 14%.

What America has done for its elderly, it can also do for its children, with less complication and cost. The primary lever is reorienting public safety-net spending around poor children. It is important to spend so that poor adults do not go hungry, homeless or untreated for illness. But while it is hard for a person reliant on food stamps at the age of 40 to achieve self-sufficiency, opportunities still abound for the poor child receiving free lunches at school.

## Everyone learns together

The second imperative is for integration. Increasingly, poor children are segregated, living and attending school with others like them. A bifurcated society is more than just damaging democratically. Living in concentrated poverty worsens outcomes in future health, criminality, employment and happiness.

Severely reducing or eliminating child poverty through the simplest means imaginable—unrestricted cash transfers—can seem starry-eyed until one studies the details. David Grusky of Stanford University says that the state of California, which has the highest share of poor people after accounting for taxes, transfers and cost of living, could end deep child poverty with targeted cash transfers that amount to a mere \$2.8bn per year. This is “insane”, he adds. It is a quarter of the sum the state spends on prisons.

Targeted anti-poverty programmes in America usually attract a ►►

▶ backlash from voters who think the money goes to other people's children. But even a universal child credit—a small amount of cash given for each child each month—“probably comes close to cutting child poverty in half just on its own,” says Jane Waldfogel, a professor of social work at Columbia University. Most of America's peer countries already have a universal benefit scheme. After Canada fully implemented its programme, which offers higher benefits to poorer families, the number of children living in poverty fell by a third in just two years. If a similar programme—giving \$400 per month for all young children and \$340 for older ones—were implemented in America, it would indeed reduce child poverty by more than half. It would cost around \$300bn a year, less than the grandiose proposals pitched in the Democratic presidential primary, such as a universal basic income and free college.

A slightly less generous proposal along these lines has already been made by Michael Bennet and Sherrod Brown, two Democratic senators, though public enthusiasm for it has been muted. The likely benefits are not mere conjecture. When economists examine the long-term outcomes for children who received more generous benefits, whether in food assistance, tax credits or access to health insurance, they find big long-term improvements in health, as well as higher university attendance and higher incomes.

But it is not enough to deal with poverty atomistically—to reduce individual suffering through a more robust safety net. It must also be dealt with spatially and collectively, meaning that it must be deconcentrated. Although housing benefits are allocated sporadically in America (only a quarter of those who qualify actually receive them because the benefit is not an entitlement, and funds are limited), there is little encouragement for families to move towards good neighbourhoods. Moving everyone to opportunity is not a scalable solution, but could happen more often.

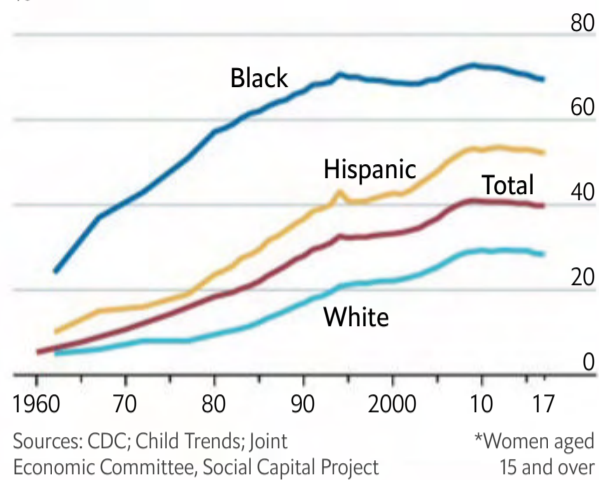
The same applies to schools. Rucker Johnson of the University of California, Berkeley, has produced compelling research showing clear benefits for black children who attended integrated schools, not segregated ones. Five years in desegregated schools boosted incomes by 30% later on in life; exposure to integrated elementary schools reduces the chance of incarceration by 22 percentage points. Unfortunately, the national trends in income segregation between the rich and the poor are heading in the opposite direction—increasing 15% from 1990 to 2010, and 40% within large school districts. The same is true of where American families live.

The idea that safety-net programmes function as a poverty trap—or, in the words of Paul Ryan, a former House Speaker, as “a hammock that lulls able-bodied people to lives of dependency and complacency”—remains. Additional income will incentivise people to work less. But it is hard to imagine rational people giving up work for the meagre sums offered for disability (\$1,234 per month on average), food stamps (\$126 per month) and Medicaid (which cannot be cashed out).

There are important ways in which liberals, particularly vocal white urban ones, also misunderstand the path to alleviating poverty. One cause of school segregation within American metropolitan areas is the intentional gerrymandering caused by school-district lines. This elicits only muted fury from the people who often preach the virtues of diversity in other arenas. “Neighbourhood schools” drive neighbourhood effects—both the beneficial ones of posh parts and the harmful ones experienced in America's growing ghettos and barrios. The same people are strong critics of char-

### Out of wedlock

United States, share of births to unmarried mothers\*  
%



ter schools, which are publicly funded but privately run, for allegedly destabilising traditional state schools (and their associated teachers' unions). For generations, poor, minority children have received inadequate education from their segregated traditional school districts. Although charter schools have similar results when evaluated nationally, they perform much better in the kind of struggling urban districts—such as New Orleans, Newark and Boston—where there are more poor children who need help. Among dedicated Democratic voters, 58% of blacks and 52% of Hispanics—the groups who benefit most from them—support charters, against just 26% of whites.

There is also a longstanding reluctance among liberals to discuss the impact of family structure on child poverty. Much of this stems from the explosive reception to the Moynihan report—a study published in 1965 that sought to explain the roots of black poverty by analysing out-of-wedlock births—and the stigmatising argument that it seemed to imply. When Daniel Patrick Moynihan wrote his report, around a quarter of black children were born out of wedlock. Today that share is 70% for black children, more than 50% of Hispanic children and almost 30% for whites—all concentrated among poorly educated mothers. The official poverty rate for the children of single mothers is 39%, compared with 8% for those living with married parents.

The reluctance to acknowledge that children in stable, two-parent households do better may seem understandable. Such statistics can be marshalled to stigmatise single mothers, and to then argue for benefit cuts. Some suggest that marriage promotion is a worthy avenue, but it is difficult to imagine bureaucrats successfully steering social norms. What should matter for policymakers is not attempting to apportion blame, but starting to chart a course out of the problem. ■

### The future

## Winning the war

### There is much to do, but progress is possible

AS A POOR American it is easy to feel ignored. “We’re forgotten and because we’re poor, people think we’re unimportant,” laments BarbiAnn Maynard, the woman agitating for clean water in eastern Kentucky, as she sits in her favourite contemplation spot—a boulder atop a reclaimed coal mine that offers a spectacular vista of the mountains. Before Rosazlia Grillier became an activist for COFI, a community group campaigning for school reform in Chicago, she lived in a poor area, with little hope. She had young children, not much income and was sick with cancer. “I had literally given up hope on anything. It was really a deep depression,” she says. Both women are steel-willed and committed to improving their communities. But even they are not immune to the creeping spells of despondency that poverty brings—a psychological dimension to suffering that is not captured by the statistics.

Disrupting the intergenerational transmission of poverty re- ▶▶



*Two worlds collide*

►quires a programme of serious public policy, which first requires public attention. This does not exist at present in America. That is partially because the poor do not vote. But much more it is because the debate gets bogged down in the futile attempt to separate the deserving poor from the undeserving. According to the American National Election Studies, voters on all sides feel more warmly towards “poor people” than towards “people on welfare”.

The consequences of inaction are clear. Poverty, unfortunately, is an inheritable condition. For some, like the black descendants of slaves in the South and those in the forcibly segregated inner cities, the ancestry can be drawn to previous government policies. The same is true of Native Americans. Others, like recently immigrated Hispanics and rural whites, are left behind because the economy rewards high levels of education and clusters in cities. Given these trends, the poor children of every race are likely to become the next generation of poor adults. The national shame of such penury will endure.

This is not just the fault of the federal government and the unwillingness of conservatives to believe that government intervention can help. The driving force behind income segregation and the worsening concentration of poverty is rising house prices, which are pushing the poor together, concentrating disadvantage in the suburbs and small towns least equipped to deal with it. The problem is most acute in America’s most thriving cities—the ones governed by unabashed liberals—driven by poor housing supply blocked by local control over zoning.

Rent can consume as much as half the income of the poorest residents. The housing assistance that might buffer some of these trends is underfunded relative to need. Competition drives rents up, particularly around good schools. Homelessness—perhaps the most extreme form of poverty—is a symptom, surging in high-cost cities. In 2018 New York estimated its homeless population to be over 79,000, or 48% more than in 2010. It spends \$3.2bn on homeless services each year. California now accounts for one in four homeless Americans.

What is needed is recognition that the anti-poverty pro-

grammes have indeed helped the poor as intended—a point that is obscured by the inadequacies of the official poverty accounting. Unencumbered by such fatalism, a new war on poverty would be most effective if centred on children. That is partly because of politics, since aiding poor children avoids the paralysing debate over culpability. But it is also a question of simple cost-benefit analysis. Earlier intervention boosts earnings (and thus tax revenue) and reduces spending on prisons and anti-poverty programmes. Research by Nathaniel Hendren and Ben Sprung-Keyser of Harvard University, assessing the return on public investment in various government schemes, finds that the benefits of programmes targeting poor children yield returns many times higher than those targeting poor adults. Simple measures like a universal cash allowance for children and enabling poor families to move to opportunity would be relatively inexpensive national goals.

The war on poverty has improved countless American lives, but there is much that still needs to be done. Amid the other controversies in a nation sorely divided, many are struggling to live out their own version of the American Dream because of forces beyond their control. It may need another half-century before victory can be declared in the war on poverty begun by Lyndon Johnson, but that is surely no reason to stop trying. ■

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

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## Japan's economy

# Stocks and scares

### The last time the consumption tax rose, the economy stumbled

EARLIER THIS year the organisers of the Rugby World Cup, now taking place in Japan, held a briefing for bar and restaurant owners in Oita, a city on the island of Kyushu that will host five matches. As an example of what to expect, the briefing included a photo of a South Africa fan holding five jugs of beer in one hand. Rugby fans are a thirsty lot, the audience were warned. At the 2007 World Cup in France, beer ran short in Marseille when South Africa played Fiji. And something similar had happened four years earlier when Ireland played in Adelaide. The message to bar owners was clear: stock up.

An influx of boozy rugby fans is not the only reason for retailers to top up their inventories this month. They must also prepare for quick-footed customers hoping to sidestep the onrushing taxman. On October 1st (after Scotland plays Samoa and before France meets America) Japan will raise its consumption tax from 8% to 10%. The tax falls on almost everything the Japanese buy, including gadgets, cars, new homes, magazines, restaurant meals and booze.

Once in effect, the 10% rate will leave people with less money to spend. Until then, it gives consumers a powerful reason to buy what they can sooner rather than later.

No tax is popular, but Japan's consumption tax has an unusually fraught history. The cabinet first approved such a tax in 1979, but abandoned the idea after a public outcry. A similar bill was introduced in 1987, then dropped for a similar reason. After a gentle 3% tax was at last imposed in 1989, the rate was raised to 5% in 1997, contributing to a nasty downturn. The economy also swooned in 2014 when the rate was increased to 8% by Shinzo Abe's new

government. Mr Abe had promised to raise the tax again to 10% in 2015, in an attempt to improve the government's finances. But the increase was postponed until 2017 and then put off again until this year, even as net public debt climbed past 150% of GDP. Japan's vaunted reputation for punctuality, much admired by visitors to the World Cup, seems not to apply to fiscal policy.

Despite the repeated delays, it is still not clear the economy is ready for the higher rate. Exports have fallen for nine months in a row, thanks partly to America's trade war with China and Japan's own tussle with South Korea. Exports to China fell by 12% in August, compared with a year earlier, and sales to South Korea fell by 9%. (Japan did strike a trade deal with America this week—see finance section.) Business investment is largely flat, because the expansion plans of service industries, such as hotels, retail and logistics, have been cancelled out by nervous manufacturers. That has left consumers to keep the economy expanding. They accounted for 100% of the economy's growth in the second quarter. It therefore seems an inopportune moment to extract more yen from their pockets.

The tax increase in 2014 precipitated a dramatic boom and bust in home-building and consumption (especially purchases of cars, furniture and appliances). Nothing similarly spectacular has appeared in the data so far this year (see chart on next page). Home-builders have been busy starting work on new owner-occupied ▶

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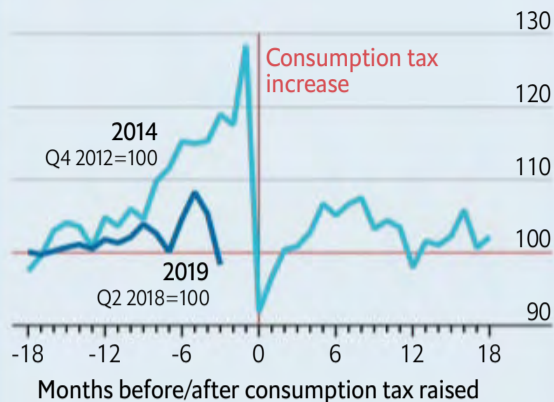
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### An encouraging torpor

Japan, consumer-durables sales index  
Real terms



Sources: Bank of Japan; *The Economist*

► houses (which incur the lower 8% tax rate if the sales contract was signed before April). That has boosted the demand for air-conditioners, according to the Bank of Japan (BOJ), the central bank. But they see few other signs of pre-emptive purchases. Of course, consumers may be waiting until the last minute to buy some smaller-ticket items (including beer).

The absence of a boom does not necessarily mean no bust will follow. But the government hopes the impact this year will be much less than it was five years ago. The tax increase is smaller (two percentage points, not three). And unlike today, households five years ago expected a second increase (from 8% to 10%) to follow hard on the heels of the first (from 5% to 8%). Their purchases in early 2014 were an attempt to avoid both. They stocked up on cars, furniture and other durable items they would not need to replace for years.

The higher tax will also be offset by other measures. The government will spend part of its increased revenue on child care and pensions. It will cut a separate tax on car emissions. And with the government's help, thousands of small retailers will offer rebates or "reward points" worth up to 5% of a product's price, to customers who make cashless purchases by card or phone.

The government will also punctuate the smooth uniformity of the consumption tax with a number of exemptions. The increased rate will not apply to food (except meals served in restaurants), beverages (except alcohol) and newspapers (excluding those, like this one, published less than twice a week). That will make it easier for people to read reports of the economic fallout over a green tea and a takeaway.

In principle, any damage to the economy could also prompt an offsetting response from the BOJ. In a speech this week, Haruhiko Kuroda, the bank's governor, predicted that the tax's impact would be "marginal" compared with the previous increase. But he was also fairly relaxed about that increase prior to the fact. "Even assuming two consumption-tax hikes...Ja-

### Prisons in the Philippines

## Breaking into jail

An administrative error reveals the fear Filipinos have of the police

WHEN RODRIGO DUTERTE threatens criminals, they pay attention. After all, since becoming president of the Philippines three years ago he has championed an all-out war on drugs that has claimed between 5,000 and 20,000 lives (the numbers are disputed). So when Mr Duterte warned a big group of convicts freed from prison by mistake that, if they failed to turn themselves back in, the police would return them to their cells dead or alive, 2,221 duly surrendered. The odd thing was, the prisons authority said that only 1,914 had been released in error. Although part of the discrepancy may have been because of further mistakes on the part of the aptly named Bureau of Corrections, part, at least, was because of the terror with which Filipinos now regard the police.

Behind the turreted gateway of the National Penitentiary, south of Manila, lurk the likes of Antonio Sanchez, a

notorious rapist and murderer. Mr Sanchez had believed he could get away with his crimes because he was mayor of a provincial town, but in 1993 a judge imprisoned him for 40 years. News this year that Mr Sanchez might be freed early for good behaviour caused an uproar. It then emerged that hundreds of other prisoners had already been freed early for good behaviour, even though the severity of their crimes should have made them ineligible. Mr Duterte dismissed the director-general of the Bureau of Corrections, called for a special prosecutor to investigate the debacle and instructed the convicts in question to report back to prison.

Predictably, the list of mistakenly freed prisoners released by the bureau omitted some names that should have been on it and included some prisoners who had been let go on legitimate grounds. To be on the safe side, it seems, some 300 people who weren't on the bureau's list surrendered.

The newly re-incarcerated convicts will be wondering what sort of regime now awaits them. The dismissed director-general of the Bureau of Corrections, Nicanor Faeldon, was himself a former jailbird, having joined an unsuccessful mutiny when he was in the army. He even escaped twice. The new director-general is Gerald Bantag, who faces homicide charges related to the deaths of ten prisoners in a grenade blast in his office when he was warden of a municipal jail. The police say Mr Bantag was negligent in allowing weapons into the prison. Mr Duterte describes him as "professional". It may be that prison is no safer for the nervous convicts than life on the run.



pan's economy will continue to grow above its potential growth rate as a trend," he said in 2014. In fact, the economy's growth was about 1.5 percentage points below potential for the next six months.

If Mr Kuroda is unpleasantly surprised again, the bank could cut short-term interest rates even further below zero (its benchmark rate has been -0.1% for almost four years) or expand the scope of its asset purchases. But that would be unpopular both with bankers, who worry about their margins, and with households, who worry about their savings. It might also be ineffective. As Goushi Kataoka, a dovish member of the BOJ's policy board, has pointed

out, the central bank has repeatedly cut its outlook for inflation without easing policy accordingly. That suggests the board's hawks, who think easing is unwarranted, have been joined by defeatist doves, who think further easing would be warranted but doubt it would be effective.

Their defeatism is easy to understand. Inflation was originally scheduled to climb to 2% in 2015. That timetable has been revised six times since. Now the bank merely says that inflation will increase to 2% "gradually". Japan's vaunted reputation for punctuality does not apply to monetary policy either. It's enough to drive a central banker to drink. ■

## Sinophobia in Kazakhstan

## Truncheons at the ready

ALMATY

The president promises to allow public protests, just not yet

KAZAKHSTAN'S NEW president, Kassym-Jomart Tokayev, has tried to sound like a refreshing change after decades of autocracy. Early this month, in his first state-of-the-nation speech, he said his "listening state" would show greater tolerance of dissent. Days earlier, citizens had witnessed the astonishing sight of pro-democracy marches proceeding without arrests. But other protests, including a recent spate targeting the country's giant neighbour and benefactor, China, have elicited a very different response. In Kazakhstan old political habits die hard.

The protesters want an end to what they regard as Chinese economic domination of their country. The demonstrations, the most recent of which took place on September 21st in the country's two biggest cities, Almaty and Nur-Sultan, as well as several other towns, have involved only a few hundred people. But relations with China, with which Kazakhstan shares a 1,800-km border, are highly sensitive. Kazakhstan has benefited enormously from China's global infrastructure-building scheme, the Belt and Road Initiative (BRI). There are 55 Chinese projects under way in the country, worth \$27.5bn. Kazakhstan's government takes great pride in this. It likes to describe the country as the "buckle" of BRI's belt.

Many Kazakhs do not share this enthusiasm. They are leery of China's economic influence: it controls more than one-fifth of Kazakhstan's oil output and is expanding into other areas, including manufacturing, construction and chemicals. They worry about the opacity of China's projects, the possibility that Kazakhstan will not be able to repay related loans and the use of imported Chinese labour. Anti-China sentiment across Central Asia has been fuelled by the mass incarceration of Turkic Muslim minorities, including Chinese-born Kazakhs, in Xinjiang, a Chinese province bordering Kazakhstan (see China section). China describes these, implausibly, as "vocational training centres" that help to prevent Islamist extremism.

During the latest anti-China protests the Kazakh authorities detained 100 protesters, including a man whose prosthetic leg became detached as he wrestled with police—a scene that caused outrage on social media. Most were freed without charge but nine were given short prison sentences. They join 29 others who were jailed for taking part in anti-China protests earlier this month.

Officials have declared the rallies in violation of stringent public-assembly laws (which Mr Tokayev has pledged to reform). But the authorities stated straightforwardly that their main reason for clamping down was the encouragement the protests have received from Mukhtar Ablyazov, a Kazakh oligarch based in France. He makes no secret of his desire to stoke unrest in pursuit of "regime change". The government, in turn, has banned Mr Ablyazov's Democratic Choice of Kazakhstan movement and treats supporters as criminals.

Mr Ablyazov has plenty of grievances to tap into. Since the resignation in March of Nursultan Nazarbayev, who had ruled the country since 1989, there have been sporadic protests against everything from the stage-managed election that resulted in victory for Mr Tokayev (Mr Nazarbayev's choice as successor), to the renaming of the capital, Astana, as Nur-Sultan in honour of the ex-president, who is thought to still call the shots from behind the scenes. In all, some 4,500 protesters have been detained since Mr Tokayev became president—not a very impressive tally for a supposed reformer. ■

## Immigration to South Korea

## Peninsular draw

GIMHAE

An influx of foreigners is spreading beyond the capital

PROVINCIAL TOWNS in South Korea, like their counterparts in other countries, are not known for a great variety of culinary offerings. Lunch options are typically stew, noodles or barbecue. Not so in Gimhae, a sprawling city of 550,000 in the far south of the country. A stroll around the old market area takes visitors past Thai supermarkets, Vietnamese coffee shops and Burmese, Cambodian and Indonesian restaurants. An Uzbek eatery offers fragrant meat dumplings along with a generous helping of post-Soviet kitsch in the form of glittering gold lamé tablecloths and spangled voile curtains.

The diversity is a recent development, says Chun Jung-hee, who runs the local government's support centre for foreign workers. "Until about ten years ago there was only this one Chinese restaurant." The change is the result of government policy. South Korea, which got rich by exporting its products all over the world, has recently begun to import people.

Starting in the mid-2000s, the government struck agreements with several South-East and Central Asian countries, making it easier for their citizens to apply for work visas of strictly limited duration to take up low-skilled jobs. Until then, most immigrants arrived in the country either illegally or through international-marriage schemes designed to find wives for farm workers and other manual labourers, since South Korean women were shunning harsh lives in the countryside. Both groups suffer exploitation and abuse. Partly as a result, many local authorities no longer support the marriage schemes.

The aim of the new work permits was not just to reduce labour shortages for me- ▶▶



Freedom of assembly is subject to some restrictions



nial work, but also to ensure that those who arrived had certain rights and protections, says Ms Chun. Over the past decade the number of foreigners living in the country has nearly doubled, from 1.2m in 2009 to 2.4m in 2018, according to official data, out of a total population of 52m.

Most of the new arrivals move to Seoul or to its suburbs in Gyeonggi, the province next door. The capital, where most of those on professional visas end up, has acquired many of the trappings of a globalised metropolis over the past few years, with lots of high-end coffee shops, bars illuminated by unshaded filament light bulbs and co-working spaces that would not be out of place in London, New York or Copenhagen.

South Gyeongsang, the province in which Gimhae is located, has the highest concentration of foreign residents outside the capital region. In Gimhae just over 5% of the local population is not South Korean, much more than in other provincial towns. Most of the foreign labourers work for the many small suppliers to the local carmaking and shipbuilding industries.

The cosmopolitan smorgasbord of the market area is not the only sign of this influx. Much of the space in the city centre not filled by exotic restaurants is occupied by shops offering international phone plans and remittances. Unusually, many of them are open on Sundays to cater to foreign workers on their day off.

On a weekday morning South Korean passers-by are vastly outnumbered by those from other parts of Asia, a rarity in a country that is usually striking for its homogeneity. A local shopkeeper says nearly all of his customers are foreigners. He has staff from several countries to offer sales advice in multiple languages. The town also boasts a Filipino football team and a book club run by immigrant brides, which meets in Ms Chun's support centre every weekend. Many of the members have also found work as interpreters at the centre, helping those who arrive after them to navigate their new home.

In a glitzy new shopping centre just five minutes' drive from the old market, however, the only hint of foreign influence is a branch of Starbucks, a global coffee chain. Throughout the city, there is little integration between the new arrivals and residents of longer standing. According to Ms Chun, most locals were initially scared of the influx of immigrants. Now many of them volunteer at the support centre, although the way she describes their work suggests a certain paternalism. "There's this choir of old ladies, they treat the workers at the centre like their own children."

Even the unusual restaurants do not attract many Korean customers. "Some younger Koreans come because they are curious about the food, but not many," says a 36-year-old Filipina barista in a coffee

shop near the market. Her social circle consists mainly of other immigrant women, even though her husband is Korean. She arrived in Gimhae 12 years ago and says the best thing about living in the town is being able to work and to send her children to local schools. She says her children, a girl and a boy, are sweet and obedient and thoroughly integrated. "They love playing games on their phones and go to cram school and *taekwondo* until the evening, just like other South Korean kids." ■

### Malaysia's youth vote

## It's the economy, bodoh!

KUALA LUMPUR

**Young Malaysians have big economic worries—and growing political clout**

SITTING IN THE buzzing plaza at the heart of Sunway University near Kuala Lumpur, Malaysia's capital, representatives from online job platforms await students. Many are youngsters themselves, ready to dispense friendly advice about buffing up cvs. So far the documents passed to them have been uninspiring. One reckons candidates would fare better if their schooling had taught them more practical skills, such as how to craft a job application. Employers are also looking for fluent English-speakers, he notes.

Malaysian youths are in need of such advice. The overall unemployment rate is around 3%, but among those aged 15-24 it is over 10%. Young people frequently relocate in the hunt for a job. "The number one ex-

port of Perak isn't pomelos or rice, it's talent," laments Howard Lee, a young politician from the relatively sleepy, fast-ageing state. The Muslim Youth Movement of Malaysia estimates that perhaps half of youngsters in rural states leave for the bright lights of big cities.

Moving is not a guarantee of employment, however. Even those who relocate are often short of work. According to the central bank, more than 173,000 holders of tertiary qualifications entered the workforce between 2010 and 2017. But fewer than 99,000 high-skilled jobs were created during the same period. A sales representative for a telemarketing firm in Kuala Lumpur, who moved there from Perak, complains that he has to work as a driver for a ride-hailing platform at weekends to make ends meet.

The good news for young Malaysians is that their political clout is growing. In July the government lowered the voting age from 21 to 18. That change, combined with the relative youthfulness of Malaysia's population and the relatively lengthy period—five years—between elections, means that by the time of the next election, due to be held in 2023, almost 8m people will be eligible to vote for the first time. There were only 15m eligible voters at the most recent election, last year, so the new cohort will constitute well over a third of the electorate. Understanding their concerns will be essential for political success.

This new cohort may prove a tricky bunch to please. Young people find politics comic, says one teenager. "It isn't taken seriously and that needs to change." An ambiguous survey conducted after last year's election by the Merdeka Centre, a polling outfit, gives an inkling of young voters' ►►



Coasting toward a new kind of politics

▶ mixed feelings. Only about 65% of those aged between 21 and 30 thought the country was going in the right direction, but 92% were satisfied with the victory of Pakatan Harapan (PH), the coalition that is now in office.

The government is trying to cater to the concerns of the young. Saddiq Abdul Rahman, the minister of youth and sports, who is in his twenties himself, championed the lowering of the voting age. He has also pushed to raise the minimum monthly wage for interns from 300 ringgit (\$72) to 900 ringgit and to streamline the provision

of vocational training to youngsters (no fewer than six ministries are currently involved). “If we fail to deliver on the basic needs of the young populace then you’re bound to create a vacuum which will be filled by demagogues,” he argues.

That is quite possible. Malaysia’s politics has long revolved around racial and religious divisions, as any greying citizen will attest. The country’s three main ethnic groups—Malays, Chinese and Indians—tend to vote for parties which claim to represent their respective interests. “I think the divide is more pronounced among the

older generations,” explains one student. Certainly PH, which is not as ethnically minded as the previous ruling coalition, seems to have attracted a disproportionate share of the youth vote. There are vocal campaigns, spearheaded by younger voters, for greater rights for women and greater sexual freedom, which go against the grain of religious and ethnic politics. But such concerns seem to pale in comparison to worries about earning a living. Then again, if economic anxiety begins to trump identity politics, that would also mark a dramatic shift. ■

## Banyan No Jokowi

Where did the reformist just re-elected as Indonesia’s president go?

NOT SINCE 1998, when huge crowds demanding *reformasi* brought down Suharto, Indonesia’s late dictator, have university students taken to the streets in such numbers. In cities across the archipelago and, above all, outside the parliament in Jakarta, tens of thousands have gathered in the past few days. Despite tear-gas, water cannon and beatings, their numbers are growing. Joko Widodo, or Jokowi, the recently re-elected president, faces an unexpected test.

The protesters carry a rattlebag of demands tied together by attempts by the political elite and the security forces to roll back two decades of democratic change. They call their movement *reformasi dikorupsi*, or reform corrupted. That Jokowi has come into the movement’s sights is significant. He swept to power in 2014 because Indonesians loved his reputation for clean government and because he was outside the intermarried elites that have long dominated politics, the security services and business.

Jokowi’s handlers would still have you believe that in some respects he is on the side of protesters, one of whose strongest objections is to proposed revisions to a criminal code that dates back to the Dutch colonial era. The bill’s backers in parliament say it is an essential articulation of Indonesia’s independence. Its detractors point out that it badly undermines the rights of women as well as sexual and religious minorities. It also criminalises all extramarital sex (and therefore gay sex) and censors the dissemination of information about contraception. Given that perhaps two-fifths of unmarried Indonesian adolescents have had sex, you start to understand the depth of student feeling. (Australia has even warned unmarried holidaymakers in Bali to watch out.) The



bill would also criminalise criticism of the president.

The law, promoted by Islamic conservatives, was not the government’s doing, but Jokowi had agreed that it should proceed. This dismayed many: the president is a pragmatist, mild in his moral views to the point that his fiercest Muslim critics see him as un-Islamic. Yet in a striking reversal on September 20th, four days before the bill was expected to pass, he asked on television for its passage to be delayed, on the grounds that all the criticism suggested there was room for improvement.

That is proof, his defenders say, that he can stand up to Islamist intolerance. Why he left it so late to intervene remains unclear. Perhaps he was preoccupied with another bill, which guts the powerful anti-corruption commission, the KPK. Parliament approved it in mid-September—another of the protesters’ grievances.

Set up in 2003, the KPK is a *reformasi* success story. Jokowi himself supported its independence when he came to power. But that was before it began investigating his first choice as police chief, who is close

to his patron, Megawati Sukarnoputri, the daughter of Indonesia’s independence leader. Members of parliament, ministers, regional barons, regulators, central bankers and bosses of state enterprises have also been indicted.

The bill stipulates that members of the KPK must henceforth be civil servants, preventing the recruitment of outside experts. Its new chief will be Firlil Bahuri, a senior officer in the police, where the KPK has long hunted for corruption, but which Jokowi has bolstered as a counterweight to the army. MPs cheer Mr Bahuri’s appointment: senior police assiduously cultivate good relations with politicians. Meanwhile, wire taps and searches must in future be authorised by an oversight board picked by the president. That, says Kevin O’Rourke, author of a seminal book on *reformasi*, will make it easier for errant executive-branch members to cover their tracks.

So what on earth is Jokowi thinking? He hates the politicking side of his job: perhaps he reckons a KPK at heel will make it easier to placate demanding parties in his coalition. Perhaps he thinks a bit of graft is the price for getting stuff built quickly. His true passion lies in new roads, ports and power stations—anything to boost growth to the 7% a year that remains his obsessive if infeasible target. Deeper institutional reform is clearly off his second-term agenda.

But it is on the agenda of the protesters. As well as opposing the criminal code and the assault on the KPK, the students are calling for palm-oil giants to be held responsible for forest fires and for an end to the army’s brutal rule in the Indonesian half of New Guinea. By ignoring these pleas, Jokowi no longer looks like a reformer.





### Sinicising Islam

## Out with the Arab-style

DUANJIAPING

**China's repression of Islam is spreading from Xinjiang to other Muslim areas**

AS DARKNESS BEGINS to settle on Duanjiaping village, a few men in white skullcaps head towards a large mosque. It is time for the Maghrib, the fourth of the five daily prayers of devout Muslims. It is clear even before they reach the building's high yellow walls that all is not right. The prayer-hall's four minarets, topped by golden crescent moons, are still a towering landmark. But they are covered in scaffolding and green netting and they are not due for repair.

It is less than six years since hundreds of Muslim men gathered in the mosque's courtyard to celebrate the completion of its new Arab-style prayer hall. It had cost 9.8m yuan (\$1.37m)—a tidy sum in a county that is officially classified as impoverished. The festivities had official blessing. The imam of one of the most important mosques in Lanzhou, the provincial capital, was there. So, too, was a senior leader of the government-backed Islamic Association of China.

Much has changed. A chill political wind has been blowing over Duanjiaping

and hundreds of other villages and towns in Linxia, a majority-Muslim prefecture in Gansu province, which borders on the Tibetan plateau and the far-western region of Xinjiang. Many villages in Linxia have at least one mosque, with minarets visible far and wide. The one with the scaffolding in Duanjiaping can accommodate 3,000 worshippers. Its grandeur is not unusual. In recent decades rural communities in Linxia—China's "little Mecca", as it is often called—have vied to outdo each other in mosque-building. Now the government is not only reining them in, it is tightening controls on their faith as well.

The horrors of China's campaign against Islam in Xinjiang are well known. About two years ago reports began to emerge of the building of a vast gulag there. Hundreds of thousands of ethnic Uighurs

have been thrown into it—many simply for seeming too pious. There are about 10m Uighurs in China. But they form only about half of the country's Muslim population. Linxia is home to more than 1.1m Muslims, mainly belonging to two ethnic groups: the Hui and the Dongxiang. There are Muslim communities scattered widely across the rest of China (see map, next page). Most are made up of Huis. Because of Xinjiang's history of separatism and terrorism, Uighurs are suffering by far the harshest clamp-down experienced by any of these Muslim groups. Outside Xinjiang, however, other believers are starting to feel the effects, too.

The government's attitude towards Muslims in the interior began to change in 2016 after China's leader, Xi Jinping, set out plans for the "sinicisation" of the country's religions. Christianity and Islam, having strong overseas connections, became the main targets. Officials set out to purge them of foreign influences deemed threatening to the Communist Party. In the case of Islam the aim was partly to prevent the spread of radicalism and with it, terrorism.

Among Muslims elsewhere in China, however, there have been no reports of terrorist links. The Huis were once China's model Muslims, quite unlike the Uighurs in Xinjiang who have chafed at Chinese rule for decades. A few Uighurs have occasionally used violence to vent their grievances. The Huis have no separatist ambitions. They claim descendance from Arab ►►

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► and Persian traders who settled more than a millennium ago. After centuries of intermarriage they have become ethnically assimilated with Han Chinese, who make up more than 90% of the population. Huis in Linxia have historically played an important role as middlemen in trade between Tibetan and Han communities. Many have grown rich by trading a Chinese medicine that is often used as an aphrodisiac, known as caterpillar fungus. It is harvested from the Tibetan hills. Linxia is home to one of the country's biggest caterpillar-fungus wholesale markets; its traders are mostly Muslims.

But as the scaffolding in Duanjiaping shows, the government worries that Muslims in Linxia are absorbing the same influences from Islam abroad that it says have fuelled strife in Xinjiang. "Right now, work related to Islam is even more complicated than it has ever been before," Gansu's party chief, Lin Duo, told a meeting of senior officials in July last year.

### Off with their domes

One aim of the sinicisation campaign is to reduce visible links between Islam in China and that in the Arab world. China fears that Saudi Arabia in particular—as much a draw to Muslim pilgrims in China as to those elsewhere—will poison Chinese Islam with Wahhabism, a puritanical strain that is often linked with extremism. But its efforts to prevent this are affecting many Muslims who have no truck with militancy. In March officials in the southern city of Guangzhou announced rewards of up to 10,000 yuan (\$1,405) for reporting on "illegal religious activities", including organising private trips to Mecca. China's Muslims can join only officially arranged ones.

The mosque in Duanjiaping is a casualty. Officials have ordered it to remove its Arab-style minarets and replace them with Chinese-looking ones. A picture of what the mosque will eventually look like is displayed in the entrance. The minarets will have green-tiled upturned eaves in Chinese style. The central bulbous dome will be replaced by a pavilion-like structure, also classically Chinese.

"The government says we have to do it, so we're doing it," says a caretaker. The work will not offend religious sensibilities and will be done at the government's expense, he claims. That contrasts with reports from other places where similar work is being carried out. In a nearby town, Kangle, a nervous Hui surveys another mosque with scaffolding on its minarets. He says "trouble" broke out there a few days earlier when local religious-affairs officials ordered their demolition. They were erected in 2014. The following year the mosque was named a "model religious site" by Linxia's government. No longer, it seems.

In August last year there was trouble on

a much bigger scale in Ningxia Hui Autonomous Region, a province bordering on Gansu that is home to about one-fifth of China's Hui people. For three days thousands of Muslims in the town of Weizhou staged protests at a massive mosque—initially over a government order that the entire building be knocked down because it had not received planning permission, and subsequently over a revised proposal that only the domes be removed. Remarkably, the local government backed down. But it was clearly worried about the turmoil. In November the party chief of Ningxia visited Xinjiang, where he signed counter-terrorism "co-operation agreements". He noted religious similarities between the two provinces and said, ominously: "That's why Ningxia went to learn from Xinjiang."

In Gansu the official Islamic Association has circulated 20 recommended designs for mosque roofs "with Chinese characteristics". Officials say they want no more "Saudi-isation" or "Arab-isation" of buildings. The association has instructed Muslims to forsake the common practice of building or expanding mosques without government permission and to make them less "vast and extravagant". It has also tried to tighten its control over the religion itself. It has ordered Gansu's teachers of Islam to reject any new doctrine from outsiders. "Anything that does not already exist at home should not be accepted from abroad," said the association's annual report, published in March. "If something does not exist locally then it should not be approved if it is introduced from elsewhere."

Part of the sinicisation effort is called the "four-enter" campaign. This means ensuring that four things are introduced into every mosque: the Chinese flag, propaganda concerning China's laws on religion, "core socialist values" and the country's "outstanding traditional culture". In Linxia, the impact is clear. The flag flies over many mosques. Billboards proclaiming socialism's importance to Islam fill their courtyards. Preachers have been told to in-

corporate these values in their scriptural teachings. And they must undergo regular testing on such matters to retain their permits to teach. Linxia's party chief, Guo Heli, tried to put a positive spin on the clamp-down during a visit to local mosques in June. "We must reduce the frequency, duration and scale of religious activities," he said, suggesting this would "lessen the burden" on the faithful.

The authorities are also trying to reduce Islam's influence in society. In Linxia this involves curbing the "proliferation" of the use of the term "halal". Provincial officials have accused Linxia's main city of "giving too much prominence to religious aspects" in its plans to expand the local halal-products industry. As part of the de-Arabisation campaign, officials have ordered restaurants to stop using the word "halal" in Arabic on their signs, as many once did. Only traces now remain. On many Muslim restaurants across China, including recently in Beijing, such lettering has been painted over or prised out.

By changing the design of Duanjiaping's mosque officials may hope to reduce Islam's profile, just as officials on the coast have been trying to make Christianity less visible by removing hundreds of large crosses from the tops of churches. In line with regulations issued last year forbidding the building of mosques that are "overly tall", the new minarets in Duanjiaping will be much lower. Mosques have also been ordered to install less-powerful loudspeakers. Officials have stepped up efforts to keep children out of them and bar minors from religious instruction.

The government's controls over Islam are still relatively relaxed in Linxia compared with those in Xinjiang, where Muslims, if they are not thrown into "vocational training centres" (ie, prison camps), are subject to intense digital surveillance, a heavy police presence and intrusions into their homes by prying officials. Many of Linxia's mosques retain their Arab-style minarets (locals say they are cheaper to build than Chinese-style ones, which require skilled carpenters and expensive wood). Only a handful of mosques have so far been told to rebuild theirs, says a local Hui-culture expert. Extremism, he says, "has not become a trend" locally.

But the authorities insist it is spreading. In July the leader of a central-government inspection team said that in some parts of Gansu "religious extremist forces" were already "dominating and corroding" grassroots political bodies. This was, she said, "a problem worth attention". Extremist is a word that trips lightly off officials' tongues. It is often used to describe behaviour that in many other countries would be regarded simply as devout. Muslims in the rest of China may not suffer the Uighurs' terrible fate, but they have reason to be nervous. ■



## Chaguan | Hearts and minds

*China's rulers want the undivided loyalty of their subjects. That is causing a tragedy in Hong Kong*



OVER THE past four months as many as 2m Hong Kongers—or more than a quarter of the city's residents—have marched to demand the scrapping of a bill that would have exposed criminal suspects to the mainland's courts. Those protests were a stunning vote of no confidence in China's Communist-controlled legal system. They worked: the extradition bill is being withdrawn.

It is hard to imagine a clearer rallying cry for the many mainlanders who distrust their own justice system. Their cousins in Hong Kong, guaranteed access to independent courts and uncensored news under the rubric of "one country, two systems", could not bear to live as mainlanders must every day. But dissent in Hong Kong has not proved contagious.

Not all 1.4bn mainlanders think alike, but there are no reports of any of them marching in sympathy. That may be in part because, thanks to the unsleeping censors who guard the Great Firewall of China, many know nothing of the extradition debate. But it is also because an unknowable but significant number accept the narrative of China's media that treacherous radicals in Hong Kong, perhaps funded by the CIA, are trying to split the motherland. The widespread acceptance of this narrative is a testament to the government's success in shaping the way its citizens see the world.

Yet China's propaganda machine, so effective at home, is making a fool of itself in Hong Kong. When officials try to peddle the idea that a silent majority in Hong Kong loves China, their efforts strike many people in the territory as laughable. Communist-controlled outfits in Hong Kong have often simply copied successful stunts by protesters. In mid-September pro-democracy marchers hiked up a local peak, Lion Rock, creating a chain of lights with smartphones, torches and laser pointers as dusk fell. The next day a smaller group of red-clad patriots puffed up the same hill to wave a giant national flag, in images heavily promoted by the mainland's media. When youngsters in Hong Kong packed shopping centres to sing a new protest anthem, small bands of the party faithful were mobilised to belt out China's national anthem in the territory's malls.

On the eve of a spectacular parade in Beijing on October 1st, when tanks and nuclear missiles will trundle past President Xi Jinping to mark 70 years of the People's Republic, it is worth pon-

dering the domestic success of China's propaganda apparatus, and its external cluelessness. That machine is best understood as a giant, state-directed monopoly. Within China, it has grown strong. But in free markets fizzing with ideas and arguments from around the world, China's patriotic sloganeering falls flat.

In Hong Kong the city's former colonial master, Britain, left behind an awkward hybrid. The territory has the political culture and education system of a liberal democracy. But its leaders are mostly appointed, with only a minority of political offices opened to direct election. Since Mr Xi became the Communist Party's boss, China has betrayed its impatience with even that limited accountability, and the central government's agents have worked to marginalise competing voices.

In 2012, the year Mr Xi took over, the Hong Kong government tried to impose "national education" on schools, but retreated in the face of mass protests. Politicians seeking greater autonomy or even independence (a minority view) have been barred from office or from running for office. A national-anthem law demanded by Beijing, if passed, would make criminals of Hong Kongers who boo the tune at football games.

The results may be heard in Hong Kong's shopping centres almost every night. Strolling this week through Kowloon, Chaguan chanced upon a few dozen youngsters who had been summoned by Telegram, an encrypted social-media app, to sing the protest anthem in the atrium of a shopping complex.

Nic, a 25-year-old protester, described his mixed identity. He does not imagine that Hong Kong can be independent, noting that 50 years after the handover from Britain the promise of one country, two systems will expire. "In 2047 we will return to China fully, we understand that," he says. "But we are trying to protect what we have until the last day." When he travels, his passport says "Hong Kong, China". But when asked who he is, he replies: a Hong Konger. "China is not what we are proud of," he explains. "The Chinese government sucks."

Politics in Hong Kong is turning dangerously tribal. Rather than a debate about policies, it is becoming an argument about who is good and who is bad, who is bent on saving Hong Kong or on destroying it. In that culture war politicians who sympathise with the party conflate flag-waving patriotism with legitimacy. That has led them to endorse "patriotic" thugs and alleged gang members, including when they assaulted protesters in the far-northern district of Yuen Long in July. That single incident changed the nature of the demonstrations, says Cheng Chung-Tai, chairman of Civic Passion, a party that wants more autonomy for Hong Kong. After Yuen Long, showing resistance and defiance to authority became a badge of belonging to the group that sees itself as defending the territory. "Last Sunday Tseung Kwan O got tear-gas for the first time. They celebrated," notes Mr Cheng, referring to an operation by police to quell protests in an eastern district.

### No room for a loyal opposition

Little in Mr Xi's record suggests that he will respond generously and imaginatively to Hong Kong's identity crisis. In other peripheral territories, such as Tibet and Xinjiang, he has authorised brute force backed by high-tech surveillance and a pounding drumbeat of propaganda to crush hybrid identities. Hong Kong, a still-vibrant if troubled world city, will be harder to bring to heel. Alas, 70 years after its founding, China is hostile even to constrained forms of pluralism. That is why, wherever people have choices, it inspires fear or awe, but not love. ■



## Climate action

## The day after tomorrow

NEW YORK

### Signals amid the noise at the UN's climate summit

**"HOW DARE YOU!"** Even by her impassioned standards, the address to the UN General Assembly by Greta Thunberg, a young Swedish climate activist, was coruscating stuff. "How dare you continue to look away and come here saying that you're doing enough when the politics and solutions needed are still nowhere in sight." She will have seen or heard little at the UN's one-day climate summit or in the wide range of get-togethers surrounding it which made up New York's climate week to placate her wrath.

The summit concluded with a torrent of new announcements. There was a commitment by 65 countries and the European Union to reach net-zero carbon emissions—taking as much carbon dioxide out of the atmosphere as they are putting in—by 2050. Germany, Slovakia and others joined an alliance to halt the construction of coal plants; 32 countries are now members. Companies and investors announced measures to reduce emissions from shipping, buildings and more. Narendra Modi, India's prime minister, set a new 450-giga-

watt target for his country's renewable-energy capacity, more than five times the current level. The UN's secretary-general, António Guterres, professed himself pleased: "Today, in this hall, the world saw clear ambition and concrete initiatives."

Some announcements were promises of future announcements. Fully 59 countries said that they would shortly be unveiling more ambitious commitments under the Paris agreement, which aims to keep global temperatures "well below" 2°C above those in pre-industrial times; a global round of such increased commitments is to be negotiated next year.

Even if all the pledges are acted on, though, the gap between what the summit promised and what needs to be done remains a chasm. If Mr Modi were to quintuple India's renewable power capacity over 11 years, that would represent an annual

growth no higher than that of renewable generation worldwide in the decade 2007-17—and he said nothing about reining in the support that India's state-owned banks offer coal companies. India has made no commitment to reach net-zero by 2050 or at any other time—any more than America, China or Russia has.

Away from the UN, businesses got in on the act. Some 87 companies, including Nestlé and Salesforce, a big provider of software-as-a-service, pledged to reach net-zero emissions in their businesses by 2050. Jeff Bezos did them ten years better, announcing that Amazon would reach net-zero emissions by 2040 and that it was buying 100,000 electric lorries to move towards that goal. Overall, some 650 companies with a market value of \$1trn have signed up to the Science-Based Targets Initiative, a consortium of NGOs which certify and monitor the commitments firms make to align themselves with the Paris objectives. Many aim to cut emissions by around 2.5% a year. They are trying to reduce energy consumption in their supply chains and in the way their products are used, too. On average these emissions are almost six times larger than those from a firm's direct operations, says Alberto Carrillo Pineda of CDP, an NGO which monitors corporate climate efforts.

Unfortunately, while target-setting firms account for 14% of the world's stock-market value, they emit only 2% of its carbon. Between 1988 and 2015, according to ▶▶

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▶ CDP, 71% of greenhouse-gas emissions came from fossil fuels sold by 100 energy giants. On the afternoon of September 23rd the bosses of companies including Exxon-Mobil, Royal Dutch Shell and BP sat in the airy Morgan Library for a forum organised by the Oil and Gas Climate Initiative, an industry effort to reduce emissions from operations and invest in technologies that will help mitigate climate change.

The firms vowed to limit methane emissions and highlighted their investment into carbon capture and sequestration. But they also explained that they were continuing to develop new oil and gas fields. “We are meeting a demand for a product that makes the quality of life in the world better,” said Mike Wirth, the boss of Chevron.

They are unlikely to stop unless demand drops off. That might happen if, or when, the regulatory war on carbon enters a new phase. A new report by Principles for Responsible Investment, an unsupported group of investors with \$86trn under management, predicts “abrupt and disruptive” climate policies by 2025, as authorities wake up to the urgency of the climate challenge. Mark Carney, governor of the Bank of England, used his UN speech to stress the need for businesses to be made to disclose the costs that climate change and climate policies could stick them with.

A complement to better assessing the climate risks of investment is to invest in things that reduce the climate risk in the first place. This is aim of the Climate Finance Leadership Initiative (CFLI), a group of banks, asset managers and energy developers handpicked by Michael Bloomberg, former mayor of New York City and a UN special envoy for climate change.

There is a huge need for energy investment in poor countries. There is a huge amount of capital in rich-world pension funds. At the moment, though, zero-carbon energy in developing countries does not appeal to those funds’ appetite for safe and reliable investments.

That is where the CFLI comes in. By bringing together asset managers, like AXA and Japan’s Government Pension Investment Fund, banks, like HSBC, and energy-project developers, such as Enel, it can cover the pipeline of renewable investment projects—from capital raising and allocation to project development.

In a recent report the CFLI said that closer ties between private finance and development-finance institutions would allow greater use of tools that share risk between public and private investors. With that in mind, on September 25th the CFLI announced a tie-up with the Association of

European Development Finance Institutions. The association’s members have experience in emerging markets; they can scope out projects for the CFLI and bear some of the risks.

The CFLI plans to invest \$20bn in the next five years. Compared with the trillions needed in clean energy, that does not sound much. But Daniel Klier of HSBC argues that by creating successful pilot projects the CFLI can demonstrate the attraction of its strategies for removing risk from renewable energy investments.

Such promising initiatives are unlikely to placate Ms Thunberg. “All you can talk

about is money and fairy tales of eternal economic growth,” she raged at the general assembly before seeking to conscript another UN body to her cause. Under the “third optional protocol” to the Convention on the Rights of the Child, the Committee on the Rights of the Child can be petitioned by children being denied their rights. Ms Thunberg and 15 other young people filed such a complaint against five countries that have ratified the protocol—Argentina, Brazil, France, Germany, and Turkey—for following climate policies that do not respect or protect children’s rights. They are nothing if not determined. ■

## The world’s oceans

# Sea changes

### Oceans are increasingly bearing the brunt of global warming

**T**HE WORLD’S OCEANS are getting warmer, stormier and more acidic. They are becoming less productive as the ecosystems within them collapse. Melting glaciers and ice sheets are causing sea levels to rise, increasing the risk of inundation and devastation to hundreds of millions of people living in coastal areas.

The latest special report from the Intergovernmental Panel on Climate Change (IPCC), on how the oceans and frozen regions of the planet are changing in response to the rising carbon dioxide levels in the atmosphere, is a predictably grim read. The final text, pored and argued over by scores of scientists and policymakers from 36 countries over the course of marathon meetings in the past week in Monaco, makes reference to almost 7,000 relevant scientific studies.

For decades, the oceans have provided a buffer against the full impact of a warming planet. Since 1970, says the report, they have soaked up more than 90% of the excess heat associated with greenhouse gases and absorbed around a

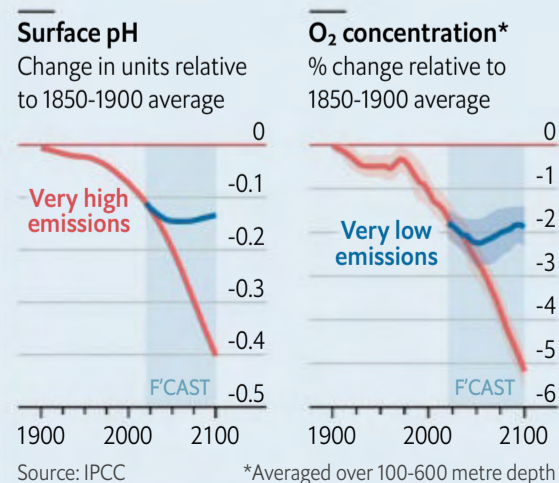
quarter of the carbon dioxide emitted from cars, power stations and factories. As oceans warm, the layers of water within them mix less and the supply of oxygen and nutrients decreases. The upper layers of the world’s seas have lost 1-3% of their oxygen in recent years and the increased absorption of CO<sub>2</sub> has made the water more acidic, complicating life for creatures such as coral that need to build carbonate shells. As this continues, the report predicts that around 15% of animals are likely to disappear by the end of the century, and that fish catches could decline by as much as a quarter relative to average levels between 1986 and 2005.

Farther towards the poles, the permafrost—permanently frozen soil—is at risk. Even if the average global temperature increase is limited to 2°C above pre-industrial levels—already an ambitious target—a quarter will thaw. If greenhouse-gas emissions and temperatures increase further, almost 70% of this near-surface permafrost could melt. Frozen in that earth are 1,460-1,600 gigatons of carbon, says the report, almost twice the amount already in the atmosphere, much of which could be released if the soil thaws.

The IPCC process is rooted in science but reaching any consensus is tricky. The politics demand some sacrifices. Big producers of fossil fuels such as Saudi Arabia, for example, often quibble with the strong conclusions in such reports. For the sake of unanimity, some of the language was weakened. Even so, this latest report provides a new, unified portrait of Earth’s oceans and ice realms that should better inform policymakers. And better informed could mean better protected.

### Troubled waters

Global oceans, under different scenarios



**Correction:** Omissions in a chart on emission scenarios in last week’s briefing, “What goes up”, made it appear that a number of those scenarios would avoid 1.5°C of warming. They would not, and the chart has been corrected online. Sorry.



## A Success Story

Malta's impressive economic trajectory over the past couple of decades didn't come out of nowhere. It's been the result of sound government policy, and more than just a little initiative.

Everyone loves an underdog. The only question is - when does the winning streak become sufficiently long that you're no longer considered one? In 2019, for the third year running, Malta topped the EU Commission's growth charts. Jobs in the country are growing by 4% year after year. And according to Moody's February report, Malta, alongside Germany and the Netherlands is one of just three countries in the EU to reduce their debt-to-GDP ratio since the financial crisis of 2008.

By all accounts, this is a remarkable economic performance. For an island nation with just under a half a million inhabitants, and little to no natural resources, all the more so.

### How did the Maltese do it?

"Innovation" is usually how observers of Malta's transformation explain it - new approaches, advances in competitive practices that paved the way for higher productivity. But that's an incomplete (and rather anodyne) description. What Malta has done is much more specific (and interesting). It has built a kind of innovation laboratory, where the government has reupholstered entire structures like the regulatory state or cultivating a cutting-edge talent pool - to build a diversified economy firing on all engines.

Take healthcare. "There are disadvantages of being small, but there are also advantages," said Dr. Christopher Fearn, Malta's Deputy Prime Minister and Minister of Health, pointing to the country's use of data to analyse health outcomes across the country's population, advances in remote patient modelling, development of new antibiotics, and more transparent drug pricing. "What we need to do now is to introduce innovation into the health sector and set ourselves up for pilot projects for other larger countries to follow suit," notes Dr. Fearn.

The result is that Malta's national healthcare system is consistently ranked in worldwide top ten lists. Indeed, the government's deep investments into both healthcare and education have lifted the country's life expectancy - the longest in Europe - and boosted the labour force. "We boast of having processes that are very efficient: we are English-speaking, we are members of the European Union and we have political stability. This is something that obviously plays in our favour and furthermore we can adjust and adapt according to changes," said Silvio Schembri, Malta's Junior Minister for Financial Services. "This puts us at an advantage when you compare us to larger European countries."

Malta's advantageous economic positioning has directly benefited from the government's decisions on two major public policies. The first was switching from

complete reliance on oil for the country's energy needs to natural gas, said Professor Edward Scicluna, the country's Minister of Finance. This had an enormous effect by reducing the cost of energy for households and industry. The second decision was to lower the burden on work and encourage women to join the labour force. Many Maltese women wanted to join the work force but faced obstacles in doing so. Scicluna points to how the government struck a deal whereby women "would find work and earn a salary but they would keep some of their benefits in a tapered structure - 60% the first year, 45% the second year, 25% the third year, and then they would have in-work benefits" and free universal childcare. The results have been spectacular.

Add to a smart energy grid and a supported labour force is the country's all-out embrace of new technologies requiring a nimble and agile regulatory regime. Malta's rapid understanding of how distributed encrypted ledgers are crucial to industries based in the country such as gaming and financial services, has earned the country the nickname 'Blockchain Island'. "Our regulatory framework was created to encourage and safeguard this type of technology. The operators in this field were operating in a vacuum - there was no legal recognition. The framework we designed provides them with legal certainty, which they didn't have, but also provides certainty to their users as well," explained Stephen McCarthy, CEO, Malta Digital Innovation Authority.

In a nutshell, that's how Malta innovates at the systems level, by examining how to re-engineer the supporting architecture around an industry. "It's what we call 'Innovation through regulation', so looking at the regulatory framework and working on how we can best package the industry to make it attractive for operators to set up in Malta. I believe that is the key driving theme on the basis of which we have managed to generate the economic success we are experiencing now," said Kenneth Farrugia, Chairman of Finance Malta.

With this mentality in tow, even the manufacturing sector is thriving. Having adapted from a base in textiles to mechanical parts, then to microchips, pharmaceuticals, or the printing of currencies, Malta is now expanding into nascent (and controversial) areas like medical cannabis.

All of which augurs well for the country and its partners moving into the next decade. This is especially the case with the United Kingdom, with which Malta has a historically privileged relationship. "Our work ethic is very British here," observed Joseph Zammit Tabona, Chairman of the Malta Business Network. These commonalities have encouraged British businesses to look to Malta for post-Brexit co-location solutions, notes Finance Malta's Farrugia, giving organizations the capacity to retain core operations in the U.K. while conducting E.U. business operations.

"We've come a long way," resumes Scicluna, Malta's Finance Minister.



## Why Malta?

For the past two decades, a steady stream of businesses, families and high net worth individuals have been making their way to Maltese Shores. What's the draw?

**A**sksed to explain the similarities between British and Maltese business mentalities, Joseph Zammit Tabona, Chairman of the Malta Business Network, maintains there is a continuity between their shared desire to open doors, align stakeholders and enable businesses to grow. "While an Englishman might wait his turn in a queue" the Maltese are just a bit more impatient about it, Zammit Tabona explains. Given Malta's recent history of legislating emerging technologies before anyone else, it's clear that being open to business and reinvention is in Malta's DNA.

The international business community seems to have noticed. By the end of 2018, the total stock of FDI flows to Malta reached 206 billion dollars. With Malta's 70+ double taxation treaties as well as a range of fiscal incentives that lower corporate tax burdens from 35% to around 5%, it's no wonder that the traffic keeps on coming. Between 2014 – when the current Labour government came to power – and the end of 2017, Malta led the Eurozone in growth, expanding more than 4.5% per year, in part thanks to a financially sound banking sector. With 18.3 billion euros in deposits in Malta's core banks and a financial services sector that grew by 9.5% in 2018, Michael Collis, CEO of BNF Bank confirms they recorded a 25% growth on their balance sheet, "for a small island, there's a great deal of economic activity".

An influx in commerce brings with it an influx of people. Conservative estimates of Malta's expat population put the number in excess of 50,000, with others levelling out at 100,000. The British are by far and away the largest proportion of full-time residents, numbering over 12,500. Some come for work, others for the lifestyle and investment opportunities provided under the Malta's Citizenship by Investment Programme, which has approved over 1000 families since its launch in 2013. "They're well connected, they have business ideas, they're entrepreneurs, and there will be those who will be interested in investing in Malta", says Joseph Cardona, CEO of Malta Individual Investor Programme Agency. "Some have opened factories, others have opened offices and operations in the IT sector... It depends on where they see the opportunities and where their expertise lies." In the real estate sector alone, the programme has seen a contribution to the Maltese economy in excess of 200 million euros.

Contrary to popular belief, while the Maltese life seems easy, being granted citizenship or even opening a bank account, is everything but. Juerg Steffen, CEO of Henley & Partners, explains that Malta requires more due diligence and

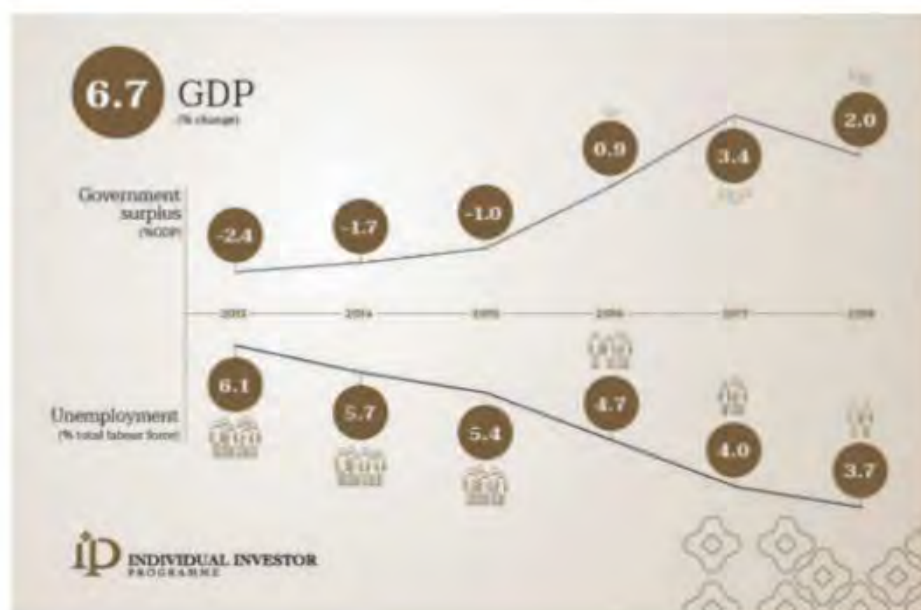


paperwork than any other citizenship programme. For Cardona, these precautions are essential in and of themselves, but also have the added value of generating a sense of prestige. "The kind of applicants that we try to attract are also themselves normally interested in who is the next in line". Marcel Cassar, Chairman of Malta Bankers' Association explains that as the country grew as a respected financial centre on the back of serious regulation, when the crisis in Cyprus hit and businesses tried to migrate, "Malta refused the business and activity in many cases". While modern banks such as BNF Bank feel certain that the government's very pro-business approach and a beefed up MFSA "will enable the financial services sector to move along", tradition, competition, regulation and reputation remain key for the Maltese.

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# MFSA – Paving the way for the future of financial services

As the tides of the global financial sector shift, Malta prepares for the future of finance.

**T**here is a new sheriff in town and his name is Joseph Cuschieri. Having been appointed as head of the Malta Financial Services Authority (MFSA) in April of 2018, Cuschieri is faced with the sizeable challenge of surpassing the EU's regulatory demands and catering to the traditional banking sector, all the while preparing the ground for the new kids on the block, from blockchain to fintech and beyond. Cuschieri previously served as the head of the supervisory Authority behind Malta's gaming boom, which now accounts for twelve percent of Malta's GDP. While the task set before him at the MFSA is substantial, given Malta's recent history, it is also not entirely out of character. "We have a tendency, as a nation and as a people, to punch above our weight," says Cuschieri. "When you are small, you are more nimble when mobilising resources, executing, and acting on a legislative level. It's just much quicker."

With financial services now accounting for an eighth of the Maltese economy, he is preparing to take the country's financial services industry to the next level. The MFSA, founded in 2002, now lists some 2300 licensed entities on its books. Having recently announced its Vision 2021, reports indicate its operating budget is set to increase substantially over the next three years. This expansion is all part of Cuschieri's plan to make Malta one of the top five financial services jurisdictions in Europe. Getting there will require some changes, as reflected in the priorities and initiatives outlined in the Strategic Plan 2019-2021 launched by the MFSA in early September. "We have to prepare this organisation for the Fintech generation," he explains. "I know for a fact that in five years' time, with the technology coming upstream, the way financial services are delivered today is going to be dramatically different. The way we supervised the sector in the past was good, as it got us here, but what got us here, will not take us

where we want to be. We have to prepare the organization for the FinTech generation."

He's not wrong: between an increased drive towards automation and the emergence of digital currencies and blockchain technology, the ground is shifting underneath the feet of both consumers and traditional banking institutions. The old guard has taken note. A 2018 survey by New Vantage Partners found that eighty percent of top executives from the likes of Goldman & Sachs and JP Morgan feared their businesses ran the risk

**"There are certain business models and activities that we just do not accept."** - Joseph Cuschieri

of displacement by highly agile data driven start-ups, including the tech giants Apple, Google, Amazon and Facebook. Benefits for the end consumer have already become tangible. As The Economist recently reported, the largest American banks are already spending over 25 billion dollars a year honing customer applications.

What is now needed is the appropriate regulation. In this respect, Malta has been something of a trailblazer. "The fact that we are a small and open economy makes us more agile, especially when it comes to legislative frameworks" says Silvio Schembri, Malta's Junior Minister for Financial Services, Digital Economy & Innovation. Upon assuming office two years ago, Schembri quickly developed the world's first legislative framework for crypto-currencies, blockchain, and DLT (Distributed Ledger Technologies). Cuschieri was appointed the next year to develop and implement the necessary reforms in the financial services sector: to that end, the MFSA now has a team solely dedicated to FinTech.

There was more than a bit of rationale behind his appointment. In 2001, Cuschieri joined the Malta Communications Authority where he drove most of the structural reforms enabling Mal-



MFSA CEO Joseph Cuschieri announcing the engagement of international experts.

ta's admission to the EU. After a decade in the private sector, he was appointed executive chairman of Malta's Gaming Authority in 2013 which now attracts over 1.26 billion euros a year to the Maltese economy. "The key to success for me is when you manage to align all the stakeholder groups with different interests around a common goal, which is that the sector be on a long term, sustainable trajectory", Cuschieri explains. "Then you need to build a regulatory infrastructure that can sustain shocks, with the right system of checks and balances."

there are certain business models and activities that we just do not accept", he says.

As Malta's Prime Minister Joseph Muscat noted in January of this year, the MFSA in the past has been criticised as being too harsh or too lax, "sometimes by the same critics". The expansion of pan-European supervision under initiatives such as the Single Supervisory Mechanism (SSM) for banking in 2010, of which the MFSA is an integral part, has widened the organisation's remit. In its evolving capacity, it published a strategy this year for combating money-laundering as well as the financing of terrorism. This is all part of the challenge of maintaining and promoting a 'risk-based' approach with stronger on-boarding procedures, while encouraging innovation in the sector. As Cuschieri puts it, "housekeeping is important and it's a process you have to go through."

It's all the more important when you are on an upward trajectory. With its current rate of economic growth, it's just a matter of time before Malta is spoken in the same breath as finance hubs like Luxembourg and Dublin. According to Cuschieri, this should be a reality sooner rather than later: "We have to look inwards and see where we can improve and up our game. Then, we take that leap forward and execute."

Since taking the reins, the new CEO has allocated twenty percent of the organisation's budget towards the promotion of new technologies. His priorities include the creation of a FinTech regulatory sandbox, a FinTech innovation hub and the upskilling of the MFSA staff. Then there is the screening of the MFSA's existing licence holder base to ensure compliance, with more stringent on-site inspections amounting to an improved supervisory framework. "We are calibrating our risk appetite and are de-risking ourselves. So,



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# How innovation is transforming a nation

Silvio Schembri reflects on the country's economic success story and plans for the country moving forward.



**T**he numbers speak for themselves. "If you look at the past four years, we've turned a deficit into a surplus for the third year running. We've adapted the GDP-to-debt ratio from about 73% to now 45% in that time. So, it's a huge amount of progress. Our GDP growth averages 6.5%. Inflation is hovering around the two percent range" explains Silvio Schembri, Malta's junior Minister for Financial Services, Digital Economy and Innovation for whom 2019 has been a particularly busy year.

Tasked with spearheading a slew of initiatives that are set to transform a Maltese economy already fast-in-flux, it was in March of this year that he unveiled the first details of the country's forthcoming AI strategy. This May, he presented the launch of Malta's Vision for Video Games Development and E-sports. Then in August, it was the of-

ficial release of the public consultation for Malta's Ethical AI Framework.

"Malta has an advantage in the sense that parliamentarians (no matter the party) tow the same line when it comes to job creation and matters of national interest. That's the benefit of being a small state like Malta" explains Eman Pulis, Founder of SIGMA Group. Processes will only take you so far though; as Schembri elaborates, one of Malta's best assets is its personnel. "That is our only natural resource," he says. In many ways, the young minister himself is archetypical of a new generation of highly educated and technologically savvy Maltese entering the commercial and political fold, propelling the island nation to the forefront of the digital age.

Entrepreneurs are already pushing the envelope and with its agile legislature and cosmopolitan

workforce, Malta looks primed to take things to the next level. Alexandre Dreyfus, CEO of Chiliz describes how Malta differs from his country of origin, France. "We have 17 different nationalities working at our company... If you free the talent, then innovation works. That is where Malta is really great."

As Malta expands further into the emerging technologies fold, what the country accomplished in the gaming sector (that now accounts for some 12% of its GDP) began 20 years ago and has proven instructive for other sectors of the island nation's economy. "Innovation through regulation is key for the MGA, but also for the country," explains Heathcliff Farrugia, CEO of Malta Gaming Authority. According to Schembri, the government's ultimate aim is to become a powerhouse for economic innovation. Malta's transformation into a mecca for techies is proving nothing short of brilliant.

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# Ahead of the Game

In 2004, Malta pulled off what would become the first of many legislative coups. It became the world's first country to regulate the online gaming sector.

**Press Report House sat down with Heathcliff Farrugia, CEO of the Malta Gaming Authority, to speak about how the sector has evolved.**

**Press Report House: Has Malta attracted the lion's share of the global gaming industry?**

Heathcliff Farrugia: The gaming industry is growing across all the E.U., as well as in Malta. The E.U. has allowed different states to regulate gaming on a national basis, and this has resulted in an increase in the number of operators and an increase in activity across the economic bloc. As to Malta per se, the fact that we've been in the industry for more than 15 years - having been pioneers in writing up the regulation for the industry - has led to a number of operators setting up shop here. Some of the most reputable operators who call Malta their home started off very small and now employ hundreds of employees. Overall, I believe that the eco-system we now have when it comes to gaming is second to none. You have amongst the largest B2B companies, a number of experienced law firms, accountants and other key service providers you need to operate in this industry. If you are a startup, there is no place like Malta.

**PRH: At a KPMG event at the end of last year you said "2018 saw a massive overhaul, a more risk-based approach and a move to what matters most".**

HF: Since we've been in the industry for such a long time, now we need to understand and accept the fact that globally, this industry is maturing rapidly, and this puts even more responsibility on us as a regulator. In 2018, specifically through the new law, we focused a lot on widening the regulator's scope, so as to be able to continue focusing on ensuring that those who are in possession of an MGA license, are truly worthy of keeping it.

For us, our reputation as a regulator is extremely important, and many a times, this means taking the tough decisions. In 2018 alone, we turned down over 70 individuals. We cannot allow just anyone to enter this business, if we want to remain a reputable jurisdiction, where international gaming companies decide to conduct their business from. For us, this is key.

**PRH: In which way are the new set of laws based on a holistic approach?**

HF: The new law has a holistic approach in the way it looks at the gaming sector.



Malta Gaming Authority CEO Heathcliff Farrugia.

If you look at the previous licensing framework for example, we used to have different licenses for the different types of games offered. For sports betting we had a license, for online casino we had a separate one and for P2P type of games there was yet another. Then there was another one for B2Bs. Now with the new law we just have two different types of licenses: either a B2B or a B2C. Whether you offer sports, online casino or P2P type of games, you don't need an additional license.

Furthermore, with the new law, we also merged online and land-based services. This means that there is no longer the need to obtain a separate license, albeit there are still some additional approvals one would need to obtain to offer land-based services; but ultimately, it's the same license.

**PRH: As the former chief regulatory officer and COO, and now CEO of the pioneer that is MGA, how can the Authority serve as model for other industries within Malta as well as other countries?**

HF: I believe over the years, the MGA has built a very strong reputation, where gaming supervision is conducted thoroughly. As mentioned, reputation is key for us, and the fact that a number of international companies are based here, puts even more responsibility on us to ensure that those in possession of an MGA license are worthy of keeping it.

The fact that the Authority embarked on the very ambitious project of enforcing a new gaming law, goes to show that even regulators need to be innovative. The gaming industry, like other industries, is very technologically-driven, and it evolves rapidly, and as such the laws regulating it must evolve and be flexible enough to remain relevant. The more innovative an industry is, the more innovative the regulations controlling it must be.

For us as a country, it is very clear that we believe in regulation. We believe that if you want to ensure an industry grows in a proper way, you need to regulate. If you don't, that same industry may still grow but most probably it would grow out of control. Through regulation, we can protect consumers, ensuring fairness and reducing the exposure to criminal activities. When you regulate, you give direction.



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# Leading the Charge

The Maltese Government unveiled three pieces of legislation aimed at providing a legislative framework for Distributed Ledger Technology (DLT).



“Given the skepticism surrounding blockchain, we took a calculated risk,” says Stephen McCarthy, CEO of the Malta Digital Innovation Authority (MDIA), reflecting back on the unprecedented move. As the international consensus warms to opportunities presented by technology, the MDIA, that ensures compliance with its corresponding legislation, has its work cut out for them. “What we are seeing is that companies from different sectors are entering into the blockchain space, and coming up with solutions using DLT,” McCarthy elaborates. “We expect the technology to flourish, not just in the finance sector, but also in sectors such as education and health.”

The legislation is designed in such a manner that it can readily be extended to cover other innovative technologies, such as quantum computing and artificial intelligence.”

For Joshua Ellul, MDIA’s chairman, it was a perfect fit. “As a jurisdiction that is familiar with the regulation of financial services and also the gaming industry, it made natural sense for Malta to look into regulating crypto currencies,” he explains. “We want to have due diligence done on the financial

**“Technology makes us global, one globe no boundaries, it makes freedom of speech more effective” - Dana Farrugia**

operations of a product and its application, and also provide assurances to users that the systems are actually doing what the operators claim they do.” Doing this takes a degree of expertise, and as a result, Malta is taking steps to make sure they have the right personnel.

“Locally, we are already working with local institutions to understand where we can improve our STEM and ICT curricula to make them more attractive,” says Dana Farrugia, CEO of Tech.mt. “Change is already happening at different levels of scholastic intake.” As Malta works on developing its personnel, other countries are just beginning to catch up on the legislative front: this year, both Japan and France have passed their own DLT legislation. Dana Farrugia also emphasizes that “Technology makes us global, one globe no boundaries, it makes freedom of speech more effective, faster and targeted. Democratic countries do not shy away from technology revolutions and Malta is a true example of this, as it is eager as a country to adopt more new technologies making it transparent and traceable to surf in our ecosystem”.



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# Healthcare for the Digital Age

With its first hospital having opened in 1372, healthcare in Malta has a long history on which the country plans to build.



**D**uring World War One, Malta was famously given the nickname “the nurse of the Mediterranean” by Allied soldiers. Over the course of four years, upwards of 130,000 wounded servicemen from the disastrous campaigns at Gallipoli and Salonica were treated in 27 different hospitals scattered throughout the archipelago. Talking to Malta’s Deputy Prime Minister and Minister for health, Dr. Christopher Fearné, it is clear that healthcare in Malta, like their state-of-the-art teaching hospital Mater Dei, is a source of pride for the Maltese and presents opportunities for growth. “We believe there’s potential for growth in the health sector beyond being a service provider for the population,” he explains. “We’re talking medical education and medical tourism.”

“Geographically we are bang in the middle of the Mediterranean close to Europe, North Africa and the Middle East. All of the conditions are here for us to feel that we can do even better than we are now,” explains Karl Azzopardi, CEO of Malta Industrial Parks. In typical Maltese style, it also means adopting new technologies “Big trends would be data, data, data,” explains Nadine Delicata, COO of Steward Malta. “There are a lot of analytics and data-mining that take place in real time which enables care providers to take the best decisions for a particular patient in a particular setting.”

“Practically every citizen makes use of the public health service in Malta so we have their data and can measure outcomes very quickly and can intro-

duce change very quickly on an entire population,” Dr. Fearné elaborates. As it stands, the introduction of continuous glucose monitors for the treatment of type 1 diabetes is slated for this year. “Once we have this for diabetes, we will extend it for lung disease and heart disease. This is an excellent way of preventing chronic diseases”.

As the Maltese forge forward with the application of new technologies towards old problems, cross pollination between different sectors is not only inevitable – but also, in the case of blockchain, highly desirable. “It will change the way we do medicine,” Dr. Fearné continues. “At the moment, information belongs to the institution that cares for the patient. Giving data to patients will empower them to decide for themselves who is best to talk to and who to share information with, for insurance, for participation in research and so on.”

This emphasis on information flows extends to the way Malta has handled its positioning on healthcare policy across the board. With the advent of the Malta Patent and Designs Act at the turn of the new Millennium, Malta has allowed the thirty or so international brand names operating within the country to develop and manufacture generic versions of drugs before the expiration of their patents. This means when the patents do expire, consumers are able to get the drugs they need faster, and for a better price. In 2017, Malta further consolidated these gains with the Valletta Declaration, a coalition of southern European countries banding together to make drug companies

disclose the prices at which they sell their products to different countries, which have been historically confidential, for the purposes of collective bargaining.

It’s not all just new information and new products though – it’s also old ones. “Malta has probably one of the world’s most avant-garde legislative frameworks with regard to the medical cannabis sector,” explains Paul Apap Bologna, Managing Director of Associated Drug Company. With renewed interest in the product as a therapeutic treatment, an extensive program of R&D is underway to determine its wider uses. Currently, it has found applications in oncology, cases of epilepsy and as a treatment for those experiencing severe pain.

With a robust regulatory regime, a healthcare sector mobilizing the power of private-public partnerships, and forward-thinking governance, Malta is proving itself a pioneer in yet another field. Still, no one is getting complacent. “I’m a firm believer that the past is no guarantee for future success,” says Frederick Schembri, an industrialist, Managing Director of Aurobindo Malta and President of the Board of Governors of The Malta College of Arts Science & Technology. The digital era presents opportunities for patients, governments and manufacturers alike “In the future we’re looking into aspects of consuming tablets with a microchip inside which you would be able to monitor from your app. The world is changing thanks to industry 4.0 and the technological revolution”. Healthcare is set to be as much a part of Malta’s future as it is their past.



The state-of-the-art hospital Mater Dei is a source of pride for the Maltese.

# Malta Industrial Parks and Industry 4.0

With automation upending traditional labour models and AI heralding new efficiencies, the manufacturing sector is undergoing seismic changes worldwide.



Yet again, Malta is ahead of the curve. "Innovation is something that we are always looking at," says Karl Azzopardi, CEO at Malta Industrial Parks Ltd (MIP). "It is about continuous development. Gone are the days when we are the passive landlord." Comprising 13 separate industrial estates with over a thousand operators, the manufacturing sector in Malta now accounts for 17 percent of the islands' GDP. These are the clusters making their mark on the space.



## AEROSPACE

Given Malta's strategic location in the middle of the Mediterranean, it is no wonder that its aviation sector is taking off. After a 20 million USD investment in the Safi Aviation Park, which covers some 240,000 sqm, the country has recently embarked on a project to create one of the biggest aircraft registers in the world. Given over forty percent of the world's aircraft are leased, this has proved a savvy move. Transport Malta provides some of the lowest fees in the EU for the registration of aircraft and today, aviation is one of the islands' fastest growing sectors. Coupling expertise in Maintenance, Repairs and Overhaul (MRO), with a favourable tax and regulatory framework, in 2016 Malta saw the Austrian private carrier Vistajet move its base of operations to the island. This year, Ryanair followed Vistajet's lead by establishing its subsidiary group Malta Air (not to be confused with the national carrier, Air Malta) and registering an additional six 737s to its fleet of airplanes based at the country's international airport.



## PHARMA

Malta has historically been labeled the nurse of the Mediterranean. In the 21st century, the term is appropriate as ever. With over thirty international brand names operating in the healthcare manufacturing space, producing medical devices, pharmaceuticals as well as active ingredients, the sector is booming. Its recent progress is partly attributable to its progressive stance on international patent law, allowing companies to manufacture generic versions of drugs with patents still active in its countries. Then there is their forward looking approach to emerging treatments. After legalizing the production of medical cannabis in 2018, Malta hosted the Medical Cannabis World Forum at the end of the same year, bringing together health practitioners, policymakers and the business community to develop new strategies for the optimization of research projects and patient care. It is this environment that has drawn pharmaceutical companies like Actavis, Aurobindo and Combino Pharm to Maltese shores.



## CRAFTS

Malta's dynamic tourism sector has sparked a renewed interest in its traditional crafts. The manufacturing sector has capitalized on this by regenerating the Ta' Qali Crafts Village to a 205,000 metre squared location, administered by MIP, and supported by the European Regional Development fund to the tune of 7.8 million euros. The new site is complemented by a smaller sister site on the island of Gozo at the Ta' Dbiegi Crafts Village. Tourists can now browse for Malta's famous embroidery, glass products, leather goods and filigree jewelry in a revamped setting. This is all part of the islands' overarching strategy to spur growth in traditional sectors in the economy while providing competitive frameworks for the advancement of new technologies.



## AI & MACHINE LEARNING

In the first half of 2018, the EU announced its ambitions to become the world's leading region for the development of Artificial Intelligence (AI). With its penchant for the early adoption of new technologies, Malta is leading the charge. In November of the same year, the island unveiled Malta AI, a taskforce combining industry experts, entrepreneurs and government officials who are working towards the creation of a national AI strategy and framework. Meanwhile, the University of Malta and the Malta College for Arts, Science and Technology (MCAST) are working to plug any skills gap by providing specialized programs centered around AI. The implications of this shift towards AI are far-reaching for not just manufacturing and financial services, but also for Malta's extensive green infrastructure projects, which work to preserve the islands' unique natural habitats, ecosystems and water resources while promoting a sustainable approach towards development.

# Shipshape

The sector that historically put the archipelago on the map is showing no signs of slowing down.



In 1809, Lord Byron's brief stint in Malta was by no means incidental. Located on one of the main commercial arteries of the Mediterranean, the archipelago had just nine years prior ceded its autonomy to the British Empire, one of many foreign powers from the Normans to the Phoenicians who recognized Malta's geostrategic importance. While much has changed since the poet arrived on the island, the archipelago's relevance in maritime affairs, shipping & logistics, remains. "Our country is blessed with natural harbours and ports that cater for a considerable number of merchant ships and cruiseliners," says Ian Borg, Malta's Minister for Transport, Infrastructure and Capital Projects.

In the last couple of decades, Malta has capitalized on its reputation to the benefit of both the wider region and the island's inhabitants. "The maritime sector locally contributes to 12% of the gross domestic product and it generates more than 23,000 jobs," he explains.

Things picked up considerably in 1988, when Malta Freeport was established as the Mediterranean's first transshipment hub. "We are always willing to give new technologies and ideas a chance," says Borg. Today, Malta Freeport remains the region's third largest transshipment and logistics centre, handling trade volumes of over 3 million TEUs, with connections to over 122 ports worldwide. "We started from zero and it has developed significantly to where we are today," says Marin Hili, Chairman of Hili Company, who worked at Malta Freeport for fifteen years.

In many ways, the Hili Company provides a case study for successful Maltese enterprises in the logistics and shipping space. While much of Malta Freeport itself is now primarily operated by Yildirim Holding, a Turkish container port operator, as well as Terminal Link, whose shareholders include some of the biggest shipping companies in the world, Mariner, a Hili Company subsidiary, retains operations at Malta Freeport as well as at Malta's second largest port, the Grand Harbour in Valletta.

In typical Maltese style, Hili Company has shown resilience and innovation in its reach and scope. With financial markets reporting the rise to power of the family office, theirs is also a tale of diversification of their portfolio encompassing investments in shipping and logistics as well as real estate, renewable energy and financial services. The company now has over 60,000 square meters of warehouse space in Latvia and runs extensive operations throughout the Baltic states. "We are not afraid of going into markets or businesses with old labour issues or other operational problems," Marin Hili explains. "One of our strengths is to transform businesses from old practices to new ones."

The marriage of tradition and transformation through innovation is, it seems, what Malta does best. Edward Hili, the group's CEO, speaks to how they invested heavily in technology to keep competitive and customer-centric in the regions in which they operate. "We were the first container terminal in EMEA to implement the latest Navis operating system at BCT in Latvia and have now completed implementation of that same system at our terminal in

Venice". Beyond their traditional businesses, Hili Company have moved into other high-tech market segments, as is the case with their renewable energy projects in both Malta and Croatia. Understanding the importance of sustainability and looking to play their part beyond Malta's National Renewable Energy Plan, Hili Company, much like their country of origin, is in constant evolution and in shipshape.

In 1811, in spite of his complaints regarding Valletta's urban planning, Byron found himself returning to Maltese shores. In a letter to a companion of his, he described the archipelago as his "perpetual post-office, from which my letters are forwarded to all habitable parts of the globe." Much has changed since the time of his writing, but Valletta's never-ending stairs and beauty, and Malta's status as a nodal point - a place where the world passes through - has not.

**"One of our strengths is to transform businesses from old practices to new ones."** - Marin Hili

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# The Only Way is Up

In June of 2018, Malta reported the price of real estate increased by an average of 19.9 percent, overtaking Hong Kong as the jurisdiction with the fastest growing house prices in the world.



**T**he island's skyline is populated by an impressive number of cranes as the government takes steps to deal with the demand for housing caused by the influx of new residents seeking a share in Malta's prosperity. "Foreign workers have increased over the last five years to 25% of the size of the population, so this has of course had an impact on real estate," explains Johan Buttigieg, Executive Chairman of Malta's Planning Authority. "In 2012 the amount of planning applications we had was about 2500. Today we are dealing with approximately 13000 applications per year."

While things can get noisy with the amount of construction work going on, it is the Maltese population that stands to gain. Homeownership amongst the island's locals are in the higher percentile. As new builds and Airbnbs spring up around the archipelago, landlords will benefit from a competitive tax treatment if they enter long-term rental agreements, with the government intent on controlling the speculation, also placing a 5% cap on price hikes.

"Island life comes with a number of unique advantages and disadvantages," says Ian Borg, Malta's Minister for Transport, Infrastructure and Capital Projects. "We are acutely aware of the fact that if we want to sustain our economic growth, we need a quality infrastructure that reflects the high quality of our other sec-

tors." Given the flurry of construction activity and the current rate of economic growth, it looks like things are on the up and up.

The property market in Malta doesn't look like a bubble either. With a relatively conservative approach to home equity loans, Maltese banks typically require down-payments in the region of 10 - 30 percent. While some observers have attributed the price hike to Malta's Citizenship by Investment Programme, the numbers in question are comparatively small. "We're talking 250 families per year," says Jonathan Cardona, CEO of the Malta Individual Investor Programme Agency. Still, as Cardona explains, over the past five years, the programme has brought in contributions of some €800 million, a large chunk of which is ring-fenced for Malta's sovereign wealth fund. This year, some €50 million were allocated towards the provision of 500 units of social housing.

Next up, the Maltese are thinking green. A fertile housing market may pay dividends for foreign investors and locals, but maintaining their quality of life is a priority for all. Karl Azzopardi of Malta Industrial Parks speaks of the need to grow green, "The plan going forward is focused on sustainability and promoting more green infrastructure". Buttigieg agrees "I think that the quality of open spaces should be a major priority... Ultimately everything we do, we do for the residents and citizens of Malta, so that they can have a better standard of living."

## Better planning for today and tomorrow



# Gozo: A World Apart

Long overshadowed by its larger sister, Malta, the island of Gozo is finally making its mark on both tourism and technology in the Mediterranean.



Home to 33,000 islanders, Gozo has long been known for its pristine villages, its archeological sites as well as the geological marvel that is its coastline. "More than half of the Gozan economy is based on tourism, but even with this, we're still diversifying," explains Justyne Caruana, Minister for Gozo. With the sizeable investments made by the likes of KPMG and Microsoft Malta in the island's new innovation hub, Gozo is fast becoming an indispensable part of Malta's technology landscape.



## Ggantija Temples

Any trip to the archipelago of Malta is incomplete without a visit to the Ggantija Temple complex, a UNESCO world heritage site sitting at the heart of the island of Gozo. Older than both Stonehenge and the Pyramid of Giza, the temples were built between 3600-3200 BC and are the world's second oldest man-made religious structures.



## Ramla Bay

Exchange the dramatic, wind battered coastline to the north for the calm, sandy beaches of Ramla Bay to the south of Gozo, arguably home to the island's finest beach. With ruins dating back to Roman times, the western side of Ramla Bay is reputed to house Calypso's cave, home to the siren that entertained Odysseus for seven years in Homer's epic Poem the Odyssey.



## Gozo North Coast

Marsalforn Bay, Gozo's most famous resort, is the perfect base to explore the island's world-renowned diving sites. For those staying ashore, the resort is just a stone's throw away from the wonderfully scenic patchwork quilt of salt pans covering some 3 kilometers of Gozo's coastline which have been in use for the past 350 years.

# Gozo Channel

With the notion of over-tourism becoming commonplace the world over, the Maltese government has been cautious to protect the island of Gozo, a near sacred land where the Maltese head for their great escape on weekends. With economic prosperity and the increase in Malta's popularity, it's no surprise Gozo is feeling the trickle-down effect, putting pressure on its ferries. With Gozo Channel, the island's ferry provider registering a ten percent growth in traffic per year for the past five years, Joe Cordina its Chairman, has expanded its remit in order to facilitate this growth. "We feel a social responsibility towards our residents - ferries must be running 24 hours, and our boats are now departing every half hour." Cordina explains. The traffic goes both ways, and with the innovation hub and industrial park, teaching hospital of Steward Malta coming online soon, Gozo Channel will be pivotal for education and tech as it is for tourism.

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**Next intake:**  
**3 December 2019**



Future of the workplace (1)

## Redesigning the office

The first of several articles about corporate digs examines three new offices in London that capture how the workplace is being reshaped

FOR CENTURIES businesses have settled inside the old walls of the City of London. Its geography is the same. But inside the Square Mile's temples of commerce the changes have been profound. At the start of the 20th century offices aimed to maximise efficiency by mimicking the factory layout with rows of supervised typists and clerks, as promoted by Frederick Taylor, an early American management consultant. In the 1960s less rigid *Bürolandschaft* ("office landscaping") made its way across the Channel from Germany. The 1980s ushered in "cubicle farms". Today open-plan offices and unassigned "hot desks" aim to flatten hierarchies and increase informality for many of the City's 400,000-odd white-collar workers.

A tour of three new offices in London illustrates the latest trends. Around 7,000 investment bankers are moving into the eight-floor, purpose-built European headquarters of Goldman Sachs, which has taken 18 years and £1bn (\$1.25bn) to develop. Nearby, a branch of WeWork, a troubled startup (see next story), rents out co-work-

ing space in an old City pile to 2,300 "members", each of whom enjoys half the space that Goldman affords, and at a third of the price. Down Threadneedle Street the finishing touches are being put on 22 Bishopsgate, a 62-storey "vertical village" where 12,000 workers will soon reside.

### Room for improvement

What happens in buildings like these matters far beyond their walls. The corporate office is an engine of global growth. Across 40 developed countries some 200m people, one-third of the workforce, toil at a desk. Britain's desk-bound workers take home 55% of all earnings. Technology and changing work habits are reshaping the life of desk-jockeys in the City and beyond—as well as that of their employers, who manage offices, and landlords, who own them.

Start with the landlords. Modern engineering allows developers to create better, more flexible spaces that tenants increasingly demand. Like everything else these days, buildings brim with technology. The Bishopsgate skyscraper will harvest 1m

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data points a day, to optimise use of resources such as air-conditioning, and offer glass that dims noise in open-plan offices. Now that lifts and toilets can be located on a building's periphery rather than its central shaft, entire unobstructed floors are being built. Architects are told to enable staff to mix on floors and between them to foster creative thinking; staircases are now places to meet, not just something you walk down in a fire drill.

This allows developers to offer flexible spaces that tenants can adapt over the course of a 15-year lease. Goldman's London home—which it developed and then sold and leased back for 25 years—is designed so that some outside walls can be removed and half the space sub-let should it reduce headcount in the event, say, of a chaotic Brexit. At 22 Bishopsgate tenants will have access to 100,000 square feet of flexible space run by Convene, a rival of WeWork.

All this means that landlords should expect to spend more keeping their buildings up to scratch, says Peter Papadacos of Green Street Advisors, a real-estate research firm. This may reduce the rental yield on offices from 5% today to perhaps 4%. More companies are fearful of being locked into new 10-15-year leases at a time when automation and the rise of temporary jobs make it hard to forecast future headcount. Some firms are opting for co-working spaces rather than leasing directly from traditional landlords. Co-working ►►

► firms now account for about 5% of office space in London and New York. Most of their clients are small businesses. But HSBC, a big bank, will occupy 1,100 desks in WeWork's new 6,300-desk London branch.

The landlords can still count on the co-working companies themselves to sign long-term leases. But they worry about the prospects for these leaseholders. Trouble at WeWork, which has lost over \$2bn since the start of 2018 and is struggling to show it has a viable business model, is adding to the uncertainty. Either way, observes Nick Wright of CBRE, a consultancy, the old landlord-tenant model is being shaken up.

Life is changing for corporate tenants, too. Typically, companies with tens of thousands of employees will own their headquarters and take out leases for branch offices. Over time these obligations are substantial. Among 75 big listed service-sector companies in America and Britain, lease commitments over the next decade or so amount to \$146bn. Annual rental costs amount to \$5,000 per employee. Absenteeism and the constant flow of people mean that just 40-50% of desks are actively used during working hours. This inefficiency constantly draws bosses to try to save office costs, especially in a downturn, although the reality is that office spending makes up only a tenth of property and headcount costs, with the rest going on workers' wages. Despina Katsikakis of Cushman & Wakefield, a property consultancy, warns that such stinting by firms can have an adverse effect on the wellbeing of their employees.

To optimise office use without killing morale, Goldman is therefore giving staff at its new London building options about where they work—at unassigned desks, private rooms and informal hangouts. Even the bank's 100 or so partners now occupy offices that transform into meeting rooms when they are away. Such manoeuvres, the company says, have increased desk occupancy by about 20%. Even in places without 22 Bishopsgate's anti-din technology, open-plan offices are easier to bear for distractible employees thanks to noise-cancelling headphones. As a result, companies need less space to accommodate the same number of workers.

According to the British Council for Offices, an industry body, space per desk in Britain has fallen by 10% over the past nine years, to ten square metres. "We don't like the idea of animals in pens, but we've been happy to have people in them", says Sir Stuart Lipton, the developer of 22 Bishopsgate. As companies reach the limits of densification, they must compensate cramped staff—the final group affected by the changing workplace—in other ways. WeWork, whose desks are a third smaller than a typical office worker's, provides renters with ample space to drink nitro coffee, con-

duct impromptu meetings or play ping-pong. Offices have traditionally set aside just 3-4% of floor space for such fripperies. Occupiers now expect developers to provide at least double that amount of space. Staff in Bishopsgate have access to a climbing wall on the 25th floor (see picture on previous page). Goldman employs "workplace ambassadors" on each floor, who are responsible for staff welfare.

Office improvements are designed to make white-collar employees—and prospective recruits, many of whom expect to be coddled—feel fitter, happier and, employers hope, more productive. About 10% of a firm's wage bill is lost to sick pay. A Harvard University study demonstrated that improving the quality of air, as Goldman and 22 Bishopsgate do, can boost occupants' cognitive function. Access to natural light has also been shown to improve productivity. While a study by Andrew Oswald of the University of Warwick finds that productivity increases by 12% when people are happier. Unilever, a consumer-goods company, estimates that \$1 invested in its "wellness programmes" returns \$2.50 to the company. Goldman says that moving staff into new offices in other countries has improved their employees' perception of their own productivity (it did not measure actual output).

There is work to be done. A recent worldwide survey of 600,000 office staff by Leesman, a data provider, found that 40% thought their office prevents them from working productively. Hot desks can be a curse (see *Bartleby*). London's three new offices are not the last word in workplace management and architecture. But they offer a glimpse of the foreseeable future. ■

## Future of the workplace (2)

# WeWorry

NEW YORK

## Would an overvalued office startup's implosion pose a systemic risk?

**E**ARLIER THIS month WeWork delayed its initial public offering (IPO) after it became clear that the co-working firm would fetch as little as one-fifth of its latest private valuation of \$47bn. Prospective investors began to question its poor governance, lack of transparency, reckless expansion and lack of economies of scale. The company, which has lost \$1.4bn in the first half of this year, desperately needs cash. Public markets, creditors and venture capitalists, whom WeWork's dreamy co-founder, Adam Neumann, has infatuated for years, appeared unwilling to hand over any more unless something changed. This week



Would you buy stocks from this man?

something did: Mr Neumann agreed to step down as chief executive. Will this be enough to avert WeWork's slide towards possible bankruptcy? And would its implosion have consequences, other than to leave its backers out of pocket?

Start with WeWork's prospects. The company has around \$2.5bn in cash—about as much as its combined loss in 2017-18. If it continued to burn through this pile at the current, even faster rate, it would run out of money in under a year. The resignation of Mr Neumann, whose name appears 169 times in the company's IPO prospectus, may be intended to signal a shift away from his quest for growth at all costs towards more responsible stewardship of capital. If that results in smaller losses, investors may loosen their purse strings. But this outcome is far from assured. Mr Neumann remains on the board as non-executive chairman. And a new, humbler version of WeWork may seem a less appealing proposition than his grandiose vision.

A collapse, then, is not out of the question. It would be felt beyond the firm and its investors. First, WeWork's troubles dim the prospects for other overvalued startups and their venture-capital backers, notably SoftBank (see *Schumpeter*).

Second, holders of its \$669m in junk bonds might take a hit. Big known ones include Lord Abbett, an investment firm, which lent WeWork \$44m, and Allianz, a German insurer, with some \$21m in exposure, according to Bloomberg, a data provider. But \$669m is a drop in the \$9trn bucket of America's stock of corporate bonds. Any spillover into broader financial markets would thus be limited.

More troubling, some financiers and regulators fret that WeWork and fellow co-working companies may threaten financial stability. Eric Rosengren, president of ►►

## Bartleby Hot desk, cold comfort

Office design that treats workers like drones

**T**HE HERO of “The Prisoner”, a cult British TV show, wakes up one day in a mysterious village. His possessions have vanished and he is not referred to by his real name but as “number six”. His every attempt at escape is frustrated and each episode ends with a set of iron bars superimposed on his face.

The experience of the Prisoner will be wearily familiar to one class of office worker: those who undergo the daily trial of “hot-desking”. Every day, they may wind up in a new location, with only the possessions they can carry to sustain them. At the end of each day, all trace of their personality is erased, in the way that the Soviet Union removed pictures of Leon Trotsky from the historical record. It is hard to think of a clearer indication that the individual worker is being treated as an anonymous drone.

At one leading financial institution, any employee who accidentally leaves a possession on their desk overnight must try to retrieve it from Lost Property in the morning. That makes the end of each working day feel like the last frenetic minutes before you leave the house for a holiday, frantically checking that you haven’t left anything behind.

The start of the day can be stressful, too. A survey of British workers, published in June, found that those in a hot-desking office took an average of 18 minutes to find a seat. That translates into 66 wasted hours a year. In some offices the temptation must be to get in early to grab the best places, like holiday-makers placing towels on the poolside chairs before breakfast. In other workplaces some seats will be tacitly reserved for those with seniority; who would dare sit in the seat of the person who decides your work rota?

It is hard to see how anyone will be

well-motivated by such an arrangement. If companies want employees to have bright ideas, it helps if they feel comfortable at their desks. And people are likely to feel most comfortable in familiar surroundings. Hot-desking is usually linked to another design feature: the open-plan office. The professed aim may be to promote team working, but it does not necessarily work. A study published last year found that face-to-face interactions declined in open-plan offices and the use of emails rose after companies had switched from more traditional layouts.

Bartleby will admit that his own desk is a byword for clutter. Along with the surrounding area, it is covered with books he has enjoyed and wants to keep; books he has started to read and ought to finish; books that he genuinely means to read soon; and books he will probably never read but feels too guilty to throw away. In addition, there are academic papers and magazines that fit in the same categories. Arnold Schwarzenegger would struggle to carry all this home and back every day.

Were *The Economist* to become a hot-



desking hub, all this stuff would be kept at home or thrown away. And with it would go those moments of serendipity, when a news story or press release sparks the memory of a similar tale in a book or magazine that is close at hand.

Of course, a lot of people find it impossible to work in the midst of such clutter. And there is nothing to stop them from keeping their own desks as tidy as they like. But hot-desking is not becoming more common because it is popular with workers. A survey by Workplace Unlimited of employees who worked in a range of office types found hot-desking was ranked fifth out of six office designs (perhaps surprisingly, private offices were ranked last).

The growth of hot-desking flows from the growing number of businesses that use hordes of freelance workers and contractors. Assigning them a permanent desk is not practical. The same may be true for those who work from home two or three days a week or are constantly on the road, visiting clients. By reducing office space, hot-desking saves employers money; the average annual property cost for a British office worker is £4,800 (\$6,000), according to Investment Property Databank.

But freelancing and part-time work are not yet the norm. The risk is that, in the name of cost-cutting, hot-desking is imposed on full-time employees, who would prefer the certainty of a permanent work station. Your cosy desk will become as spartan as a monastic cell. Workers should echo the Prisoner and bellow: “I’m not a number. I’m a free man. And here is a pot plant, a novelty coffee mug and a framed picture of my kids to prove it.”

[Economist.com/blogs/bartleby](https://www.economist.com/blogs/bartleby)

► the Federal Reserve Bank of Boston, told an academic conference on September 20th that “this new model for offices has the potential for a run on commercial real estate”. First, he observes, co-working firms generally acquire long-term leases for office space that they lease out for shorter durations to small companies. Smaller firms are more vulnerable to a recession—and, by relying on them for revenue, so are the co-working firms. Next, co-working firms often put leases for individual locations in special-purpose entities that prevent landlords from making a claim on the co-work-

ing firms’ entire balance-sheet if they fail to pay the lease. Finally, the argument goes, if landlords are hit, their banks might face losses on loans to them.

But special-purpose vehicles are nothing new in the office-rental industry. Most property-owners “have already priced in the fragility”, says Joseph Pagliari of the University of Chicago’s Booth School of Business. Big corporations, which are less likely to be felled by a recession, now account for some two-fifths of WeWork’s leases. WeWork’s prospectus did reveal some \$47bn in lease obligations globally; if

WeWork went belly up tomorrow, its counterparties would be hit. As with its debt, though, that big number is still just a fraction of \$14trn-17trn in commercial-property leases in America alone. True, flexible workspaces account for 8% of new commercial leases in America. But when assessing systemic risk it is the stock that matters most. Colliers, a property-management firm, puts this at just 1.6% of all office space in the top 19 cities in America in mid-2018. Even if WeWork proves a house of cards, it should not shake the foundations of America’s financial system. ■

## Corporate tax

## In the dock

**The EU has clobbered corporate tax evaders. Will the courts back it up?**

MARGRETHE VESTAGER, the steely Dane who forged her global reputation by waging war on Silicon Valley tech firms and corporate tax dodgers, was offered a rare second term as the European Commission's competition tsar earlier this month. However part of her legacy is now under intense scrutiny as tax-shy multinational companies try to contest her tough-minded tax-rulings.

The most well-known of these is her demand that Apple repay a huge €13bn (\$14bn) sum to Ireland, which the EU's General Court is still chewing over. But two other judgments offer a sense of whether the courts will back up her mission to revolutionise the taxation of multinational companies in Europe. The cases are complex, but the overall message from the judiciary to Ms Vestager is "proceed—but with caution, because the court is watching," says Pablo Ibáñez Colomo at the London School of Economics.

The first case involves Starbucks, which Ms Vestager ordered in 2015 to cough-up some €30m (\$33m) in unpaid taxes in the Netherlands. She had argued that the existing tax arrangements the coffee-seller had set up with the Dutch government's approval involved transactions between the firm's subsidiaries that did not take place at arm's length using market prices.

The General Court upheld the principle that Ms Vestager was entitled to insist on arm's length treatment. But it found that she was not entitled to stipulate the precise methodology that countries use. As a result it overturned Ms Vestager's ruling. Starbucks was able to raise a Pumpkin Spice Latte in victory and low-tax states fearing a stealthy attempt to harmonise European tax policy heaved half a sigh of relief. But the big picture is that the ruling actually helps establish the EU's right to insist on market-based tax arrangements, which big firms will hate.

The second case was a straight win for Ms Vestager. In 2015 she ruled that Fiat Chrysler (whose chairman, John Elkann, sits on the board of *The Economist's* parent company) should pay up to €30m in Luxembourg, because its arrangements did not match economic reality. The General Court upheld this decision. The carmaker may now appeal to the European Court of Justice. Mr Ibáñez Colomo reckons its odds of success are less than 50%.

Brussels-watchers and executives in

## Television

## Enthusiasm curbed

Viewers love Netflix and HBO. Investors are getting antsy

IF CRITICAL ACCOLADES were the sole measure of well-being, Netflix and HBO would be in great shape. At the 71st annual Emmy Awards, held on September 22nd, the two accounted for three of the eight nominees for Outstanding Drama series, and two of the seven for Outstanding Comedy. Yet though content may be king, both companies are facing angry crowds wielding pitchforks.

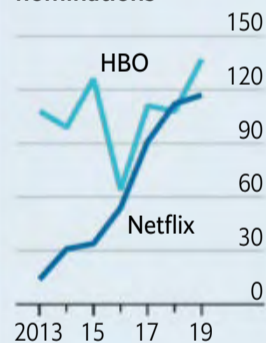
Netflix has long framed its aggressive spending as part of a strategy to dominate people's leisure time, but investors' patience is being tested (see chart). Total returns have tumbled. Subscriber numbers in America fell earlier this year for the first time since 2011. Undeterred, Netflix keeps splurging on original and licensed content. It reportedly paid over \$500m for the rights to "Seinfeld".

Though HBO is widely considered to be the most profitable boutique network in America, its parent company, AT&T, is under fire. Elliott, an activist fund with a \$3.2bn stake in the conglomerate, has taken aim at AT&T's strategy, including a recent acquisition spree. After splashing out on DirecTV, Time Warner (which owns HBO) and other assets, AT&T sits on over \$170bn of debt, far more than any other company in its industry.

Both Netflix and HBO face stiffer competition. Disney, Comcast (via its NBC subsidiary) and Apple plan to launch streaming services within the next year. "Fleabag", co-produced by Amazon, bagged the Emmy for best comedy series. With over 500 scripted series being released each year, this battle for leisure time will make for gripping viewing.

## Show down

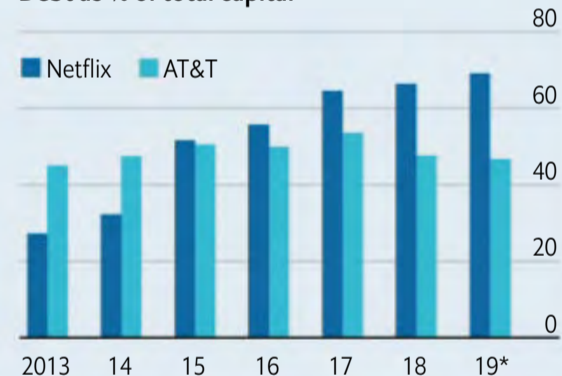
Emmy nominations



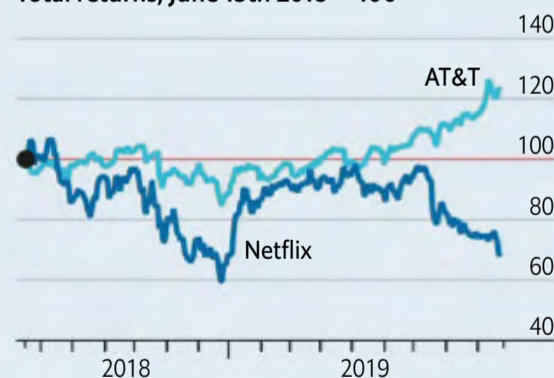
Emmy primetime awards



Debt as % of total capital

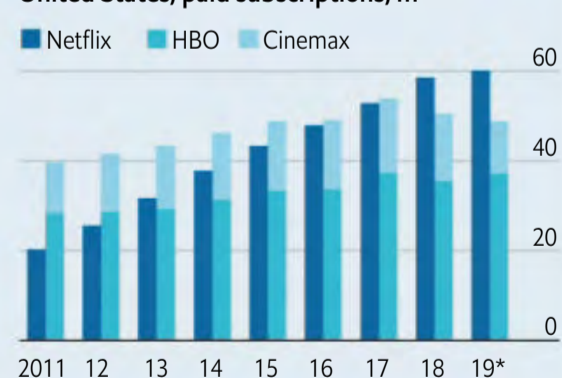


Total returns, June 15th 2018†=100



Sources: Television Academy; press reports; Kagan; company reports; Datastream from Refinitiv

United States, paid subscriptions, m



\*Q2 †AT&T's acquisition of Time Warner completed

Cupertino, California will inevitably wonder what clues the judgments might give about the General Court's deliberations on Apple. The technical answer is not many. The Starbucks and Fiat cases were about transfer prices between firms' subsidiaries, whereas the iPhone maker's case is about how its vast profits are allocated between its subsidiaries.

Nonetheless the mood music now is

that while Ms Vestager may lose some battles in the courts there is little sign so far that she is about to lose the war. Indeed she continues to open up new cases—in January, for example, she announced an investigation into the tax treatment of Nike in the Netherlands. In the confrontation over tax between big business and Ms Vestager, neither side is likely to roll over any time soon. The stakes are too high. ■

## Fine wine in China

## In the vanguard

PENGLAI

## Château Lafite cracks open its first Chinese vintage

SEA BREEZES, blue skies and sun-soaked vines: springing to the reader's mind may not be the northern Chinese province of Shandong, an industrial heartland of shipbuilders and oil refineries. Yet it pumps out two-fifths of China's wine, too. Yes, much of it is state-produced and lousy—but there are a few glowing exceptions. Among the 63 wineries of the Penglai valley is that of Château Lafite Rothschild, a world-famous Bordeaux beloved of rich Chinese. On September 19th it uncorked its first local bottles.

Scepticism abounded when its owner, Domaines Barons de Rothschild, put down roots a decade ago. (A branch of the Rothschilds owns shares in *The Economist's* parent company.) "Lafite in lala land?" wondered Grape Wall of China, a wine site. Midsummer monsoons drench the region, a no-no for sophisticated growers.

Lafite confounded the naysayers, as a tough reporting trip undertaken by this correspondent, for a tasting and tour with the Rothschilds at *la propriété*, confirmed. Priced at 2,388 yuan (\$335) a bottle, the Domaine de Long Dai 2017 was rated as "outstanding" by James Suckling, a wine critic who says that Lafite has built "what must be the best winery in China". It contains cabernet sauvignon, cabernet franc and merselan. The range of soils and microclimates across 360 hillside terraces makes it one of Lafite's "haute-couture" vineyards, says Olivier Trégoat, who oversees its plantations outside Bordeaux.

Saskia de Rothschild, who runs the family's wine business, says that they are "planting for a century". It lost its local partner, CITIC, an investment giant that, under state direction, has pruned what Mr Trégoat calls its "exotic divisions". Lafite flew 250,000 vine stocks over from France and planted them on 30 hectares. It says that it has acquired land-usage rights for 50 years.

The vintners of Moët Hennessy Louis Vuitton, another French producer, launched "Ao Yun" two years ago for a splashy 2,800 yuan, produced on their Yunnanese terroir. They export most of it. But Lafite wants to sell four-fifths of its 30,000 bottles domestically. Ms de Rothschild points to "rising pride" in home-grown produce. Lafite is among the most faked wines in China, so the capsules on its Long Dai bottles conceal chips to allow buyers to authenticate a bottle using their



Cépage de Shandong

smartphones.

A local foothold may also help sustain a label that no longer sends Chinese into bacchanalian frenzies. Imports of Bordeaux last year fell 31% by volume compared to 2017. Australian wines are now neck-and-neck with French ones for the first time. At a bar in Shanghai, a lifestyle blogger says between sips of Australian shiraz that as more Chinese travel overseas they have come to love plenty of other for-

eign wines. At a nearby table, businessmen quaff Bordeaux—though none is tempted to buy chinois Lafite.

Will rivals follow it? Aurélien Valance of Château Margaux says charitably that the idea is "interesting", but that Margaux wants to "maintain integrity" by producing in France. Chinese collectors tend to open and enjoy their bottles, he adds, so their cellars are still fairly empty. As Lafite knows, plenty are jostling to fill them. ■

## Chinese drugmakers

## A rising star

BEIJING AND SHANGHAI

## China's pharmaceuticals industry is growing up

THE GLEAMING campus of BeiGene, a biotechnology company in Beijing, has all the trappings of a well-heeled research laboratory. They include screening machines to test the 500,000 compounds in BeiGene's library, its animal-testing quarters with 10,000 creatures—and Wu Xiaobin, who last year left a job as Pfizer's head for China to run the Chinese firm's domestic operations. Signs of expansion are all around—especially for research on cutting-edge treatments that include gene and cell therapies. The number of scientists working on such drugs has almost doubled since last year; more are being hired. Fresh lab space has replaced old offices.

BeiGene, founded in 2010, is emblematic of China's fast-changing pharmaceuticals industry—in more ways than one. On September 5th a New York asset manager alleged that it had inflated its sales fig-

ures—a sign of distrust of an industry with a historically well-earned reputation for shoddy quality and shady business practices. The company, which is listed on America's Nasdaq stock exchange, denies wrongdoing. Investors seem to believe it: its share price has recouped half of the 17% drop precipitated by the accusations.

Markets' optimism is doubtless fuelled by the huge promise of China's pharmaceutical industry. In 2016 the country became the world's second-biggest drug market. In 2018 sales reached \$137bn, doubling in just six years. They are projected to be worth half of America's by 2030, up from a quarter now. Much of this will come not from foreign drugmakers but domestic ones. At the same time, Chinese firms, which have historically produced copycat drugs for domestic use, will increasingly sell innovative treatments for everyone, like those ▶▶



▶ being developed by BeiGene.

The industry's makeover was set off by growing alignment of China's drug regulation with international standards. Speedier drug-approval processes rolled out in 2015 are modelled on America's. Regulatory oversight of clinical trials is converging with Western norms. About 3,000 applications for me-too drug approvals were withdrawn when the government announced the new rules, winnowing out many flaky firms. Starting in 2017 medicines have been able to get approved in China on the strength of clinical trials abroad.

At the same time, consolidation of drug procurement by state hospitals that began in 2015 squeezed the bloated prices of generic drugs. By one estimate, this freed up \$30bn a year for pricier medicines such as the newest cancer drugs. Some 400m Chinese now have health-insurance plans that cover these.

Chinese drug companies are pouring money into research—and researchers. China's legions of science graduates, including returnees from top foreign universities and Big Pharma labs, where they discern a glass ceiling, are sharpening its edge in medical innovation. Around 250,000 Chinese returnees who have come back since 2013 work in life sciences.

### A drug-fuelled high

The booming domestic market for high-end drugs has created a similarly frothy one for their makers. Franck Le Deu of McKinsey, a consulting firm, calls it a "Cambrian explosion". In 2018 venture-capital and private-equity investments in China's biotechnology firms reached \$17bn, according to ChinaBio, a consultancy. Most of it came from local sources. The medical zone of Shanghai's Zhangjiang Hi-tech Park, one of China's biggest, houses more than 1,000 companies—about ten times the number a decade ago.

China's biotech sector is just 12% of its overall drug market, half the global average of 25%. Most Chinese firms are young, and yet to turn a profit. But they are growing fast. Five of the world's ten biggest biotech initial public offerings in the first half of this year were of Chinese companies, which collectively raised \$1.6bn. To lure star startups away from New York and London listings, last year Hong Kong's stock exchange relaxed its rules to allow pre-revenue biotech firms to go public there.

Although they often started out licensing foreign drugs, either approved or in late-stage development, for the domestic market, Chinese firms soon set up their own drug-discovery programmes. These days they have global ambitions from the start, says Mr Le Deu—with eyes on the lucrative American market. Several are running late-stage clinical trials there and in Europe. In 2018 Chinese companies started

26 multiregional clinical trials, up from four in 2013. BeiGene is running over 60 international ones. China's first home-grown cancer drug, discovered by Chi-Med, is in clinical trials in America. In 2017 China overtook America in clinical trials of novel treatments that reprogramme patients' immune cells to fight cancer.

For now, most high-end drugs germinating in China are "me too" or "me better" ones that mimic existing therapies. Breakthroughs that yield drugs with a novel mechanism of action remain sporadic. Translating Chinese basic science into treatments at university research laboratories—the incubators for biotech start-ups in Western countries—is in its infancy, says Shan He from Sanford C. Bernstein, a research firm. But it is only a matter of time before China begins to rival America and Europe in this area. Chang Lee of Parexel, an American clinical-research contractor, reckons it could happen before 2030.

Chinese drug innovation may put pressure on the exorbitant prices of new medicines in the West. Some biotech firms sell advanced drugs for 70% less than Western equivalents. Marc Funk, chief executive of Lonza, a Swiss contract manufacturer of drugs which is opening a new facility in Shanghai, insists this is happening "without compromising quality".

President Xi Jinping wants the overhaul of Chinese pharma to proceed apace. It is part of his "Made in China 2025" strategy for global leadership. One drugs executive in China says that the government's main motive for overhaul, as with many reforms, is to preserve social stability as more patients ask why highly effective drugs for their illnesses that are used in America are not available in China. Two weeks after the release last year of "Dying to Survive", a hit movie inspired by the real-life story of a

leukaemia patient, China's prime minister, Li Keqiang, urged regulators to get cheaper cancer drugs on sale more quickly.

Progress may hit several obstacles. One worry is the sheer number of Chinese biotech firms that have piled into cancer treatments. A shakeout is imminent once they start releasing results from late-stage trials. Some drugs will flop once they start selling, as happens in a competitive market. The big worry is that Chinese investors may flee biotech altogether when things go awry for one or two firms. They still have a lot to learn about how the biotech business works, says Nisa Leung of Qiming Venture Partners, a big investor in Chinese health-care. They overvalued some of the first biotech startups that went public in Hong Kong—only to see their share prices fall. Leading Chinese firms like Chi-Med and Zai Lab, as well as BeiGene, have listed their shares in New York or London, with their veteran biotech investors. But not all firms have that option.

### Pills and spills

The second big risk is China's fragile drug-making infrastructure. Although many clinical-trial sites are up to global standards, some are not. Immunotherapies are more difficult to make than the small-molecule compounds in traditional pills and injections, so the risk of faulty batches is greater. Political pressure like that from Mr Xi or Mr Li could make companies and regulators cut corners. Unlike in mature Western markets, a single quality scandal could shatter the credibility of the country's entire biotech industry, says Mr Le Deu.

Such teething pains are unavoidable in a complex industry taking hold in a developing economy. If their makers can withstand them, drugs will move from being "Made in China" to being invented there. ■



Bright prospects

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# Schumpeter | The entrepreneur's new clothes

*Some venture capitalists are living in a world of make-believe. Thank goodness for stockmarkets*



UNTIL RECENTLY the image of an entrepreneur was of a thrifty workaholic toiling away in a garage. Then came the “founder”, as epitomised by the flowing-haired Adam Neumann of WeWork, an office-subleasing firm dressed up as a tech giant. More emperor than entrepreneur, he wanted not merely to start a business but “elevate the world’s consciousness”. He sought limitless funds. He broke norms. And he generated losses as fast as he raised revenues.

He was not unique. Like other charismatic founders, such as Travis Kalanick, co-creator of Uber, a ride-hailing service, he tripped over his own billion-dollar ego. On September 24th Mr Neumann was ousted as chief executive of WeWork’s parent company, by his board, including his backers at SoftBank, the Japanese group, and its \$100bn Vision Fund, which together own 29% of its shares. Days earlier the company’s initial public offering (IPO) was postponed because of weak demand for its shares and the *Wall Street Journal* reported that he smoked pot on private jets. He will be replaced by two co-chief executives.

In such cases, attention invariably focuses on the founders’ hubris. Their rise and fall is the stuff of bestsellers. But it is the venture-capital industry that helps spin the invisible yarn that creates the legends. Some of its biggest names, such as SoftBank, have been peddling valuations of companies like WeWork that border on the absurd. In their competition to fund the biggest deals, they have been in thrall to founders’ excesses, rather than providing sober adult supervision. Good, then, that exposure to the dowdy stockmarket is at last knocking sense into Silicon Valley’s money-men (for they are mostly male).

The folly begins with a sound idea. Startups need scale to become global champions. Thanks to the internet, ideas spread quickly. Because of network effects, the more people use a service, the better it gets. The fastest-growing firms, like WeWork and Uber, “blitzscale”, meaning they attempt to disrupt a whole industry before anyone can stop them, raising fortunes to acquire users. The pioneers of this, such as Facebook in America and Tencent in China, have become so valuable that everyone wants to emulate their success. At its height this year, WeWork was valued at \$47bn, a staggering amount for a company which last year lost \$1.9bn on revenues of \$1.8bn. That is more than ten times the market capital-

isation of 1WG, a rival with bigger sales—and a profit to boot.

When venture capitalists jostle with each other to write cheques of \$100m or more on a daily basis, it goes to a founder’s head. As is now common in Silicon Valley, Mr Neumann demanded more power for himself and his heirs via supervoting rights. He engaged in potential conflicts of interest, listed in the firm’s IPO prospectus. The mountain of venture money available, including from mutual funds, enabled his firm to stay private for nine years, almost three times longer than the average tech startup in 2001. It entrenched bad habits.

When the firm tried to go ahead with an IPO, it ignored the implicit bargain of the stockmarket: that investors give companies capital in exchange for some influence. Mr Neumann sought to keep absolute control by having shares with ten times the voting rights of other shareholders. Rather than buying into a company run by a messianic overlord with an insatiable demand for cash, investors balked. A red-faced SoftBank lost faith in Mr Neumann. He will lose his majority control (but remain co-chairman).

The saga will have three ripple effects: on fundraising, governance and the wider economy. Startups with no recognisable route to profitability will find it harder to get cash. Even before WeWork’s fiasco the taps were being tightened. In China the average volume of venture-capital deals has fallen from \$28bn a quarter last year to \$1bn a quarter this year, according to Prequin, a data provider. In America they fell from \$32bn in the second quarter to \$23bn in the third. Blitzscaling may become a dirty word. Cash-burning firms yet to join the rush to IPOs, such as micro-mobility ventures Bird and Lime, may find themselves stranded like their ubiquitous e-scooters. As regulators look increasingly askance at Big Tech, the very notion of blitzscaling raises competition and other concerns, which will make public investors yet more queasy. California’s recent efforts to categorise drivers for gig-economy firms as employees rather than contractors has added to the post-IPO sell-off of Uber and its rival, Lyft.

Second, as money dries up, the balance of power may shift from the founders to investors, reducing the tolerance for supervoting shares and crony boards. It will be tough. Governance remains dull as ditchwater in Silicon Valley—until something goes wrong. No one wants to crush a creator’s zeal.

Lastly, business at large will feel the impact. It may doom Softbank’s efforts to raise a second \$100bn-plus Vision Fund to replicate its earlier one, which invested in companies like Uber and WeWork. Bulge-bracket banks like JPMorgan Chase and Goldman Sachs, which were to lead WeWork’s abortive IPO, may end up looking gullible. Commercial-property markets may wobble as WeWork curbs its appetite for office space. For a while at least, there could be fewer of the breathtaking innovations such as ride-hailing that have transformed cities around the world.

## WeWill and WeWon’t

That is not to say entrepreneurs or IPOs are gone for good. Shares of newly listed software firms that crank out at least some cash, such as Zoom Video Communications and Datadog, have rocketed this year. Airbnb, a lodging site with positive EBITDA, still makes investors swoon. The salutary lesson is that the public markets are doing their job, rewarding firms that generate cash or profits, shunning those that do not. After years in which venture capitalists have cast themselves as infallible arbiters of value, it is good to see public investors shouting when an entrepreneur, for all hischutzpah, has no clothes. ■



## Europe's economies

## The dip deepens

**Policymakers prayed the slowdown would be temporary. Instead it is intensifying**

“SIMPLY AWFUL” is how Phil Smith of IHS Markit, a data provider, describes the latest survey reading of Germany's manufacturing output. For months the purchasing-managers' index has languished below 50, indicating contraction. An early release published on September 23rd showed it had slid to 41.4, signifying the sharpest decline in manufacturing activity since 2009. The services sector also lost momentum—for the first time in over four years, managers said they were winning less new business.

A slowdown in Germany's economy that started a year ago was initially expected to be short-lived. But the gloom has deepened. Output shrank in the second quarter, and many economists, including those at the Bundesbank, think it is still contracting—satisfying the definition of a recession. As a consequence, the euro zone seems set barely to grow.

Global trade has moderated, and with it industrial activity across Europe. The continent has suffered collateral damage in the trade war between America and China. But

there are other reasons for its woes. Take Germany's exports to both countries, for instance. Carsten Brzeski of ING, a Dutch bank, points out that these have held up better than exports to other markets. Brexit-related uncertainty means that exports to Britain have taken a bigger hit. Even so, researchers at the European Cen-



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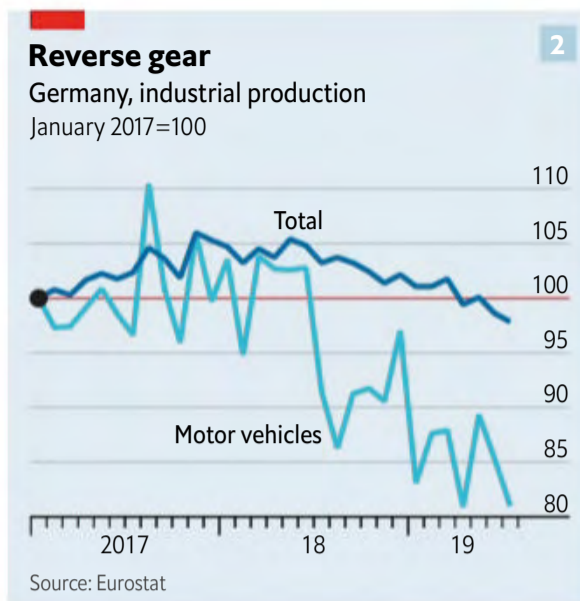
— Buttonwood is away

tral Bank (ECB) find that external causes explain only around a third of the decline in the euro zone's industrial production over the past year. The rest of the trouble originates within the currency union.

Much of it appears to stem from supply disruptions in Germany. Its manufacturing sector has taken a much more severe beating than those of France, Italy or Spain (see chart 1). Oliver Rakau of Oxford Economics, a consultancy, reckons that stalling car production alone explains nearly half of the fall in Germany's industrial output in the second quarter. Once the effects on the rest of the supply chain are added, it might explain as much as three-quarters. Distracted by the fallout from the emissions-cheating scandal, and by new emissions-testing procedures, carmakers delayed production and postponed new models.

Surveys suggest that European demand for cars is holding up well. Mr Rakau thinks that Germany's carmakers should recover market share as they launch new models in the autumn and work off a large backlog of orders. But the risk is that the country's auto giants struggle to regain ground lost to foreign competitors. Meanwhile, trade headwinds could strengthen and fears of protectionism could deter companies from investing. Economists are downgrading expectations for economic growth in 2020 in both Germany and the euro zone.

The silver lining so far has been that the domestic economy was on an upswing. Unemployment rates have returned to pre-▶▶



crisis lows, and pay is growing at its fastest pace in a decade. But on September 23rd Mario Draghi, the head of the ECB, told members of the European Parliament that the longer the manufacturing slowdown continued, the more likely that the rest of the economy would follow. Analysts at Capital Economics, a consultancy, recently said that services such as technical support and logistics that are exposed to manufacturing are already decelerating.

The ECB's decision on September 12th to launch a package of easing measures, including cutting interest rates and restarting asset purchases, might thus seem well-timed. But since then the heads of several national central banks, including France's and Germany's, have said that restarting bond-buying is unnecessary. Klaas Knot, the head of the Dutch central bank, went as far as releasing a statement describing the ECB's stimulus package as "disproportionate". Mr Draghi fretted to EU parliamentarians that outspoken dissent risked undermining the bank's pledges to keep interest rates low and to continue with asset purchases until it achieved its inflation target. On September 25th Sabine Lautenschläger, a member of the bank's executive board, resigned unexpectedly, even though her term expires only in 2022. She gave no reason for her decision, but is known to have opposed restarting asset purchases.

It is thus even more important for national governments to heed the ECB's oft-repeated pleas, and do more to counter the slowdown with fiscal stimulus. That government-bond yields in many countries are sub-zero bolsters the case. On September 17th the Netherlands took a tentative step in that direction, announcing tax cuts amounting to €3bn (\$3.3bn, or 0.3% of GDP), and promising to publish plans next year for a public-investment fund. Germany pledged spending measures to cut carbon emissions (see Europe section), though these are fiscally neutral. It will take even more dreadful data releases for Europe's politicians to stop trying to balance the books at the expense of growth. ■

## American stock exchanges

# Flash boys in the pan

## An iconoclastic stock exchange loses a battle—but not yet the war

TECHNOLOGY HAS robbed stock exchanges of their theatrics. Opening days are an exception. Blue-chip firms listing on Nasdaq, America's second-biggest exchange, get an hour of exclusive advertising on its tower in Times Square. On the New York Stock Exchange (NYSE), the biggest, they earn the right to be deafened by a bell above a 116-year-old trading floor.

Yet behind the pageant, competition for listings is cut-throat. Last year Nasdaq snatched 18 listings from NYSE; six went the other way. Now Investors Exchange (IEX), an independent upstart created in 2012, is giving up the fight. On September 23rd it said it would shut its listings unit to focus on trading and new services. "We've spent many, many, many hours flying around the world trying to educate companies," says Brad Katsuyama, its boss. "The return on our efforts was not where it needed to be."

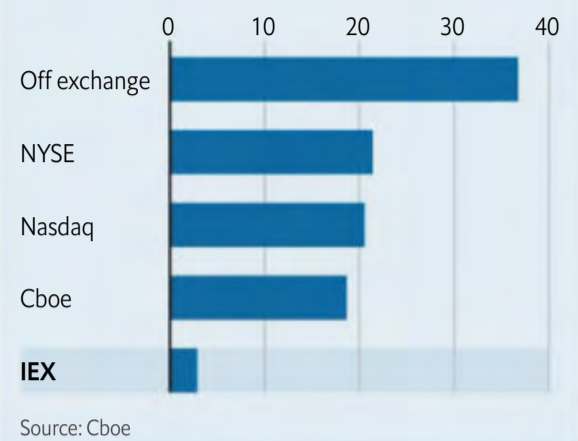
Under America's equity-exchange duopoly, Mr Katsuyama argues, retail investors pay too much for data and a fast connection, and are outpaced by high-speed traders' algorithms (Cboe, the third-largest, focuses on exchange-traded funds). IEX's fees, he says, are fair and simple by comparison. It also routes orders over a "speed bump", a coil of fibre-optic cable that slows access to the market by 350 microseconds.

Listings were not originally part of its plans. All exchanges can trade any stock,



## Fighting another day

US equities trading market share  
Five-day average to September 25th 2019, %



wherever it is listed; indeed few do listings at all. But "Flash Boys", a bestseller on high-frequency trading published in 2014, cast Mr Katsuyama and IEX as champions of ordinary investors against rigged markets. The publicity piqued companies' interest. Listings can be lucrative: Nasdaq earned \$290m in listings fees last year. And winning listings from the giants would have been a pleasing endorsement.

Yet after 18 months IEX had secured just one: Interactive Brokers, an electronic brokerage that switched from Nasdaq last October (this week it said it would go back). Market participants say IEX may have been held back by its relatively low trading volumes (see chart). Exchanges determine the opening and closing prices of stocks they list; more bids should mean more accurate, less volatile quotes. Price discovery seems to have mattered more to prospective listers than IEX's modest fees and championing of the little guy.

Despite the failed listings experiment, IEX is still making inroads. Though small compared with Nasdaq and NYSE, it trades 6,000-7,000 stocks and exchange-traded funds each day, making it the world's seventh-largest exchange operator by trading value. It has plans for new business lines, such as IEX Cloud, which offers data to software developers, and IEX Astral, a data platform built with fund managers. It is rolling out IEX Signal, machine-learning software that predicts short-term price movements to help companies time stock buy-backs.

And IEX has helped focus attention on its pet issues. Supported by large asset managers, the Securities and Exchange Commission, America's main financial regulator, is waging court battles against NYSE and Nasdaq over data and transaction fees. Other newcomers, such as the Long-Term Stock Exchange and Members Exchange, are also gearing up to trade equities. Meanwhile, IEX's main innovation is being copied. By 2020 a dozen markets, from Toronto to Moscow, plan to use some sort of speed bump. Enough, perhaps, to ring alarm bells in Times Square. ■

## Indian taxes

## Ray of light

MUMBAI

The government stuns markets and delights businesses by slashing corporate tax

INDIAN BUSINESSFOLK have been morose of late. GDP growth is slowing. Corporate earnings and sales have been dismal, with the automotive industry walloped particularly hard. Redundancies are rising, suggesting that a broader downturn is around the corner. Though the government of Narendra Modi has offered a few goodies and pick-me-ups, including abandoning a new levy on foreign investment, India Inc has been sunk in gloom.

On September 20th the malaise lifted, with a surprise announcement by Nirmala Sitharaman, the finance minister, of steep reductions in corporate taxes. There were reports the plan had been cobbled together in a breathless 36 hours—and suspicions that the government hoped to get ahead of further bad economic news. If so, it will have been gratified by the response. Stock trading, which had been lethargic, perked up. The benchmark Sensex index saw its strongest two-day rise in a decade, of 8.3%.

The suddenness was characteristic of Mr Modi's government, which has a penchant for dramatic moves. It says the tax cuts will leave an additional \$20bn, or 0.7% of GDP, in companies' coffers. Tanvee Gupta Jain, an economist at UBS, puts the figure a bit lower, at \$15bn. She adds that the tax cut should raise India's GDP growth rate by 0.2 percentage points, this year and in the future, by helping to attract manufacturers keen to move out of China. So far most have gone to Bangladesh, Indonesia, Thailand or Vietnam instead, since they offer lower taxes and fewer legal pitfalls.

Earnings for the big firms in the Nifty 50 index will be boosted by 8-10%, analysts reckon. The biggest winners will be profitable businesses paying the highest rates, such as supermarkets, brewers and consumer-product companies. Firms that already have temporary tax breaks, such as IT consultancies, will eventually benefit when their perks expire.

India's tax system is so fiddly that it can reduce even grizzled executives to tears. Accountants were besieged by clients seeking guidance. Hitesh Gajaria, a partner at KPMG, a global accounting firm, said the tax reduction was the largest he had seen in his 34-year career—and so too was the number of people wanting to hear the details. Nearly 1,500 dialled into two webinars he held on September 23rd.

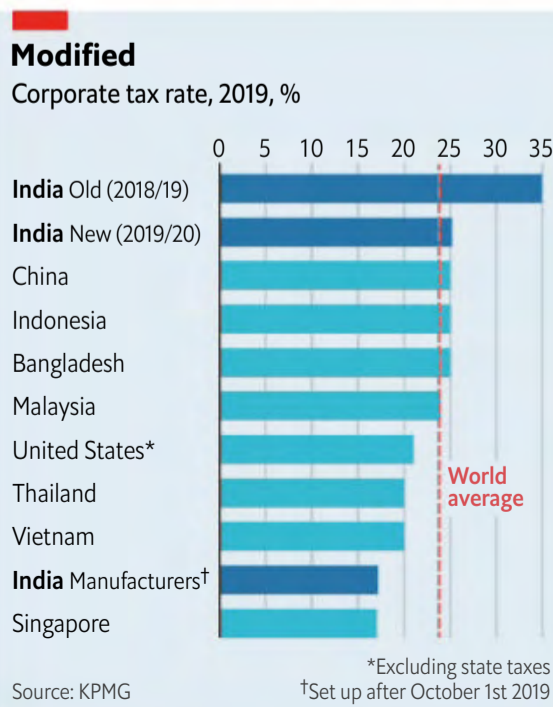
The current base rate for the largest companies is 30%. But surcharges push

this above 35%, on top of which companies are taxed on the dividends they pay. The recipients of those dividends may have to pay yet more tax. Another levy was recently imposed on share buy-backs. The new base rate will be 22% (25.2% with surcharges). The buy-back tax has been lifted for some firms, but the dividend tax remains.

A new discounted rate of 15% (17.2% with surcharges) is supposed to attract manufacturers. That is better than the overall rate in any other large country, and nearly matches low-tax Singapore. The average for all firms in Asia, says Mr Gajaria, is 21%, and for the world 24%. Manufacturers who take the plunge in India will be unable to accept any other incentives, such as accelerated depreciation, credits for research and development, or perks that result from locating in a particular place.

Simplification is a virtue of the plan. But in India nothing is entirely simple. Debate has already started about the precise definition of manufacturing and thus who is eligible for the new incentive for the sector. Existing manufacturers in India are pressing to be included, asking why they should be penalised for committing when others held back.

Tax is only one reason why India has failed to capture a windfall as supply chains shift away from China. Restrictive labour and land-acquisition laws hamper hiring and construction. Changing these would require state governments' approval. Sadly for Indian businesses, that rules out another welcome surprise. ■



## Subsidies in India

## Sugar lump

DELHI

A sickly tale of price distortions

OCEANS OF CLOYING *chai*; coils of sticky *jalebi*—Indians cannot get enough of the sweet stuff. Already the world's largest consumer of sugar (though with relatively low consumption per person, at 19kg per year, against a global average of 23kg), last year India pipped Brazil to become the world's biggest producer. On September 30th its sugar industry's book-keeping year ends. A reckoning is due.

A production bonanza, spurred by the brief scare of a shortfall in 2016-17 and by higher-yielding sugar-cane varieties, has driven India's output to record levels. This year it is expected to hit 33m tonnes of crystalline sugar, compared with domestic demand of about 26m tonnes. The cumulative build-up of sugar means that the mills crushing fresh-cut cane could end up sitting on as much as 14.5m tonnes. That is thought to be the most sugar any country has stockpiled, ever.

India has long granted sugar-cane farmers special perks. It forces mills to pay sky-high prices for sugar cane and makes it hard for them to import it. Uttar Pradesh, the state with the greatest acreage of cane, sets an extra-generous "state-advised price", which guarantees farmers a huge return on their basic costs and labour. Thanks to such artificial pricing, processing sugar anywhere in the country is more ▶▶

► expensive than in other big producing nations. Mills often don't pay their bills. This month some farmers in Uttar Pradesh are burning their crops in protest at the mills' arrears. Abinash Verma of the Indian Sugar Mills Association notes wistfully that Australian and Brazilian mills buy cane at a price linked to what they can get for the juice, meaning they have healthy margins.

India rigs the sugar market for social and political reasons. The industry is a colossal employer of poor people, in particular in two politically weighty states, Uttar Pradesh and Maharashtra. The average farmer of sugar cane grows it on just 1-2 hectares and so must—the thinking goes—be protected from volatile world

prices. Some 35m-50m people are directly employed in sugar-cane cultivation; 7.5% of the rural population depends upon the crop. Complicating things further, sugar barons often become politicians, and vice versa. A survey of 183 sugar mills in Maharashtra between 1993 and 2005 found that most had chairmen who had run for office.

World sugar prices are close to a ten-year low. Despite this India has sold 3.4m tonnes abroad this year (though that fell short of a target of 5m tonnes). Indonesia has promised to take more, though talk of shipping sugar-laden barges down riverways to Bangladesh was inconclusive. On August 28th India said it would pay mills a bonus of 10.5 rupees (15 cents) per kilo ex-

ported, adding up to 63bn rupees (\$877m).

India thus supports farmers to grow sugar, and then subsidises its export. Far better to follow Brazil's lead and help the industry diversify by using sugar-cane juice to distil ethanol, an alternative fuel. Tarun Sawhney of Triveni Engineering & Industries, which owns seven mills, says investors might be keener on the ethanol industry if the government set out a transparent framework for prices, rather than simply announcing them each year. Mr Verma believes that officials make sure that the price of ethanol tracks that of sugar cane. At which point the logic of price controls—such as it is—reaches a limit. Ethanol is a fuel for cars, not for people. ■

The market for lemons

## Juicy analysis

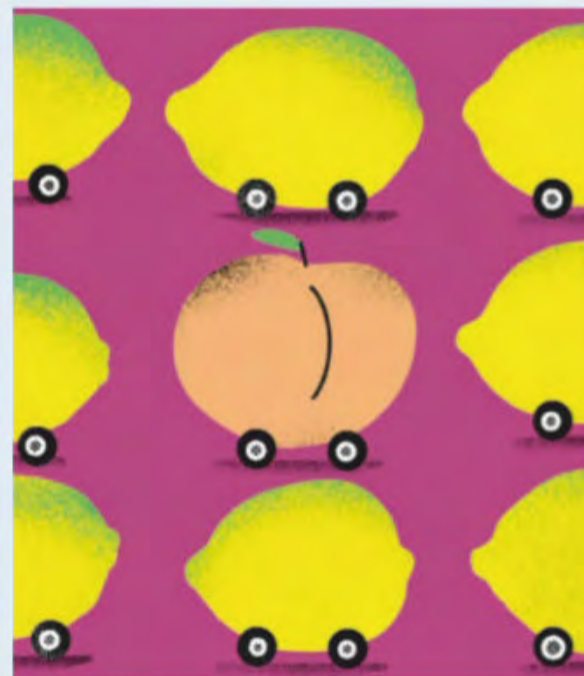
A new paper compares an old economic theory with reality

**I**N 1970 GEORGE AKERLOF penned one of the most famous papers in economics. "The market for lemons" shows how, in markets where sellers know more than buyers, trade can dry up. His example is not fruit but used cars—a "lemon" is one with hidden defects. Buyers want reliable wheels, or "peaches". Not knowing which they are buying, they shave their offers. That puts off peach-sellers, some of whom exit the market, raising the chance of buyers getting a lemon, pushing prices down still further. It becomes impossible to sell a peach for what it should be worth.

Such "adverse selection" can be found in markets from insurance to education. The paper helped to win Mr Akerlof the Nobel prize. But although it contained path-breaking theoretical insight, it cannot be taken literally, because not all used cars for sale are lemons. A new paper examines the extent to which lemons really are a problem.

Richard Blundell of University College London and four co-authors analysed car prices, administrative data on car ownership and income-tax records in Denmark. They estimated the value of cars in their sample by depreciating sale prices over time. They then calculate how big a discount, according to their model, peach-owners had to accept to sell their car to a (lemon-fearing) dealer.

The results provide clear evidence of market failure. The authors find a "lemons penalty" of 18% in the first year of car ownership, and of 8% in the second year. The effect decreases further over time. The lemons penalty for cars that were owned for at least three years hovers around 2-5%. It completely vanishes by



the ninth year of ownership. If a car is sufficiently old, it seems, dealers do not expect hidden defects—perhaps because its problems are obvious. A new car for sale, however, might arouse suspicion. "There is a different car market for different ages," says Hamish Low of Oxford University, one of the authors.

The lemons problem might therefore help explain a well-known phenomenon: that brand-new cars lose a great deal of their value the moment they are bought. However, although the lemons penalty is enough to deter transactions, as Mr Akerlof predicted, the authors found that some peaches still get sold. Sellers may accept a cut-price sale because they badly need cash, or because they have a burning desire to upgrade to something better. Reality is always more complicated than theory. It is enough to send economists bananas.

Trade wars

## System failure

**Schism: China, America and the Fracturing of the Global Trading System.**

By Paul Blustein. CIGI Press; 280 pages; \$35

**A**MERICA'S ECONOMIC relationship with China is rupturing. Tariffs now cover around two-thirds of the countries' bilateral trade in goods, and will include almost all of it from December 15th. A timely new book by a former reporter for the *Washington Post* and *Wall Street Journal* explores the origins of the conflict, which date from well before Donald Trump's presidency.

China hawks contend that America should have blocked China's entry into the World Trade Organisation (WTO) in 2001. Even then, they reckon, it was obvious China would never embrace the Western economic model. Once in, they say, it abused other members' trust, depressing the value of its currency for competitive gain, subsidising its industries and stealing American intellectual property.

But it is worth recalling that the terms set for China were much more severe than those for other emerging markets. It had to agree that other members could impose special, defensive tariffs on its exports. Many within China felt that it had been accorded second-class status. And to say that China's accession achieved nothing is too harsh. China made significant domestic reforms, for example promising that only published laws to which other WTO members had easy access would be enforced. (Previously, some laws had been known only to the authorities.)

Even so, China's membership has fallen far short of the more glowing hopes. After the first few years reforms stalled, and it became clear that the state was not going to loosen its grip much further. Companies ►►

complained that the price of entry to the Chinese market was steeper than had been agreed. Close and tangled relations between China's government and private sector continued to be a problem, as cheap loans and subsidies kept Chinese producers pumping out products even as prices were telling producers elsewhere to stop. The "China shock" caused by a flood of imports meant that many Americans regarded the competition as unfair.

As Mr Blustein explains, some of the problems were exacerbated by American policy choices. George W. Bush was reluctant to use the defences that negotiators had secured against Chinese imports, for fear of hurting American consumers and encouraging other sectors to clamour for protection. Perhaps the threat of tariffs would have convinced the Chinese to let their currency appreciate more quickly. Probably not, reckons Mr Blustein. But America might have tried.

Other challenges were deeper, and harder to resolve by threatening tariffs. Rules are useful only if they can be enforced. China's economic system therefore sits awkwardly alongside international trade law. When it is hard to distinguish between the private and public sectors, it is hard to work out what counts as a subsidy. When laws are enforced selectively by local officials, gathering evidence to sue the Chinese for rule-breaking is nigh-impossible.

More recent history suggests no easy solution to this clash of economic systems. The Trump administration's critics lambasted it for pulling out of the Trans-Pacific Partnership (TPP), a trade deal between America and 11 countries around the Pacific Rim, thereby abandoning the chance to write rules that could eventually reshape China's domestic policies. But Mr Blustein doubts it would have changed China's path. Among the bits of Chinese manufacturing most at risk from the TPP were sectors such as footwear and apparel. But it was already seeking to develop beyond these.

Diplomacy had seemed to bring some success, as when Barack Obama struck a deal in which the Chinese agreed to stop hacking American companies' computer systems and stealing their intellectual property. (Mr Blustein reminds readers of the double standards of America's security services, who fretted that Huawei, a Chinese telecommunications giant, might install surveillance equipment in hardware used around the world—even as they were trying to do the same.) But it could do only so much. China is a large sovereign nation with domestic constituents to please.

Readers will probably finish this excellent book feeling gloomy. Mr Blustein sees two possible ways forward: forging a common China policy with allies; and strengthening the WTO. Sadly, the Trump administration is pursuing neither. ■

## A US-Japan trade deal

# Over the line

WASHINGTON, DC

**The Trump administration's trade agenda is making slow progress**

PRESIDENT DONALD TRUMP teased trade-watchers on September 25th when he reannounced a deal with Japan (just weeks after announcing an agreement in principle). He promised it would mean "really big dollars for our farmers and for our ranchers". A White House press release boasted about the extra access American exporters of beef, pork and cheese would get to the Japanese market. Robert Lighthizer, the United States Trade Representative, told journalists that American tariff reductions would arrive by January 1st. But despite all the fanfare, the text of the deal remained unpublished.

There had been hopes that Mr Trump might sign a mini-deal with India, too, during his meeting with the country's prime minister, Narendra Modi, on September 24th. American companies complain that India's price controls on heart stents and knee implants force them to sell at below cost price. The hope was that, in return for a package that solved that problem, India might be reinstated as a member of America's Generalised System of Preferences, which offers lower tariffs on some products. But negotiators failed to resolve their differences in time.

The mismatch between the demand for photo opportunities and the supply of worked-out trade deals explains both anticlimaxes. Such agreements are complex legal documents, and the language needs to

be clear enough that neither side can squeeze out more concessions on the sly. This is trickier when neither trusts the other. The deal with Japan was as difficult as any other, even though the negotiators had relatively recently sealed the Trans-Pacific Partnership (TPP), an agreement including America and Japan negotiated by the Obama administration, only to be rejected by Mr Trump.

Despite the lack of detail, one thing is clear: the deal will be narrow. Apart from some rules on digital trade, it seems to be focused on tariff barriers. It omits cars and car parts, even though these account for around two-fifths of Japanese goods exports to America. This has drawn criticism. Myron Brilliant of the US Chamber of Commerce, a lobby group, described the agreement as "not enough".

The narrow scope is partly because the Trump administration wants to avoid having to seek full congressional approval. (American trade law allows small tariff concessions to be made without it.) But it raises questions about whether the agreement complies with the rules of the World Trade Organisation, which say deals must include "substantially all the trade" if they are to withstand legal challenge.

The WTO does permit smaller interim agreements—and, *mirabile dictu*, that is how the Trump administration describes this one. The leaders' joint statement said that within four months of the mini-deal coming into force, the two countries hope to finish consultations and "thereafter" start negotiating a deal that would address issues including barriers to trade in services and investment.

Some are sceptical. Wendy Cutler, a former negotiator on the TPP, fears "negotiating fatigue". Even with domestic pressure from American producers to whom the interim deal offered nothing, "it's difficult to see how the second stage would be concluded on an expedited basis," she says.

Further doubts stem from the leverage that has been granted to Japanese negotiators. They were brought to the table after America walked away from the TPP by the threat of tariffs on cars and car parts. Now they have concessions they can roll back if the Trump administration enacts those. Threats have worked once. But they could be less use in securing the big concessions needed if this supposed staging post is not to become the final destination. ■



Camera-ready



# Free exchange | Repo uh oh

*Financial ructions are a reminder that post-crisis reforms will face severe tests*



FOR ANYONE who lived through the global financial crisis, trouble in the market for repurchase agreements, or repos, induces a cold sweat. During the week of September 16th the repo market—the epicentre of the crisis 12 years ago—ran short of liquidity, forcing the Federal Reserve to intervene suddenly by injecting funds. By the following week fears of a reprise of the global crisis were easing, though banks remained eager recipients of Fed liquidity. But the episode was a reminder that financial dangers lurk. At some point one will give post-crisis reforms a real-world stress test. It is unclear whether they are up to the challenge.

The financial crisis combined several storms into a single maelstrom. It was part debt-fuelled asset boom. A long run of rising home prices in America led to complacency about the risks of mortgage lending. Ever more recklessness fuelled the upward march of prices, until the mania could no longer be sustained. Borrowers began to default, saddling lenders with losses and creating a widening gyre of insolvency. Painful enough on its own, America's housing bust became truly explosive thanks to an old-fashioned bank run.

Banks fund themselves on a short-term basis via demand deposits, but also on money markets, such as that for repos. Many bank assets, by contrast, are illiquid and long-term, such as loans to firms and homebuyers. This mismatch leaves banks vulnerable. During the Great Depression, many failed when nervous depositors demanded their cash all at once. Though government-provided deposit insurance now protects against this hazard, it did not extend to money markets. In 2008, then, questions about the health of banks and their collateral triggered a flight from those markets, leaving healthy and unhealthy banks alike unable to roll over short-term loans and at risk of imminent collapse.

These twin woes were amplified by the global financial system's interconnectedness. Cross-border capital flows soared in the years before the crisis, from 5% of global GDP in 1990 to 20% in 2007, spreading financial excess and outstripping regulators' capacity for oversight. Money from around the world poured into America's mortgage market, and the resulting pain was correspondingly global. The Fed's first crisis intervention, in August 2007, was in response to money-market turmoil prompted by fi-

nancial difficulties at funds run by a French bank, BNP Paribas.

Chastened by the near-death experience, governments introduced regular stress-testing and made banks adopt "living wills": plans to wind themselves down in the event of failure without endangering the system as a whole. Central banks added credit-risk indicators to their policy dashboards. Regulators increased banks' capital and liquidity requirements: bigger buffers against losses and liquidity droughts, respectively. In advanced economies bank balance-sheets look stronger than in 2007, and no obvious debt-fuelled bubbles have inflated.

Yet all that is less reassuring than might be hoped. Post-crisis, both governments and markets have proved surprisingly tolerant of risky borrowing. Despite household deleveraging, companies have taken on enough debt to keep private borrowing high; at 150% of GDP in America, for instance, roughly the level of 2004. In America the market for syndicated business loans has boomed, to over \$1trn in 2018, and loan standards have fallen. Many loans are packaged into debt securities, much as dodgy mortgages were before the crisis. Regulators have declined to intervene—remarkably, considering how recent was the crisis.

Just as the threat of bank runs migrated from depositors to money markets, so systemic risk may now be building up in non-bank institutions. Investment funds, pension managers and insurance companies have been eager buyers of securitised bank loans. As recently noted by Brad Setser of the Council on Foreign Relations, an American think-tank, some have begun to take on an ominously bank-like maturity mismatch. Insurers in some countries, including Japan and Korea, have been hoovering up hundreds of billions of dollars of foreign bonds, hedging the exchange-rate risk on a rolling, short-term basis. If, in a crisis, these funds cannot renew their hedges, they could be exposed to significant losses. The vulnerabilities of supposedly staid firms may be an underappreciated source of risk for big banks.

These obscure dangers arise because finance remains extraordinarily globalised. Outstanding cross-border financial claims, though lower than just before the crisis, remain well above the historical norm. Money continues to slosh around the global economy, seeping into cracks beyond the reach or outside the view of national regulators. It is impossible to be sure that unanticipated turmoil in one corner of the financial system cannot spiral into something catastrophic.

## The gyre next time

Troubles in repo markets illustrate the threat posed by this opacity. Market-watchers blamed the cash crunch on firms' need to pay corporate-tax bills at the same time as sucking up more new government debt than usual. But banks were aware of these factors well ahead of time. Other, as yet poorly understood, forces seemed to have provided the nudge that tipped repo markets into disarray.

No obvious disaster looms. But the world did not appreciate the peril it faced in 2007 until too late. There are ways to keep financial risk in check. The Great Depression convinced many people that financial capitalism was inherently dangerous, but in the 40 years that followed, crises were infrequent—a testament to draconian financial regulation and capital controls. Since the deregulation of the 1970s and 1980s, crises have been depressingly common. Just how far back the pendulum has swung will be clear only decades from now, when it becomes possible to look back and count the consequent misfortunes. Rattled once more by repo gyrations, it is tempting to say not far enough. ■

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Quantum computing

## Schrödinger's cheetah

### Proof that a quantum computer can outperform a classical one

**I**N AN ARTICLE published in 2012 John Preskill, a theoretical physicist, posed a question: “Is controlling large-scale quantum systems merely really, really hard, or is it ridiculously hard?” Seven years later the answer is in: it is merely really, really hard.

Last week a paper on the matter was—briefly and presumably accidentally—published online. The underlying research had already been accepted by *Nature*, a top-tier scientific journal, but was still under wraps. The leak revealed that Google has achieved what Dr Preskill dubbed in his article, “quantum supremacy”. Using a quantum computer, researchers at the information-technology giant had carried out in a smidgen over three minutes a calculation that would take Summit, the world’s current-best classical supercomputer, 10,000 years to execute.

A credible demonstration of quantum supremacy, which few disagree that the leaked paper represents, is indeed a milestone. It will divide the history of the field into two eras: a “before”, when quantum

computers were simply hoped to outpace even the best classical kind, and an “after”, when they actually did so. There has been much talk, including in this newspaper, about the latter era. Now it has arrived.

### Leaping forward

Google’s experiment was “circuit sampling”: checking whether numbers their machine spits out, given random inputs, fit a particular pattern. This niche task was chosen to be easy for a quantum computer while still being checkable—just—by a classical one. It does, though, confirm that

quantum computers may in time be able to handle long-standing matters of practical importance. These include designing new drugs and materials, giving a boost to the field of machine learning, and making obsolete the cryptographic codes that lock up some of the world’s secrets.

Quantum computers employ three counterintuitive phenomena. One is “superposition”, the idea behind Schrödinger’s famous dead-and-alive cat. Unlike classical bits, which must be either one or zero, “qubits” may be a mixture of both. Google’s machine has 53 qubits, which between them can represent nearly ten million billion possible superposed states.

The second is “entanglement”, which ties quantum particles together across time and space. In standard computers each bit is rigorously sequestered from the next. Quantum machines like their qubits entangled. Mathematical operations on superposed and entangled qubits can act, to a greater or lesser degree, on all of them at once.

A quantum calculation starts by addressing qubits individually: making one of them mostly zero, say, and then entangling it with its neighbour by a certain amount. That done, it lets the rules of physics play out, with the qubits’ states and linkages evolving over time. At the end (but not before, which would ruin the calculation), the qubits are examined simultaneously to obtain an answer. ▶

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▶ The trick is to maximise the chance of choosing the right answer instead of one of the zillions of wrong ones. This is where the third counterintuitive idea comes in. In classical physics, probabilities must be positive—a 30% chance of rain, say. Quantum mechanics uses a related concept, called “amplitudes”. These can be negative as well as positive. By ensuring that amplitudes which represent wrong answers cancel each other out, while those that represent the right one reinforce, programmers can home in with high confidence on the correct solution.

That is the explanation which textbooks present, anyway. In the laboratory, things are rather more difficult. Superpositions and entanglements are exceedingly delicate phenomena. Even the jiggling of adjacent molecules can interrupt them and sully a calculation. Most designs for quantum computers require the machines to be stored at temperatures colder than that of deep space, and to be tended by a basement full of PhDs, to keep things on track.

No height of education or depth of cold, though, can altogether preclude errors creeping in. The biggest problem facing quantum engineers is how to spot and correct these, because most of the useful applications of quantum computing will require many, many more qubits than current devices sport—with a concomitant increase in the risk of errors. That has spurred a huge effort, both by well-known firms such as IBM, Intel and Microsoft, and by an eager band of newcomers, such as Rigetti, to build better, less error-prone kit.

There is also, in parallel with this race to build better machines, a race to develop useful quantum algorithms to run on them. The most famous example so far is probably Shor’s algorithm. This is the piece of quantum-turbocharged maths that allows rapid factorisation of large numbers into their component primes, and thus scares cryptographers, a group whose trade depends on this being a hard thing to do. But if quantum computers are really to earn their keep, then other algorithms will be needed. Developing them will be assisted by the fact that a lot of the proposed applications (drug design, materials science and so on) themselves depend on quantum processes. This, indeed, is why those applications have been so intractable until now.

### Little acorns

Despite the promise of quantum computing, many in the field are uncomfortable with the phrase “quantum supremacy”, for it implies a threshold that, once crossed, leaves decades of existing computer science in the dust for something weird and wonderful. And for all the “before” and “after” that Google’s paper represents, building practical, error-corrected machines will be far from easy.

It is therefore a mistake, most people think, to believe that quantum computing will replace the classical sort. The practicalities of low-temperature operation alone are likely to see to this. Governments, big firms and the richer sorts of university will, no doubt, buy their own machines. Others will rent time on devices linked to quantum versions of the cloud. But the total number of quantum computers will be limited.

And that will be fine. But it is worth bearing in mind a similar prediction of limited demand made in the early days of classical computing. In 1943 Thomas Watson, then boss of IBM, is alleged to have said, “I think there is a world market for maybe five computers.” He was out by a factor of perhaps a billion. ■



### Palaeoclimatology

## Data from the freezer

### A quest to obtain the oldest ice core from Antarctica is beginning

**T**HE MID-PLEISTOCENE transition was a significant event in the history of Earth’s climate. It marks the point, between 1.2m and 900,000 years ago, when the ice-age cycle of freezing glacial periods alternating with warm interglacial ones (which began about 2.6m years before the present day) flipped from being 40,000 years long to 100,000 years. Climatologists would like to know why.

The answer is important because, on past performance, the cycle should be about to turn cold again. Studies of post-transition cycles, though, suggest that one important regulator of what is happening is carbon dioxide, a greenhouse gas that people have been pumping into the atmosphere in unnatural quantities for a century or more. Understanding CO<sub>2</sub>’s influ-

ence on climates gone by may help predict the details of its role in the future. Teams from Australia, China and Europe are therefore engaged in a friendly competition to gather samples of air that are as much as 1.5m years old. These they hope to find trapped in the lower layers of what will be the deepest ice cores drilled from the continent of Antarctica.

Mere depth, however, is not necessarily enough to achieve the desired goal. The horizontal flow of the topmost layers of an ice sheet can mix up those lower down, making them difficult to date. And older ice, closer to the bedrock, may be melted by heat rising from Earth’s interior. Researchers from all three teams have therefore spent the past few years seeking the optimum place to drill. They have dragged ice-penetrating radars far and wide across Antarctica’s surface to map the layers beneath, and sunk exploratory boreholes to try to gauge how warm it is likely to be in the deepest sections of the ice.

The Europeans, led by Carlo Barbante, a climate scientist at the Ca’ Foscari University of Venice, seem to be the first to have struck metaphorical gold. In April Dr Barbante and his colleagues announced that they had identified a spot in an area called Dome C (see map) that probably includes ice undisturbed by melting or folding. This site is some 40km north-east of Concordia station, a base run jointly by France and Italy. The process of extracting a core nearly 3km long from this site is scheduled to start in 2021. The actual drilling will take six months, but because those months are restricted to two per year during the Antarctic summer, the whole project will last several years. Dr Barbante expects preliminary data to be available by 2025.

Tas van Ommen of the Australian Antarctic Division, a government agency, is also planning to drill near Concordia. He and his colleagues expect to start in 2022 at a location 5-10km from Dr Barbante’s site. On September 23rd they unveiled the new drilling equipment with which they hope to extract their core.

The third project, organised by the Polar Research Institute of China, is in Dome A, closer to Antarctica’s centre than Dome C. Dome A has low snowfall and thick, stationary ice. These are propitious for the preservation of ancient ice layers, but the dome is located over buried mountains, which are likely to complicate the pattern of geothermal heating from below.

Local difficulties aside, these three projects should together push understanding of the mechanisms of glacial and interglacial periods back through the barrier of the Mid-Pleistocene and closer to the point in time when the ice ages began. With luck, after that is done, the past will illuminate the future and the nature of the climate to come will be clearer. ■

## Robotics

## Pick-a-stick

## Robots' abilities to recognise and manipulate things are improving

A TRACKED ROBOT approaches a pile of brushwood blocking its path. This is RoMan, short for Robot Manipulator, and it is practising for what is, in effect, its graduation ceremony, on October 17th, when it will show off its skills to a group of American army top brass in a so-called capstone demo at Carnegie-Mellon University, in Pittsburgh. After a pause for thought, it reaches out an arm, takes hold of a branch, lifts it up and drags it clear. Though this is a trivial action for a human being, it is a breakthrough for robots, according to Stuart Young of the Army Research Laboratory (ARL), in Adelphi, Maryland, who is in charge of the RoMan project. And it has implications for the future of robotics.

As anyone with a Roomba cleanerbot knows, robots easily become confused by something unexpected, like a piece of furniture in the wrong place. A barricade can be made of many objects, some unfamiliar, and none with convenient handles. Taking it apart is far beyond the capability of any industrial robot.

Progress in automated manipulation of this sort has been slow. Amazon, a large e-commerce firm, ran a "pick and place" challenge for three years, with teams of robots competing to retrieve random known objects from warehouse shelves. The competition ended in 2017, with machines still failing to approach the capabilities of human pickers. Similarly, the Euro-

pean Union's "pick-place" initiative for robotic manipulation has set only modest goals for improving the handling of known objects. This lack of technology from the private sector inspired the ARL to push forward with its own programme, the Robotics Collaborative Technology Alliance, which has involved, besides Carnegie-Mellon, General Dynamics, a military contractor, the Jet Propulsion Laboratory (JPL), a NASA facility in California, and the University of Washington.

Dr Young says that, as far as he knows, RoMan is the first machine capable of manipulating unfamiliar objects in an unknown and unstructured environment. Currently, the obstacles it can deal with include piles of logs and brushwood, metal objects and concrete blocks.

Just as a human being would, it has to learn about the world through observation and experiment before it can manipulate it. So it is trained, for example, on numerous tree branches until it is able to recognise unfamiliar ones for what they are and knows to grasp the trunk, rather than the leaves or the twigs. Having so grasped an object, RoMan assesses its weight and decides whether to try to lift it or drag it. Dr Young describes this process as "intuitive physics". Then, when confronted with a real barricade, the robot can recognise objects within the heap, work out whether they are best lifted, pushed or pulled, and position itself in the optimum place to do so and thus dismantle the obstacle.

Dr Young hopes to take this further, for example by dismantling piles of burning tyres. He also wants RoMan to be capable of "whole body manipulation", to exert more force. That would include things like the robot using its body weight in the way a human being might, in order to push open a stiff door or to move heavy furniture by

bracing against a wall.

One problem with RoMan is that it is still impractically slow. It often takes 10-15 seconds to decide what to do. Dr Young says that this delay will have to come down tenfold to meet military requirements. RoMan will also need to learn to deal with a wider range of objects.

All this done, however, the device's future could be bright. Beyond military applications, its descendants might work in warehouses, pick fruit, clear litter or tidy people's homes. They might even, if JPL has its way, collect rocks from the surface of Mars. Picking up a branch is one small act for a robot, but it could put a whole new world within the grasp of robotkind. ■

## Medicine, genetics and the law

## A not-so-merry dance

## In genetic disease, who has the right to know—or not know—what?

IN THIS information-saturated age, what happens when the right to know comes up against the right not to know? The ease of genetic testing has brought this question to the fore. Genes, some of which contain disease-causing mutations, are shared within families, meaning the results of a test for a genetic condition inevitably affect more people than the one who consented to be tested. Two contrasting legal cases pitting these rights against each other—one in Britain, the other in Germany—stand to extend the idea of who, exactly, is a patient and to alter the way in which medicine is practised.

Both cases involve Huntington's disease (HD), a heritable neurodegenerative disorder. A single mutation gives rise to HD, meaning that every child of an affected parent has a 50% chance of inheriting it. Symptoms, which include loss of co-ordination, mood changes and cognitive decline, tend to develop between the ages of 30 and 50, and the disease is ultimately fatal. Diagnosis is based on a simple blood test, and though there are treatments for the symptoms, there is as yet no cure.

In the British case, scheduled for trial at the High Court in London in November, a woman known as ABC—to protect the identity of her daughter, who is a minor—is suing a London hospital, St George's Healthcare NHS Trust, for not sharing her own father's diagnosis of HD with her. ABC was pregnant at the time of his diagnosis, in 2009, and she argues that had she been aware of it, she would have terminated the pregnancy. As it was, she found out only after giving birth to her daughter. She later ▶▶



What the hell is that?!

▶ tested positive for the Huntington's-causing mutation, meaning that her child has a 50% chance of having it too.

Initially the case was struck out, on the grounds that letting it go to trial would risk undermining doctor-patient confidentiality. But in 2017 that decision was overturned. The appeal court concluded that situations could arise where a doctor had a duty of disclosure to a patient's relatives, and that preventing the trial on the grounds that it posed a threat to the doctor-patient relationship was therefore not necessarily in the public interest.

In Britain doctors have a duty under common law to protect a patient's confidentiality, and are released from that duty only with the patient's consent. However, professional organisations such as the General Medical Council recognise that breaching patient confidentiality may sometimes be necessary, in circumstances where not doing so would probably result in death or serious harm. Identifying such situations is left to doctors' judgment.

The German case is in some ways the mirror image of the British one. Unlike in Britain, in Germany the right not to know genetic information is protected in law. Nevertheless, in 2011 a doctor informed a woman living in Koblenz that her divorced husband—the doctor's patient—had tested positive for HD. This meant that their two children were at risk of the disease.

She sued the doctor, who had acted with his patient's consent. Both children being minors at the time, they could not legally be tested for the disease, which, as the woman's lawyers pointed out, is currently incurable. They argued that she was therefore helpless to act on the information, and as a result suffered a reactive depression that prevented her from working. A district court initially rejected the woman's case, but that decision was later overturned. In 2014 the German Federal Court of Justice handed down a final judgment, once again rejecting her case.

Both cases, then, test a legal grey area and their outcomes will be examined with interest by lawyers in other jurisdictions. If the right to know is legally recognised in Britain later this year, that may remove some uncertainties, but it will also create new ones. To what lengths should doctors go to track down and inform family members, for example? Will trust break down between patients and doctors if confidentiality is no longer watertight?

It is the law's job to balance these rights for the modern age. Some worry this is an impossible task, but it has to try. When the law falls behind technology, somebody often pays the price, and currently that somebody is doctors. As these two cases demonstrate, they find themselves in an impossible predicament—damned if they do, damned if they don't. ■

## Reproductive ecology

# Spit it out

### Lilies monkey around with their fruit and seeds to ensure their propagation

**A**FRICAN BUSH lilies are demanding plants. To thrive, they need dappled shade—for they are sensitive to full sunlight—and well-drained soil. They are therefore patchily distributed, growing only in microclimates where these conditions pertain. That means their seeds are likely to do best if they germinate near the plant that bore them. Too near, though, and they will compete with that parent for resources. Somehow, a way needs to be arranged for seeds to be carried the optimum distance from their parental plants. And Ian Kiepiel and Steven Johnson at the University of KwaZulu-Natal, in South Africa, think they know how it happens.

Plants are masters at manipulating animals into assisting their reproduction. One way this happens is that the seeds of many species are just the right size and shape to endure passage through the alimentary canals of the animals that swallow them. When they eventually end up as part of a dung pile, they are thus far from home. The bush lily's predicament, however, suggested to Mr Kiepiel and Dr Johnson that it was not in the plant's best interest for animals to swallow its seeds in the first place.

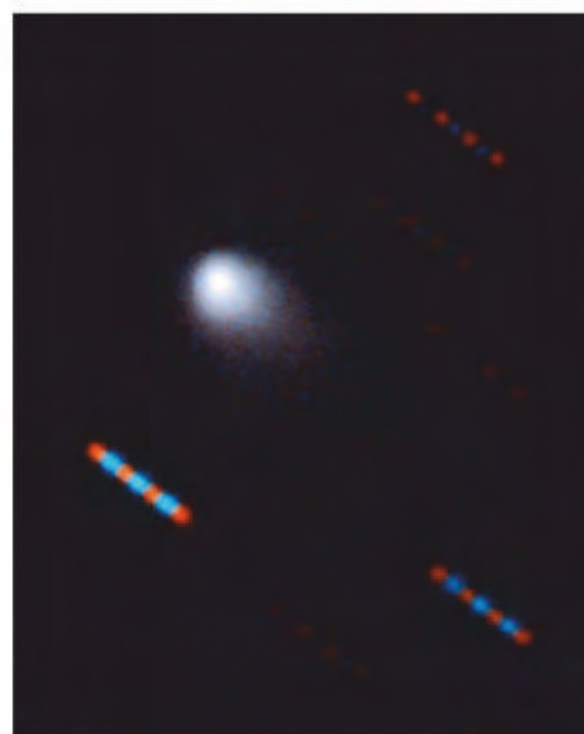
Closer examination of those seeds supported that notion. They lacked the protective layers seen in seeds of the sort that are swallowed. They were also laced with lycorine, a toxin that, depending on the dose, causes vomiting, paralysis or death. This led Mr Kiepiel to wonder whether the fruit themselves were edible. To this end he ex-

perimented on himself and found that they were. Though not particularly pleasant to his taste, lily-fruit flesh had a vague sweetness to it which he suspected might be attractive to other mammals. He did find also, however, that the seeds tasted ghastly. A mere nibble of one was enough to release an awful astringent flavour that lingered on his palate for hours, regardless of any attempt to wash out his mouth.

In light of this experience, he and Dr Johnson set up movement-sensitive cameras at three bush-lily colonies. As they report in *Biotropica*, over the course of a hundred days these cameras took photographs and videos of samango monkeys coming to the plants and devouring their fruit.

Often, when feeding, such monkeys fill their cheek pouches with fruit, which they then consume later, within the safety of a tree. In this case, though, the cameras recorded the monkeys gorging themselves on the fruit while next to the lilies, and only rarely storing fruit in their pouches. Why is not clear. But significantly, the cameras showed that the monkeys were, straight away, spitting out the seeds of every fruit they fed on.

This habit of spitting out seeds suggested that the monkeys might be distributing them just far enough from their source to keep competition between parents and offspring at a minimum. To check this, the researchers visited two of the sites, collected as many spat-out seeds as they could find, and measured those seeds' distances from their probable sources—nearby plants that had been fed on. Those distances averaged 63cm at one of the sites and 66cm at the other. This is exactly far enough to avoid competition while remaining within the microclimate. In the case of African bush lilies, then, it seems that evolution has optimised their reproduction by embedding noxious seeds inside tasty fruit, and letting the monkeys do the rest. ■



### A traveller from an antique land

Two years ago the solar system was visited by 'Oumuamua, an asteroid from interstellar space. It was the first such body observed, but now a second alien object (pictured alongside) is in astronomers' sights. 2I/Borisov is a comet, rather than an asteroid. The distinction is that, warmed by sunlight, 2I/Borisov has developed a temporary atmosphere called a coma. This difference also affects the way it is named. Unlike asteroids, comets are called after their discoverers. The new visitor was first reported by Gennady Borisov, a Russian amateur observer, on August 30th, and was officially named on September 24th. Its closest approach to the sun will be on December 7th, after which it will disappear back into the cosmic tracts whence it came.



European solidarity

## Advance, Britannia!

BRUSSELS

Not everyone in the rest of the European Union thinks Brexit is a disaster

“THE INVENTORS of modern democracy”, lamented Bernard-Henri Lévy last summer, have confused “the people with the mob, the hatchet of the referendum with the wisdom of the *agora*, a national rebirth with a plunge into the void.” The French philosopher was in London on a mission: to persuade those democratic inventors, the British, to cancel Brexit. In his one-man play, “Last Exit before Brexit”, Mr Lévy showered his hosts with flattery, pressing Byron, Nelson and Orwell into the service of his argument that Brexit was fundamentally at odds with English liberalism, which in turn had been fundamental to the European project. “The software of Europe is English,” he urged.

Eccentric as it seemed to some, the performance reflected the continental establishment’s bafflement and dismay at Britain’s divorce from the European Union. Brexit, in this reading, contradicts an old perception of Britain as a pragmatic, un-

### Die Flucht der Briten aus der europäischen Utopie.

By Jochen Buchsteiner. *Rohwolt*; 144 pages; €15

**Le Brexit va réussir.** By Marc Roche. *Albin Michel*; 240 pages; €18.50

dramatic sort of place. For Marc Roche, a longstanding London correspondent for *Le Monde*, France’s newspaper of record, that establishment view is deeply mistaken. He cites Mr Lévy’s speech in the final chapter of “Le Brexit va réussir” (“Brexit Will Succeed”). “Fundamentally, I’m in total disagreement,” he announces. “There is no need to dream. Brexit will happen.”

“Die Flucht der Briten aus der europäischen Utopie” (“The Britons’ Flight from the European Utopia”) by Jochen Buchsteiner takes a similar line. Mr Buchsteiner is another veteran London correspondent, for the *Frankfurter Allgemeine Zeitung*, Germany’s leading conservative broadsheet.

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Like Mr Roche, he believes that the continental consensus epitomised by Mr Lévy is wrong; that Brexit is true to Britain’s historical and philosophical traditions; and that it could yet prove a success. In their drastic departures from received wisdom on the mainland, both books merit attention by Anglophone readers, too.

Both are rooted—and sharpest—in their accounts of Britain’s exceptionalism. Mr Roche is preoccupied by the monarchy, beginning each of his chapters with an anecdote about the royal family. The queen’s cameo in the opening ceremony of the Olympic Games in London in 2012 is cited as an example of Britain’s global cultural reach; Prince Charles’s undeserved education at Cambridge University is crowbarred into a chapter extolling the knowledge-based Anglo-Saxon economy. The monarchical conceit wears thin—but the wider observations are acute. More elegantly, Mr Buchsteiner steers readers through Henry VIII’s break from Rome, the English civil war, the psychological legacy of the British empire and the enduring role of the second world war in Britons’ self-image. But the two authors agree about what makes Britain unusual: a strange mix of pragmatism and pride, openness and complacency.

Both argue that this exceptionalism makes Brexit a natural development. Britain’s empirical tradition and messy state, ▶▶



▶ they argue, sit awkwardly in a club founded on Napoleonic legal precepts and Kantian utopianism. In this analysis, leaving the EU, particularly at a time when storm clouds loom, could be a sort of homecoming to Britain's peculiarity—and a chance to realise its inherent advantages.

"The Britons have created a strange sociotope for themselves," Mr Buchsteiner writes, "with a spaceship-like capital city whose international character overshadows all other European metropolises." Here, "Openness, revolution and tradition are uniquely entangled...In all their urbanity and exceptionalism [Britons] are a strange people." He suggests that as America turns away from Europe and Asia rises, Brexit might turn out well, though he acknowledges that only time will tell. Mr Roche is less cautious. Brexit, he says, will mean Britain's rebirth—albeit as a low-tax, low-regulation Trojan horse for American, Chinese and other intercontinental interests at the doors of Europe. "Far from sinking, England [sic] will be renewed. And Elizabeth II will doubtless celebrate her 100th birthday in her revitalised country, confident of itself and prosperous."

### Best of all possible Brexits

All of which is a refreshing change to simplistic continental shock. Britain's vote to leave the EU was indeed partly a reflection of its "otherness". A few Brexiteers, particularly among Britain's elites, are indeed urbane and worldly. Their aim is not to close the country off, but rather to make it more open to the world beyond Europe. Some believe that Britain's relations with its immediate neighbours will be more harmonious after it extracts itself from a project to which it is ill suited.

But they are a minority. For more of its adherents, Brexit is a nativist project that is supported by isolationist arguments. Vote Leave, the more "moderate" of the two pro-Brexit campaigns in 2016, fear-mongered about millions of spectral Turkish immigrants. Nigel Farage, the leader of the other, more hardline campaign, was the dominant personality of the referendum. And far from reconciling the country to itself, the vote has left it bitterly divided. To regard Brexit as a sunny liberation, as Mr Roche and Mr Buchsteiner do, and thus that the best of all possible futures awaits, is a fallacy of its own.

Nor was EU membership remotely as alien to Britain's traditions as the authors argue. The club has grown organically, and usually in response to crises, not according to a grandly un-British utopian vision. In any case, Britain has shaped the EU in myriad ways, most notably helping to develop the single market that is at the core of the union. Membership does not prevent it cultivating partners further afield; rather it amplifies Britain's voice in its dealings

with them. Above all, exceptionalism is not a get-out from the basic calculus of economics and diplomacy: Britain cannot expect to cut itself off from its biggest market and nearest allies without paying a cost in prosperity and influence.

Events of recent weeks only emphasise these realities. Mr Roche claims that "Brexit has killed populism"; he evidently did not anticipate Boris Johnson's illegal prorogation of Parliament. Meanwhile, the residency of many EU nationals who have lived in Britain for years is in jeopardy; car-makers and banks are eyeing the exits. These two books are insightful and worthwhile commentaries on a country both authors love—but it is surely a gloomy reading of Britain's traditions to see its current predicament as a national self-fulfillment. As Mr Lévy quixotically insisted, Britain is better than Brexit. ■



### Mighty memes

## Pictures to die for

HONG KONG

**The art inspired by pro-democracy protests is getting darker**

AT THE END of April, when Hong Kong's pro-democracy demonstrations were small, Kacey Wong, an artist and activist, wheeled his latest work out into the street. The installation was a mock prison, reminiscent of a British telephone box. It was made of bright red bars, and topped with a handsome blue-and-gold shield emblazoned with the letters HK-CN—an inversion of a commonly used code that designates Hong Kong as CN-HK. As part of the performance, Mr Wong and a friend dressed as mainland policemen, sporting aviator glasses, white gloves and trun-

cheons, which they wielded to "arrest" some of the crowd. The protesters found it all hilarious, gathering in groups to take selfies as they were incarcerated.

Since the demonstrations took off on June 9th artists, cartoonists and graphic designers have produced a torrent of new work, most of it circulating online. Just as with Mr Wong's installation, at first the mood of this outpouring was lighthearted. Badiuca, a political cartoonist who has a tattoo of a tiny man in front of a huge tank on his upper arm, created a flag of coloured squares. They represent the Post-it notes stuck on the many "Lennon walls" around the city that are taken down by municipal cleaners at night, only to be replaced by activists before sunrise.

Artists reworked old tourism posters that extolled the virtues of Hong Kong as a resort, and Eugene Delacroix's "Liberty Leading the People", replacing the Tricolor with the pro-democracy black bauhinia flag (pictured). A videographer working for Ai Weiwei, an exiled mainland artist, captured a young couple kissing—with their gas masks rather than their lips. Just as the alternative, crowd-sourced anthem, "Glory to Hong Kong", evokes a 19th-century romantic nationalism, so did much of the imagery created by the pro-democracy movement's idealistic young artists. It was mostly produced at speed and posted on Telegram, the activists' favourite app.

Recently, however, the imagery, like the atmosphere, has darkened. Take, for instance, a pop-up show at the Kong Art Space in Central District. Reminiscent of art produced at the time of the Umbrella Movement in 2014, which was made of debris collected at the protests, the Kong show has elaborate installations made of face masks and empty tear-gas canisters. Mr Wong, meanwhile, has put away his jaunty jail. His latest piece is a yellow cartoon that frames two black masks, one representing civil disobedience, the other what the artist calls "uncivil disobedience". That is a reference to the rising determination that he senses among Hong Kongers to step up their resistance to the mainland.

The twin masks imply that the protests will not have a happy ending. So does "Skew", a new work by Xiao Lu, China's best-known female performance artist. In her new piece, Ms Xiao is trapped in a perspex prism, up to her ankles in blood-red liquid. Dressed all in black, she writhes and cries out in anguish, unable to escape. In 1989 the Chinese authorities closed a show in Beijing by Ms Xiao after she fired an air pistol at her own work. The incident became known as "the first shot of Tiananmen". At the opening night of Ms Xiao's show in Hong Kong on September 12th, one visitor voiced what many may have been thinking: "Let's hope she doesn't turn out to be Hong Kong's Cassandra." ■

## The uses of philosophy

## Debts to pleasure

**How to be an Epicurean.** By Catherine Wilson. *Basic Books*; 304 pages; \$17.99. Published in Britain as *"The Pleasure Principle"*; HarperCollins; £14.99

IN CATHERINE WILSON'S manual on "the ancient art of living well", her guide is the Greek philosopher Epicurus, who advocated a calm life of modest pleasure. By explaining how the world was, he thought philosophy could show people how to live. Ms Wilson, an Epicurus specialist, agrees. Her intelligent and readable book lies, she says, somewhere between technical philosophy and "advice columns".

To latter-day secularists, Epicurus's formula for a happy life has obvious appeal. Step one was to see the world for what it was. Everything was made of matter, including mind and spirit. The only life was this one. The gods took no interest in humans and were neither vindictive nor demanding. Life's aim was happiness, understood as tranquil pleasure and freedom from pain. The pain that most concerned Epicurus was "mental terror": anxieties rooted in false beliefs about "the nature of things" (the title of the grand philosophical poem by his Roman follower, Lucretius). Step two was applying such knowledge to human existence. That meant not expecting too much, finding simple satisfactions and not agonising about mortality.

Epicurus opened his school, the Garden, outside Athens early in the 3rd century BCE. Followers, it was said, included women and slaves. None of his 300 or more works survive; his thoughts came down through Lucretius and, later, biographers.

Christian thinkers considered him an atheist and amoralist. In Jewish tradition, "apikoiros" meant a heretic. Dante put Epicureans in hell for denying the soul's immortality. In popular lore, Epicurus was patron to gluttons, publicans and brothel-keepers. The "sensualist" slur stuck. Later "epicure" came to mean an aesthete or foodie. Epicurus's scientific speculations—on atomism and natural selection—sound uncannily modern but rested on brilliant inference, not experiment. Read today, the detail sounds barmy.

The life-advice, by contrast, sounds like common sense for people thrown onto their own ethical resources without traditional guidance, as is widespread now. Epicureanism spread as the Greek city-state fell into decline, empires emerged and social authority grew distant and impersonal. Although Ms Wilson does not stress it,

the parallel with the current disoriented mood is striking.

In her book's first part, she sketches Epicurus's proto-democratic world-view. The senses, which are the source of knowledge, are common to all and reliable. Each knows what pleases or pains them. As people know their own minds, they cannot easily be bossed about by presumed betters.

"Living well and living justly", part two, builds on the Epicurean picture of morality as useful rules for reducing harm. Be canny about your pleasures. Don't stress over worldly success. Be good to friends. Enjoy sex but beware its risks. Don't expect too much of parenthood. Above all, stop worrying about death. As Dryden put it, when translating Lucretius:

What has this bugbear death to frighten man,  
If souls can die as well as bodies can?...  
From sense of grief and pain we shall be free  
We shall not feel because we shall not be.

In her last two parts, Ms Wilson probes the philosophical underpinnings. A handy, schematic table contrasts Epicureans and Stoics. Ms Wilson notes Epicurean con-

tempt for religious superstition, self-serving clergy and faith-based warfare, but sees common ground with believers in the shared conviction that "morality matters".

She notes and answers doubts that have dogged Epicureanism, but urges readers to make up their own mind. Is death truly no harm? After all, it cuts short plans, projects and responsibilities which give lives purpose. For his part, Stoic Cicero complained that Epicurus wanted happiness to be both virtuous and pleasant. Yet being fair, firm or a good friend—to take three common-or-garden virtues—need not be pleasant and may be taxing. Can everything today's liberal-minded Epicureans tend to approve of—human rights, abortion, social justice—really be reconciled with the idea that pleasure is all?

Floating over Epicureanism, for all its appeal, is a sense of loneliness. Family life is inessential. Friends are merely instrumental. Everything comes back to "How is this for me?" Perhaps not philosophy but an over-defensive temperament is at work. Could it be that in arming themselves so well against life's anxieties, Epicureans overlook its riches? ■

## Religion in fiction

## Beyond the pale

**A novelist explores the strictures—and allure—of a closed world**

NOVELS ABOUT life in ultra-religious sects usually focus on frustration. Written mostly by and for outsiders, their heroes tend to pine for escape. Even compassionate portraits, such as Chaim Potok's "The Chosen" and Eve Harris's "The Marrying of Chani Kaufman", suggest that such cloistered societies are repellent as well as beguiling. Perhaps because novelists prize

**On Division.** By Goldie Goldbloom. *Farrar, Straus and Giroux*; 288 pages; \$26

the feelings of individuals, they are instinctively sceptical about the appeal of closed, rules-bound groups.

This makes "On Division", a new novel by Goldie Goldbloom, unique. The story revolves around Surie Eckstein, a 57-year-old matriarch who suddenly doubts some of the restrictive mores of her Hasidic shtetl in Brooklyn; yet it conveys an abiding affection for this anachronistic world. At 54, Ms Goldbloom herself remains very much a part of that world, even if she, too, has departed from some of the norms and expectations of her ultra-Orthodox peers.

"I'm not a rule follower. I'm not a team player. I'm the last person you would expect to be a Hasidic Jew," the author confides from her home in Chicago, to which, after growing up in Australia and a spell in New York, she moved 27 years ago. But in the Hasids she sees a community she loves, with people who are faithful, honest, moral ("for the most part") and committed to an intensely Jewish life. "At the same time, I go, 'Goldie Goldbloom, you like to talk about big ideas that may not be found in



Life as they know it

▶ traditional Jewish literature. Where do you fit into this world?"

The title of "On Division" alludes to both a major avenue in a big Hasidic neighbourhood in Williamsburg, and the more personal divisions that run through Surie—and the author. The catalyst for Surie's existential drama is her discovery that—as a tired mother of ten and grandmother of 32—she is somehow pregnant again, and with twins. Her fierce ambivalence at the prospect of yet more children, and her anxiety about the gossip they will inevitably stoke (her neighbours hissing that she is a sex-crazed grandma, or speculating that she is covering for a granddaughter's illegitimate pregnancy), lead her to hide her condition for as long as possible. Her success at keeping her bump under wraps from even her own "better-than-good husband" of 41 years leads her to wonder just how well he, or anyone, really knows her.

Surie's secret also dredges up pernicious thoughts about another story she never discusses: the untimely death of a beloved son who ran away because he was gay. She wonders what she could have done differently, and how she might have resisted the strictures of her insulated tribe. What, she asks herself, "was so terrible about loving a man instead of a woman? Did the Torah forbid loving?"

Queer herself, Ms Goldbloom is well-placed to observe the ways Hasidic Jews can ostracise their own. She came out in her 40s, after divorcing her husband of 21 years, which led some acquaintances to shun her and her eight children. She does not go into detail, but her novel lists some of the tactics used to punish outliers:

A stone would come through their front window. His beard could be forcibly cut off in the back of a moving van. Playdates would be cancelled. The meat from the butcher would always be too fatty...Marriage suggestions would dry up.

Ms Goldbloom is quick to point out that, in real life, plenty of ultra-Orthodox Jews still eat in her home, despite her massive library of secular books (another no-no). But she also recounts the sage advice a rabbi gave her before she left Australia: "The religion itself, God Himself, is perfect and people aren't." Because she doesn't feel ostracised by God, she says, she doesn't mind what other people think.

Considering these travails, it is surprising that she chose a Hasidic life, rather than being born to one. As a child, her family in Perth didn't keep a kosher home. But what she learned about Judaism inspired her to become more religious. She taught herself Hebrew and Yiddish ("It was fun. I like codes"), then attended a seminary in Melbourne, followed by one in Brooklyn. Later, disappointed by the way Hasids treat queer people (many of whom resort to suicide),

she created a blog for anonymous interviews with closeted ultra-Orthodox Jews. She fielded countless messages, many of them from Muslim, Amish or Mormon correspondents, who would tell her, "This is my story, too."

Ms Goldbloom hopes "On Division" reaches ultra-Orthodox readers, but she doesn't see it as a book that is only about Jews. Like her debut, "The Paperbark Shoe", this novel is really about the struggle to bridge differences. Children, she notes, will always defy expectations. Partners inevitably disappoint. "But there has to be a moment when you see the humanity of the other person," she says. "There has to be a way to connect without fear." ■

### America in song

## Three chords and the truth

### A distinguished documentarian tunes in to country music

THE FIDDLE was imported to America by immigrants from the British Isles. The banjo was played by slaves brought from Africa. The fiddle and the banjo met in the American South. "That's why the first episode is called 'The Rub'," says Ken Burns of "Country Music", his new 16-hour documentary series. "The rub is that friction caused by blacks and whites."

Like his explorations of the civil war, jazz, the Roosevelts and (most recently) the Vietnam war, Mr Burns's series is meticulously researched and sometimes solemn, featuring grave narration and rare footage. But even the snobbiest viewers will gain a new appreciation of country—along with jazz, among the most American of musical genres, a simple-seeming but complex blend of old world and new, rural and industrial, African-American blues and hillbilly reels, Sunday mornings at church and Saturday nights at honky-tonks.

Mr Burns mixes oft-told tales with more obscure episodes. Johnny Cash's performance at San Quentin prison is better known than the fact that Merle Haggard, whose lyrics later immortalised the "Okie from Muskogee", was an inmate at the time. Fans familiar with the lineaments of the short, turbulent life of Hank Williams, the hillbilly Shakespeare, may have missed his insistence that "there ain't nobody in this here world that I'd rather have standing next to me in a beer-joint brawl than my Ma, with a broken bottle in her hand." Despite the occasional black star, such as Charley Pride (pictured with Cash), the influence of African-Americans has been largely forgotten; even some aficionados

may be unaware that DeFord Bailey, the grandson of a former slave, was one of country's biggest radio stars in the 1920s.

As Mr Burns shows, that was the decade in which the genre was commercialised. An insurance firm in Nashville opened a station, WSM, thinking it a cheap way to sell policies to working folk. Its Saturday night barn-dance slot became the "Grand Ole Opry", the longest-running show on American radio. As Marty Stuart, a country prodigy, puts it, ever since Nashville has had a "guitar in this hand. Briefcase in this hand".

According to Harlan Howard, a songwriter, the music itself trades in "three chords and the truth"—a theme much broader and deeper than the cheatin' hearts and pick-up trucks of stereotype. Cash, for example, once dedicated an album to Native Americans, but initially country stations wouldn't play it. In 1975 some banned Loretta Lynn, who had crooned about her hardscrabble life as a coalminer's daughter, because of her song "The Pill". "If they'd have had the pill out when I was having kids," she comments in one of the series's funniest moments, "I'd have ate 'em like popcorn." Kris Kristofferson—a Rhodes scholar who left his job as an instructor at West Point to be a janitor at a studio—dealt directly and beautifully with sex in "Help Me Make It Through The Night". The suggestive lyrics made record labels queasy.

The series opens with a shot of a mural at the Country Music Hall of Fame, which depicts a barn dance, the railway, a church choir, river boats, fiddles, cowboys, a blues musician and slaves in the field. "It is the closest thing visually really to what country music sounds like," reckons Kathy Mattea, a singer. That sound is always evolving—to the ire of traditionalists, who have worried about the influence of rock 'n' roll, foreigners, hip-hop and much else. "It's been a million different things in a million different ways," Vince Gill, another singer, tells Mr Burns. "I don't think I would enjoy country music if it stayed the same." ■



When Charley met Johnny

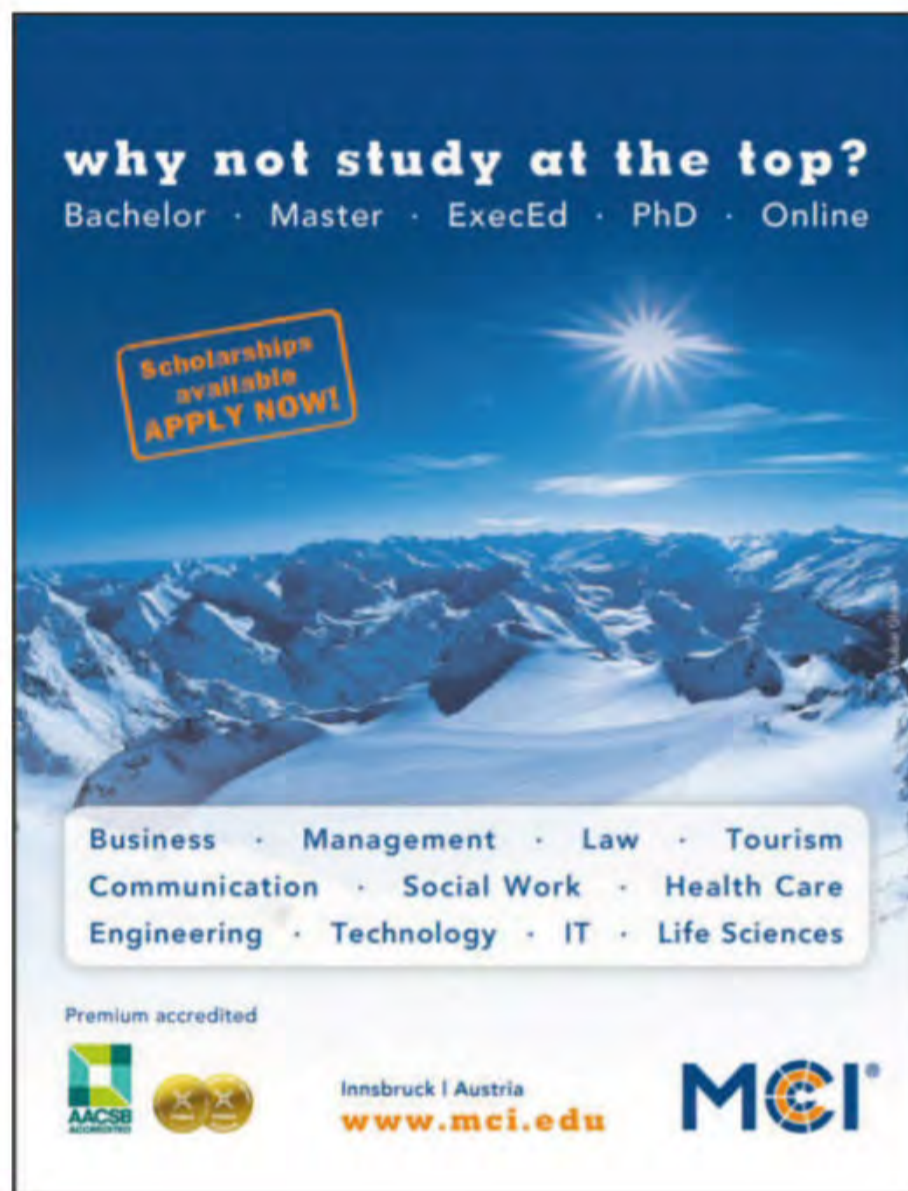


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## Economic data

	Gross domestic product			Consumer prices		Unemployment rate		Current-account balance		Budget balance		Interest rates		Currency units		
	% change on year ago latest	quarter*	2019†	% change on year ago latest	2019†	%		% of GDP, 2019†	% of GDP, 2019†	10-yr gov't bonds latest,%	change on year ago, bp	per \$	% change Sep 25th on year ago			
United States	2.3	Q2	2.0	2.2	1.7	Aug	2.0	3.7	Aug	-2.2	-4.7	1.7	-127	-		
China	6.2	Q2	6.6	6.1	2.8	Aug	2.8	3.6	Q2 <sup>§</sup>	0.7	-4.5	3.0	§§	-54.0	7.12	-3.4
Japan	1.0	Q2	1.3	1.0	0.2	Aug	1.0	2.2	Jul	3.3	-3.0	-0.3	-33.0	108	4.8	
Britain	1.2	Q2	-0.8	1.1	1.7	Aug	1.8	3.8	Jun <sup>††</sup>	-4.0	-1.8	0.6	-98.0	0.81	-6.2	
Canada	1.6	Q2	3.7	1.6	1.9	Aug	2.0	5.7	Aug	-2.5	-0.9	1.4	-105	1.33	-2.3	
Euro area	1.2	Q2	0.8	1.3	1.0	Aug	1.4	7.5	Jul	2.9	-1.1	-0.6	-110	0.91	-6.6	
Austria	1.5	Q2	-1.4	1.4	1.5	Aug	1.6	4.4	Jul	1.7	0.1	-0.3	-107	0.91	-6.6	
Belgium	1.2	Q2	0.9	1.2	1.3	Aug	1.8	5.7	Jul	0.1	-1.0	-0.3	-115	0.91	-6.6	
France	1.4	Q2	1.3	1.2	1.0	Aug	1.2	8.5	Jul	-0.9	-3.3	-0.3	-107	0.91	-6.6	
Germany	0.4	Q2	-0.3	0.5	1.4	Aug	1.3	3.0	Jul	6.5	0.5	-0.6	-110	0.91	-6.6	
Greece	1.9	Q2	3.4	1.8	-0.2	Aug	0.8	17.0	Jun	-3.0	0.3	1.4	-272	0.91	-6.6	
Italy	-0.1	Q2	0.1	0.1	0.4	Aug	0.8	9.9	Jul	1.9	-2.4	0.9	-204	0.91	-6.6	
Netherlands	1.8	Q2	1.6	1.7	2.8	Aug	2.6	4.4	Aug	9.7	0.6	-0.5	-106	0.91	-6.6	
Spain	2.3	Q2	1.9	2.2	0.3	Aug	0.9	13.9	Jul	0.6	-2.3	0.1	-136	0.91	-6.6	
Czech Republic	2.4	Q2	2.6	2.6	2.9	Aug	2.7	2.2	Jul <sup>†</sup>	0.5	0.2	1.3	-90.0	23.5	-7.7	
Denmark	1.9	Q2	3.2	1.8	0.4	Aug	0.9	3.8	Jul	6.8	1.0	-0.6	-104	6.81	-7.0	
Norway	-0.7	Q2	1.0	1.5	1.6	Aug	2.3	3.8	Jul <sup>††</sup>	6.2	6.6	1.2	-74.0	9.05	-10.4	
Poland	4.2	Q2	3.2	4.0	2.9	Aug	2.0	5.2	Aug <sup>§</sup>	-0.6	-2.0	2.0	-122	4.00	-9.0	
Russia	0.9	Q2	na	1.3	4.3	Aug	4.5	4.3	Aug <sup>§</sup>	7.2	2.1	7.1	-162	64.3	2.2	
Sweden	1.0	Q2	0.5	1.6	1.4	Aug	1.8	7.1	Aug <sup>§</sup>	4.4	0.6	-0.3	-93.0	9.74	-9.8	
Switzerland	0.2	Q2	1.1	0.8	0.3	Aug	0.5	2.3	Aug	9.3	0.5	-0.8	-93.0	0.99	-3.0	
Turkey	-1.5	Q2	na	-0.2	15.0	Aug	15.9	13.0	Jun <sup>§</sup>	-0.1	-2.8	13.8	-488	5.68	9.0	
Australia	1.4	Q2	1.9	1.8	1.6	Q2	1.5	5.3	Aug	-0.1	0.1	0.9	-176	1.48	-6.8	
Hong Kong	0.5	Q2	-1.7	0.5	3.5	Aug	3.0	2.9	Aug <sup>††</sup>	4.2	0.1	1.2	-129	7.84	-0.4	
India	5.0	Q2	2.9	5.2	3.2	Aug	3.6	8.2	Aug	-1.5	-3.5	6.8	-138	71.0	2.3	
Indonesia	5.0	Q2	na	5.1	3.5	Aug	3.1	5.0	Q1 <sup>§</sup>	-2.8	-2.0	7.3	-88.0	14,150	5.4	
Malaysia	4.9	Q2	na	4.8	1.5	Aug	0.8	3.3	Jul <sup>§</sup>	4.5	-3.5	3.5	-65.0	4.19	-1.2	
Pakistan	3.3	2019**	na	3.3	10.5	Aug	9.1	5.8	2018	-3.7	-8.9	12.7	†††	269	156	-20.4
Philippines	5.5	Q2	5.7	5.7	1.7	Aug	2.7	5.4	Q3 <sup>§</sup>	-1.3	-2.5	4.8	-234	52.2	4.0	
Singapore	0.1	Q2	-3.3	0.7	0.5	Aug	0.5	2.2	Q2	15.6	-0.3	1.7	-89.0	1.38	-0.7	
South Korea	2.1	Q2	4.2	1.9	nil	Aug	0.7	3.0	Aug <sup>§</sup>	4.0	0.6	1.4	-99.0	1,199	-7.0	
Taiwan	2.4	Q2	2.7	2.4	0.4	Aug	0.5	3.7	Aug	12.0	-1.0	0.7	-21.0	31.0	-1.2	
Thailand	2.3	Q2	2.4	2.5	0.5	Aug	1.2	1.1	Jul <sup>§</sup>	7.2	-2.8	1.4	-125	30.6	6.2	
Argentina	0.6	Q2	-1.3	-2.9	54.5	Aug <sup>†</sup>	53.4	10.6	Q2 <sup>§</sup>	-1.5	-3.7	11.3	562	57.0	-31.1	
Brazil	1.0	Q2	1.8	0.8	3.4	Aug	3.8	11.8	Jul <sup>§</sup>	-1.1	-5.8	5.0	-458	4.18	-1.2	
Chile	1.9	Q2	3.4	2.6	2.3	Aug	2.3	7.2	Jul <sup>§††</sup>	-2.6	-1.3	2.7	-179	726	-7.9	
Colombia	3.4	Q2	5.6	3.1	3.8	Aug	3.5	10.7	Jul <sup>§</sup>	-4.4	-2.5	5.8	-116	3,447	-13.0	
Mexico	-0.8	Q2	0.1	0.3	3.2	Aug	3.6	3.6	Aug	-1.7	-2.5	6.9	-115	19.6	-2.8	
Peru	1.2	Q2	4.1	3.0	2.0	Aug	2.2	6.5	Aug <sup>§</sup>	-1.9	-2.0	5.6	64.0	3.35	-1.2	
Egypt	5.7	Q2	na	5.6	7.5	Aug	9.1	7.5	Q2 <sup>§</sup>	-0.4	-6.8	na	nil	16.3	9.8	
Israel	2.2	Q2	1.0	3.5	0.6	Aug	0.9	3.8	Aug	2.3	-4.0	0.9	-111	3.50	2.3	
Saudi Arabia	2.4	2018	na	1.9	-1.1	Aug	-1.1	5.6	Q2	2.9	-5.9	na	nil	3.75	nil	
South Africa	0.9	Q2	3.1	0.8	4.3	Aug	4.6	29.0	Q2 <sup>§</sup>	-4.1	-4.8	8.3	-80.0	15.0	-4.1	

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:	
		Sep 25th	Dec 31st 2018
United States S&P 500	2,984.9	-0.7	19.1
United States NAScomp	8,077.4	-1.2	21.7
China Shanghai Comp	2,955.4	-1.0	18.5
China Shenzhen Comp	1,638.8	-1.0	29.3
Japan Nikkei 225	22,020.2	0.3	10.0
Japan Topix	1,620.1	0.8	8.4
Britain FTSE 100	7,290.0	-0.3	8.4
Canada S&P TSX	16,784.3	-0.1	17.2
Euro area EURO STOXX 50	3,513.0	-0.4	17.0
France CAC 40	5,583.8	-0.7	18.0
Germany DAX*	12,234.2	-1.3	15.9
Italy FTSE/MIB	21,788.2	-0.7	18.9
Netherlands AEX	573.4	-0.6	17.5
Spain IBEX 35	9,085.3	0.6	6.4
Poland WIG	57,085.1	-2.1	-1.0
Russia RTS, \$ terms	1,354.0	-2.0	27.0
Switzerland SMI	9,914.8	-1.0	17.6
Turkey BIST	102,618.4	0.7	12.4
Australia All Ord.	6,814.7	0.3	19.4
Hong Kong Hang Seng	25,945.4	-3.0	0.4
India BSE	38,593.5	5.6	7.0
Indonesia IDX	6,146.4	-2.1	-0.8
Malaysia KLSE	1,589.6	-0.6	-6.0

	index	% change on:	
	Sep 25th	one week	Dec 31st 2018
Pakistan KSE	31,565.2	nil	-14.8
Singapore STI	3,125.8	-1.3	1.9
South Korea KOSPI	2,073.4	0.1	1.6
Taiwan TWI	10,873.7	-0.5	11.8
Thailand SET	1,628.4	-1.6	4.1
Argentina MERV	28,212.4	-6.2	-6.9
Brazil BVSP	104,480.9	nil	18.9
Mexico IPC	43,014.1	-0.1	3.3
Egypt EGX 30	13,594.6	-7.8	4.3
Israel TA-125	1,520.5	-0.2	14.0
Saudi Arabia Tadawul	8,030.3	2.7	2.6
South Africa JSE AS	54,876.8	-2.4	4.1
World, dev'd MSCI	2,184.6	-0.7	16.0
Emerging markets MSCI	1,005.6	-1.5	4.1

## US corporate bonds, spread over Treasuries

	Dec 31st	
Basis points	latest	2018
Investment grade	163	190
High-yield	497	571

Sources: Datastream from Refinitiv; Standard & Poor's Global Fixed Income Research. \*Total return index.

## Commodities

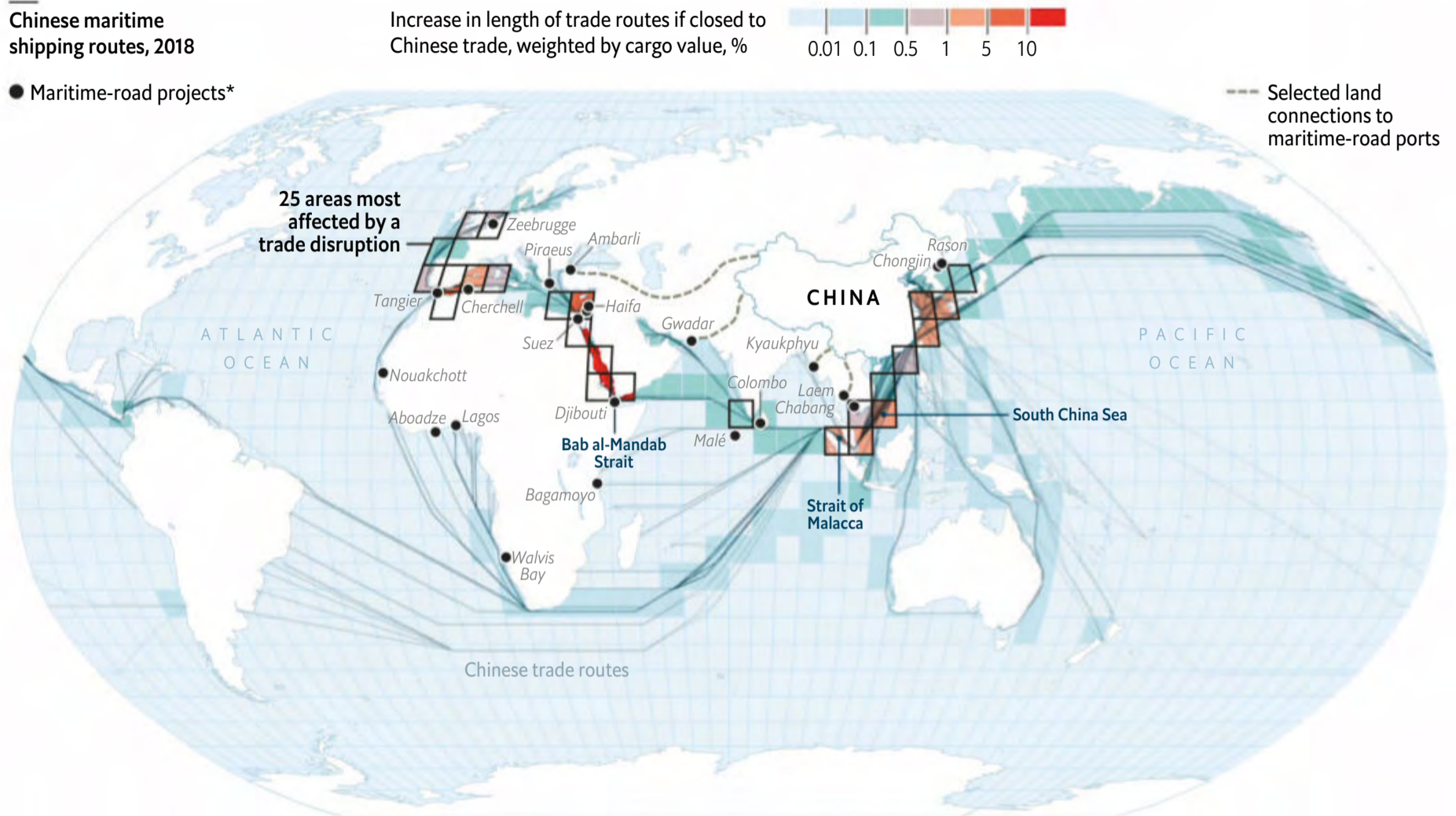
## The Economist commodity-price index

2005=100	Sep 17th		Sep 24th*		% change on	
			month	year		
<b>Dollar Index</b>						
All Items	134.3	134.0	1.7	-3.2		
Food	143.7	143.8	1.6	1.8		
<b>Industrials</b>						
All	124.5	123.9	1.8	-8.5		
Non-food agriculturals	113.5	111.6	1.4	-11.9		
Metals	129.3	129.2	2.0	-7.2		
<b>Sterling Index</b>						
All items	196.4	195.4	0.1	2.2		
<b>Euro Index</b>						
All items	151.2	151.5	2.7	3.8		
<b>Gold</b>						
\$ per oz	1,504.2	1,525.2	-0.9	26.8		
<b>West Texas Intermediate</b>						
\$ per barrel	59.3	57.3	4.3	-20.7		

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](https://www.economist.com/indicators)

## China's maritime-road projects cluster where disruption to its trade would be most costly



Sources: Mercator Institute for China Studies; World Bank; Journal of Contemporary China; European Space Agency; US National Centres for Environmental Information; NOAA Geosciences Lab/SOEST, University of Hawaii

\*Where work is under way with a Chinese organisation that has a majority stake or is being tasked with development or operation

## The best offence is a good defence

### China's foreign port-building helps to protect existing trade routes

**A**N OLD SAYING warns about Greeks bearing gifts, but it might fit the Chinese better. In the 1400s Zheng He, a Muslim slave who became the Ming empire's admiral, led seven voyages south and west. He offered treasure to every leader he met—but only if they acknowledged the emperor, joining a world order centred on Beijing.

Chinese leaders today are following in Zheng's wake. The "road" half of its Belt and Road Initiative (BRI)—a global infrastructure-building scheme—is a maritime one of seaports and shipping channels. Xi Jinping, China's president, has said it will create a new model of "win-win co-operation". Some critics suspect nefarious motives, such as yoking poor countries to China by giving them unrepayable loans.

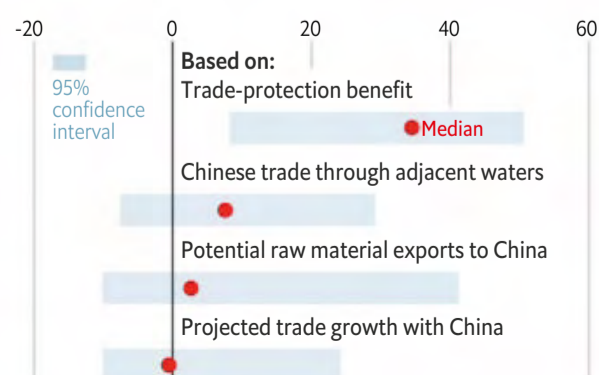
The BRI has evolved site by site and Chinese officials have not made their intentions clear. However, the locations of the 22 maritime-road projects that we have identified as under way show how it is most

likely to aid China. They suggest it will be more useful for protecting existing trade routes than expanding Chinese influence.

To measure the maritime road's impact, we tested three benefits it could offer China. If the road were a resource grab, its projects should cluster in places that sell raw materials that China imports. If its aim were to boost trade, it should track the busiest routes used by Chinese shipping today, or where trade is likely to grow fastest. And if it were intended to secure current trade routes, its ports should sit near choke points—areas whose closure would force goods to travel circuitously—or in places that offer alternative routes.

We tested these explanations by using them to predict if countries host a BRI port.

### Change in probability that country has Chinese maritime-road project, percentage points



The results were conclusive. After holding other factors constant, there was no statistically significant link between having a BRI port and exporting raw materials that China wants, or having high current or projected trade with it. In contrast, the "trade-protection benefit"—either the value of Chinese trade in a country's waters multiplied by the extra distance goods would have to go if those routes were shut, or the amount of trade that would be diverted to a country if shipping were disrupted elsewhere—was a good predictor. Given two otherwise average countries, one with a high trade-protection benefit (like Libya) is 2.7 times likelier to host a BRI port than another with an average benefit (like Liberia).

Owning or running a port does not guarantee perpetual access, but it does give China influence by enabling it to disrupt the host's own shipping if it chooses. Many overland "belt" routes in the BRI would also make Chinese trade more resilient. For example, if the Strait of Malacca were closed, China could switch to BRI ports it wants to build in Myanmar, and finish the trip on planned BRI rail lines.

China's military footprint also shows a focus on guarding trade routes. Its only base abroad is at Djibouti's Bab al-Mandab Strait—the waterway whose closure would hurt China more than anywhere else. ■



## To save a life

**Robert McClelland, doctor of medicine, died on September 10th, aged 89**

HE HAD PROBABLY told the story 8,000 times but, each time he was asked, Robert McClelland, “Dr Mac” to his colleagues and students, would willingly begin again in his quiet, undramatic way. At around 12.30 on November 22nd 1963, as he was showing residents a film on how to repair a hiatus hernia at the Parkland Memorial Hospital in Dallas, a little knock came at the door. And he and a colleague were called away to the emergency room two floors down. They half-grumbled on the way that they were often called out to situations described as “terrible”, to find they really weren’t that bad. This one was.

First, the elevator doors opened on a crowd of men in dark suits and hats, shoulder to shoulder. He was in a suit himself; no time to scrub up. Then he saw Jackie Kennedy, sitting on a folding chair in bloody clothing; and next, along in Trauma Room 1, President Kennedy himself, lying on a cart with the operating light full on him, his head a mass of blood and blood clots, his face cyanotic, swollen blue-black, with the eyes protuberant. He had been shot as his motorcade drove through Dallas. For a moment, Dr McClelland stood dumbfounded. Those wounds were surely mortal. But then he pulled on his surgical gloves, determined like his colleagues to make all possible attempts to revive him. That was his job.

Most vital was to establish an airway, then replace the blood. A tracheotomy had been begun through the wound in the anterior of the president’s neck, so he joined in, using a retractor to hold the incision open. Meanwhile, unmatched blood and fluids were being pumped into the president and an anesthesia machine was assisting his breathing, for they all saw a possible agonal respiration, and his heart was working. Yet Dr McClelland, standing for ten minutes at his post at the president’s head, found himself staring

deep into the occipital part of the skull, where both bone and brain had been blasted away. He told his colleagues that the back of the head was gone. Such a wound could not be repaired, then or decades later for that matter. At 1pm Kennedy was pronounced dead.

Afterwards they were asked to write reports on a single sheet of paper. Then it was back to work. They were shaken, but barely talked about it. He took his bloodied suit to the cleaner’s—had to, as he only had two—but kept his shirt unwashed in a box. He had seen Lincoln’s bloody shirt on display in Washington, and was fascinated both by the man and by the surgeon’s attempts to save him after that pistol shot a century before. On his own shirt the president’s blood had pooled at the cuff above his surgical gloves.

Resuscitation was not his speciality. He was, and increasingly became over the next six decades, an expert in hepato-pancreato-biliary surgery, specialising in resections of the liver, and famous round Dallas-Fort Worth for turning up at hospitals with Lin clamps in his car, ready to control any bleeding from the portal vein. But gunshot trauma was hardly unusual at Parkland. In 1963 he had been only a year in the surgical faculty, but he had also done a summer job and a general-surgery residency there, before becoming a full-time instructor of surgery in the next-door University of Texas Southwestern Medical School. In that time he had seen at least 200 gunshot wounds, for it was a city-county hospital for indigent patients, many of whom got mixed up in shootings.

Two days later he was busy on yet another. The tv news told him that Lee Harvey Oswald, arrested for the killing of Kennedy, had been shot in turn, and he raced to Parkland to save him if he could. This was a pistol shot at close range to the abdomen, survivable if straight front-to-back. But Oswald had flinched aside—as anyone would—and the bullet had gone across the left side to the back, injuring the aorta and vena cava and causing such blood loss that he was white as a piece of paper. Again, Dr McClelland thought him unsalvageable. But he tried, opening Oswald’s chest to massage his heart for fully 40 minutes, taking turns, before the heart grew flabbier and flabbier and then arrested for good.

He was often asked why he had made such efforts to save him. First, because that was his job; second, because Oswald had been accused but not convicted. And he did not believe that Oswald had acted alone. He was no expert in physics or ballistics, and his knowledge of how bodies reacted to bullets was drawn mainly from deer-hunting in East Texas where he had grown up, eager to be a doctor like his grandfather. Still less did he have time for those nuts, conspiracy theorists. But he lived and breathed first-hand surgical experience. His office groaned with medical journals, and in 1974, with \$2,700 from the bank, he started *Selected Readings in General Surgery*, a collection of the most useful new articles to save weary students searching. It became so popular that, at one time, some 60% of America’s general-surgery residents were taking it.

He would also happily scrub up and sit in on procedures if any resident asked him, working quietly on his laptop, assisting if needed. And it was as a surgeon that he formed his opinion about the Kennedy assassination, simply from what he saw that day. The neck wound might have been entry or exit, but the back of the head clearly showed a huge exit wound; so the first bullet probably came from the back, and the second from the front, from different gunmen. He refused to speculate beyond that; he was no more qualified to do that than anyone else. On that day he just did what he was trained to do, the best way he could, as they all did.

Several other aspects went on troubling him. There was no post-mortem in Texas, against state law; the body went at once to Bethesda. He was shown autopsy pictures at the National Archives in which the exit wound was covered up. A colleague in Trauma Room 1 was sworn to silence. As the official account of the lone gunman settled in stone, he felt impelled to live and relive a story that was clearer in his mind’s eye than the faces of his listeners: how he had stood staring into Kennedy’s empty skull, how he had held Oswald’s struggling heart in his hands. ■

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# Shaping the agenda for the 21st century

Manchester, October 5th 2019

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