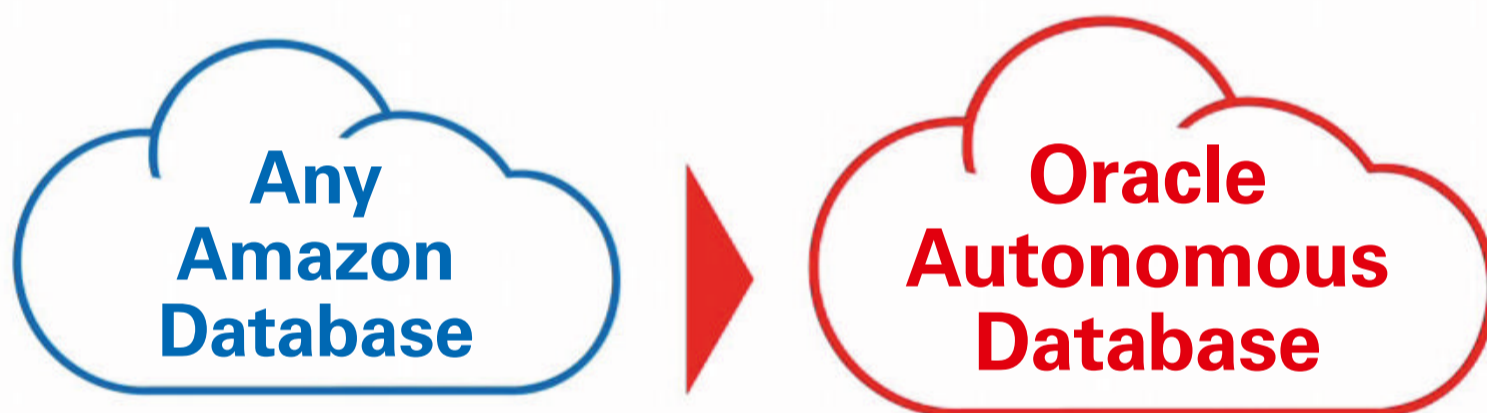


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The
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Slowbalisation

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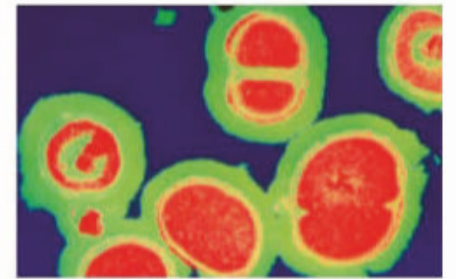
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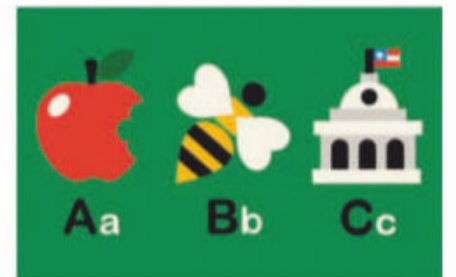
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TURKISH AIRLINES

WIDEN YOUR WORLD



Juan Guaidó (pictured), the head of **Venezuela's** national assembly, proclaimed himself the country's acting president at a large protest against the socialist regime in Caracas, the capital. Venezuela's opposition says that President Nicolás Maduro is a usurper: he won a rigged election last year and has been sworn in to a second term. The United States recognised Mr Guaidó as interim leader, as did Canada and most large Latin American countries. Venezuela broke off diplomatic relations with America and gave its diplomats 72 hours to leave the country.

At least 98 people were killed by an explosion as they collected fuel from a leaking petrol pipeline in the **Mexican** state of Hidalgo. The pipeline has been repeatedly tapped by thieves at the location of the blast. This month Mexico cracked down on fuel theft by shutting pipelines, which has led to shortages.

A car-bomb at a police academy in **Colombia's** capital, Bogotá, killed 21 people. The ELN, a guerrilla group with 2,000 fighters, took responsibility, saying that the government had spurned its peace overtures. It was the first such bomb attack in nine years.

The Franco-German engine Chancellor Angela Merkel and President Emmanuel Macron met at Aachen to sign a new treaty of co-operation between **Germany** and **France**. Critics said the document was vague and papers over deep divi-

sions; boosters stressed the symbolic importance of a renewed commitment to the European Union from its two principal members.

Italy's deputy prime minister, Matteo Salvini, accused France of "stealing wealth" from Africa, the latest twist in a deepening battle of words between the two neighbours.

The EU imposed sanctions on the head and deputy head of **Russia's** military intelligence agency for last year's nerve-agent attack on a Russian dissident in Salisbury, a town in England. It also sanctioned the two agents suspected of carrying out the attack.

Theresa May, **Britain's** prime minister, outlined her "Plan B" to Parliament following the defeat of her withdrawal agreement with the EU. The only concrete change was the waiving of a £65 (\$84) application fee for EU citizens who want to

confirm their residency in Britain. MPs repeatedly shouted "Nothing has changed!" during Mrs May's statement. Remain-supporting MPs made moves to prevent a no-deal Brexit.

A car-bomb exploded in **Northern Ireland** outside a court in Londonderry. Police suspect it was planted by a republican splinter group.

Giving it another go

American officials said Donald Trump would meet Kim Jong Un, the leader of **North Korea**, for a second summit at some point in February. Talks between the two countries about North Korea's nuclear weapons and long-range missiles have been bogged down since the pair's first meeting in June.

Candidates registered for **Afghanistan's** presidential election, to be held in July. Both the incumbent, Ashraf



► Ghani, and the man he narrowly beat in a run-off last time, Abdullah Abdullah, are running again. The Taliban attacked a military-intelligence base, killing scores of people.

Joko Widodo, the president of **Indonesia**, announced that he was pardoning Abu Bakar Basyir, a cleric who was the spiritual leader of Jemaah Islamiah, an Islamist terrorist group that killed over 200 people by exploding bombs in a tourist resort in Bali in 2012. Uproar ensued: Mr Basyir has not renounced violence and is expected to go back to inciting it. In the run-up to an election, the president is keen to dispel the widespread charge that he is insufficiently pious.

Priyanka Gandhi was appointed to a post in Congress, **India's** main opposition party. She is the sister of its current leader, Rahul Gandhi; their father, grandmother and great-grandfather all served as

India's prime minister. The appointment may energise the party ahead of an election.

—
The man who won the count
The **Democratic Republic of Congo's** constitutional court declared Félix Tshisekedi the winner of the presidential election, despite compelling evidence that the result had been rigged. It threw out an appeal by Martin Fayulu, who is thought to have won with about 60% of the vote.

The security forces in **Zimbabwe** were accused of abducting and torturing members of the opposition amid protests against higher fuel prices and the government of Emmerson Mnangagwa. At least 12 people were shot dead and many more injured when police and soldiers fired on demonstrators.

Police in **Ethiopia** arrested Bereket Simon, a former gov-

ernment minister and ally of the late prime minister, Meles Zenawi. It is the most prominent arrest thus far in a crackdown on corruption led by Abiy Ahmed, the current prime minister.

Israel bombed what it said were **Iranian** military targets in **Syria** in retaliation for a missile launched towards the Golan Heights. By confirming the attack, Israel departed from its long-held policy of neither admitting nor denying its air strikes against the blood-spattered Syrian dictatorship.

—
No way to run a country

As the **shutdown** of the American government entered its fifth week, the Senate prepared legislation that would temporarily fund services. In a public spat with the Democrats, Donald Trump conceded that he could not give his state-of-the-union speech to Congress until the situation was resolved. The

president described the hundreds of thousands of federal workers who have gone without pay as "great patriots".

America's Supreme Court reinstated a ban on **trans-gender troops** from serving in the armed forces.



Kamala Harris announced that she will run for the Democrats' presidential nomination. Ms Harris has been a senator for California for two years. She is the third prominent candidate to join what will eventually become a very crowded field.

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The French finance minister said that **Carlos Ghosn** had resigned as chief executive and chairman of Renault, a day before the carmaker's board was due to meet to discuss replacing him. The French government owns a stake in Renault and had pressed it to remove Mr Ghosn following alleged financial wrongdoing at Nissan, Renault's global partner. Mr Ghosn was sacked as Nissan's chairman when the scandal broke last November. He has again been denied bail in Tokyo and remains in custody. He denies wrongdoing.

Trying to find a new roadmap

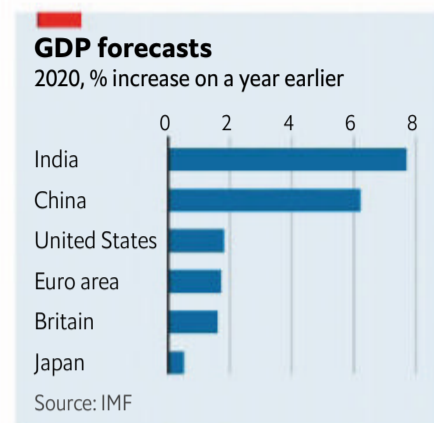
Net profit at **Ford** fell by half last year, to \$3.7bn, and it reported a fourth-quarter loss, as it continued to perform poorly in regions outside North America. The carmaker said it was facing many difficulties, including the absorption of tariff-related costs. It promised weary investors that it would soon give details of its crucial restructuring.

Tesla's share price took a hammering after Elon Musk said he would have to cut full-time jobs by 7%. The electric-car maker's workforce grew by 30% last year, which its boss conceded was "more than we can support". Production of the Model 3 has ramped up, but Mr Musk wants to offer the mass-market sedan to customers at \$35,000; the cheapest versions start at around \$44,000.

The French data-protection office fined **Google** €50m (\$57m) for the cursory manner in which it gained users' consent. It was the first penalty levied against a big tech firm for breaching the European Union's **General Data Protection Regulation**, which asserts that firms must be explicit when seeking such consent. Complaints had been lodged by data-privacy groups, including Vienna-based None of Your Business.

The EU's antitrust commissioner fined **MasterCard** €571m (\$650m) for obstructing

merchants' access to cross-border card-payment services. The credit-card network co-operated with the investigation and says it stopped the practice years ago.



The IMF warned that "the global expansion is weakening and at a rate that is somewhat faster than expected". The fund revised down its forecasts, particularly for **advanced economies**. The world's economy is forecast to grow by 3.6% in 2020. Although that is stronger than in some previous years, the IMF thinks "the risks to more significant downward corrections are rising", in part because of tensions over trade and uncertainty about Brexit.

The IMF also cautioned that the slowdown in **China** could be deeper than expected, especially if the trade spat with America is unresolved. Its economy grew by 6.6% last

year, the slowest annual pace since 1990, when sanctions were imposed following the Tiananmen Square massacre.

House sales in America (excluding newly built homes) fell by 10% in December compared with the same month in 2017, according to the National Association of Realtors. The median price of a home grew by just 2.9%, to \$253,600.

It emerged that two activist hedge-funds have built stakes in **eBay** and are pushing the e-commerce company to spin off StubHub, its website for selling tickets, and its classified-ads division. eBay's share price fell by a third last year from a peak in early February, as it struggled to compete with Amazon.

UBS said clients pulled a net \$7.9bn from its wealth-management business in the last three months of 2018 amid a market sell-off. The Swiss bank's pre-tax profit rose by 2% year on year, to \$862m.

The trial began in London of John Varley, the chief executive of **Barclays** from 2004 to 2011, and three other former executives for alleged fraud in a deal with Qatari investors to prop up the bank in 2008. The

four men deny the charges. The case, brought by the Serious Fraud Office, is expected to take up to six months in court. It is the first criminal trial of anyone who headed a big global bank during the financial crisis.

He's for leaving, all right

Dyson, a British manufacturer founded by Sir James Dyson, a prominent Brexiteer, announced that it is to move its headquarters to Singapore. The official reason was to "future-proof" the company. But the timing, and the fact that in October Singapore signed a free-trade deal with the EU, drew derision from Remain supporters and dismay from hard-Brexiteers.

Netflix received its first Oscar nomination for best picture. "Roma", the tale of a maid in Mexico City, gathered ten nominations in all ("Icarus", another Netflix film, won best documentary feature last year). The streaming service gained an extra 8.8m paying subscribers in the fourth quarter of 2018, 7.3m of them outside the United States. They are attracted by its original content. "Bird Box", a horror thriller, was watched by 80m households in its first four weeks on Netflix.



Slowbalisation

A new pattern of world commerce is becoming clearer—as are its costs

WHEN AMERICA took a protectionist turn two years ago, it provoked dark warnings about the miseries of the 1930s. Today those ominous predictions look misplaced. Yes, China is slowing. And, yes, Western firms exposed to China, such as Apple, have been clobbered. But global growth in 2018 was decent, unemployment fell and profits rose. In November President Donald Trump signed a trade pact with Mexico and Canada. If talks over the next month lead to a deal with Xi Jinping, markets will conclude that the trade war is political theatre designed to squeeze a few concessions from China, not blow up commerce.

Such complacency is mistaken. Today's trade tensions are compounding a shift that has been under way since the financial crisis of 2008-09. Cross-border investment, trade, bank loans and supply chains have all been shrinking or stagnating relative to world GDP (see Briefing). Globalisation has given way to a new era of sluggishness. Adapting a term coined by a Dutch writer, we call it "slowbalisation".

The golden age of globalisation, in 1990-2010, was something to behold. Commerce soared as the cost of shifting goods in ships and planes fell, phone calls got cheaper, tariffs were cut and finance liberalised. Business went gangbusters, as firms set up around the world, investors roamed and consumers shopped in supermarkets with enough choice to impress Phileas Fogg.

Globalisation has slowed from light speed to a snail's pace in the past decade for several reasons. The cost of moving goods has stopped falling. Multinational firms have found that global sprawl burns money and that local rivals often eat them alive. Activity is shifting towards services, which are harder to sell across borders: scissors can be exported in 20ft-containers, but hair stylists cannot. And Chinese manufacturing has become more self-reliant, so needs to import fewer parts.

This is the fragile backdrop to Mr Trump's trade war. Tariffs tend to get the most attention. If America ratchets up duties on China in March, as threatened, the average tariff rate on American imports will rise to 3.4%, its highest for 40 years. (Most firms plan to pass the cost on to customers.) Less glaring, but just as pernicious, is that rules of commerce are being rewritten around the world. The principle that investors and firms should be treated equally regardless of their nationality is being ditched.

Evidence for this is everywhere. Geopolitical rivalry is gripping the tech industry, which accounts for about 20% of world stockmarkets. Rules on privacy, data and espionage are splintering. Tax systems are being bent to patriotic ends—in America to prod firms to repatriate capital, in Europe to target Silicon Valley. America and the European Union have new regimes for vetting foreign investment, while China, despite its bluster, has no intention of giving foreign firms a level playing-field. America has weaponised the power it gets from running the world's dollar-payments system, to punish foreigners such as Huawei (see Business section). Even humdrum areas such as accounting and antitrust are fragmenting.

Trade is suffering as firms use up the inventories they had built up in anticipation of higher tariffs. Expect more of this in

2019. But what really matters is firms' long-term investment plans, as they begin to lower their exposure to countries and industries that carry high geopolitical risk or face unstable rules. There are signs that an adjustment is beginning. Chinese investment into Europe and America fell by 73% in 2018. The global value of cross-border investment by multinational companies sank by about 20% in 2018.

The new world will work differently. Slowbalisation will lead to deeper links within regional blocs. Supply chains in North America, Europe and Asia are sourcing more from closer to home. In Asia and Europe most trade is already intra-regional, and the share has risen since 2011. Asian firms made more foreign sales within Asia than in America in 2017. As global rules decay, a fluid patchwork of regional deals and spheres of influence is asserting control over trade and investment. The EU is stamping its authority on banking, tech and foreign investment, for example. China hopes to agree on a regional trade deal this year, even as its tech firms expand across Asia. Companies have \$30trn of cross-border investment in the ground, some of which may need to be shifted, sold or shut.

Fortunately, this need not be a disaster for living standards. Continental-sized markets are large enough to prosper. Some 1.2bn people have lifted themselves out of extreme poverty since 1990, and there is no reason to think that the proportion of paupers will rise again. Western consumers will continue to reap large net benefits from trade. In some cases, deeper integration will take place at a regional level than could have happened at a global one.

Yet slowbalisation has two big disadvantages. First, it creates new difficulties. Between 1990 and 2010 most emerging countries were able to close some of the gap with developed ones. Now more will struggle to trade their way to riches. And there is a tension between a more regional trading pattern and a global financial system in which Wall Street and the Federal Reserve set the pulse for markets everywhere. Most countries' interest rates will still be affected by America's even as their trade patterns become less linked to it, leading to financial turbulence. The Fed is less likely to rescue foreigners by acting as a global lender of last resort, as it did a decade ago.

Second, slowbalisation will not fix the problems that globalisation created. Automation means that there will be no renaissance of blue-collar jobs in the West. Firms will hire unskilled workers in the cheapest places in each region. Climate change, migration and tax-dodging will be even harder to solve without global co-operation. And far from moderating and containing China, slowbalisation will help it win regional hegemony faster.

Globalisation made the world a better place for almost everyone. But too little was done to mitigate its costs. The integrated world's neglected problems have now grown in the eyes of the public to the point where the benefits of the global order are easily forgotten. Yet the solution on offer is not really a fix at all. Slowbalisation will be meaner and less stable than its predecessor. In the end it will only feed the discontent. ■



Venezuela

Removing Maduro

This week an incompetent dictatorship tottered. Good

FOR YEARS Venezuela's socialist regime has seemed on the verge of collapse. It has so mismanaged the economy that GDP has dropped by nearly half since 2013. Inflation last year was thought to be more than 1m per cent. This, plus shortages of food, medicine, running water and electricity, has prompted some 3m Venezuelans, a tenth of the population, to flee the country. Yet its president, Nicolás Maduro, has clung on by flouting the constitution, repressing the opposition and using the country's dwindling income from oil, almost its only export, to pay off the armed forces that support him. On January 10th Latin America's most incompetent ruler was sworn in to a second six-year term.

Yet Mr Maduro's second inauguration also marked the moment his disastrous presidency lost its formal legitimacy. The election he won in May was an up-and-down fraud. Almost all the members of the Lima group, 14 mostly Latin American countries that worry about Venezuela, declared that they would not recognise him as president. More important, the opposition acquired a young, unifying new leader, Juan Guaidó (pictured), who was sworn in on January 5th as president of the national assembly. That puts him in charge of Venezuela's last remaining democratically elected institution.

Suddenly Mr Maduro's demoralised, divided opponents have been galvanised (see Americas section). Tens of thousands of people across the country demonstrated against the regime on January 23rd, the 61st anniversary of the overthrow of Venezuela's previous dictatorship. Among them were many poor Venezuelans. They have not lightly turned against a regime founded in 1999 by their hero, the late Hugo Chávez. Before a cheering crowd in Caracas, the capital, Mr Guaidó proclaimed himself the acting president—a role the constitution gives him when the presidency is vacant. In what looked like a co-ordinated move, President Donald Trump immediately recognised Mr Guaidó as Venezuela's interim leader and most of the Lima group quickly followed.



That raises two questions. How likely is Mr Maduro to hold on to power? And what can the world do to hasten his departure? Mr Maduro has faced down big protests before, most recently in 2017, when more than 100 people were killed, mostly by forces loyal to the regime. Although two dozen members of the national guard in Caracas rebelled this month, the mutiny was quickly put down. There is no sign yet that the top army commanders will transfer their allegiance to Mr Guaidó. It is their loyalty, not the support of the citizens, that keeps Mr Maduro going.

Yet Mr Maduro may be running out of road. For the first time since he won a presidential election, in 2013, he faces a single opposition leader who commands wide support. Mr Guaidó must continue to make clear that, should he exercise power, his first act will be to arrange for free elections. Venezuela's leaders-in-waiting should offer safe passage to Mr Maduro and his cronies to a comfortable refuge, perhaps in Cuba, and a political future to members of the regime who abide by the rules of democracy.

Much has to go right for Mr Maduro's wobble to become his downfall. America and the European Union should use all the tools at their disposal to promote peaceful change by boosting Mr Guaidó's parallel government. That could include putting some of the money paid for oil exports into an account reserved for the national assembly, and using the threat of further sanctions to encourage defections from the regime. The backing of the Lima group will help refute Mr Maduro's taunts that Mr Guaidó is just a gringo stooge. Should its odious regime finally collapse, Venezuela will need massive international support in the form of humanitarian aid, credit and economic and political help.

Until this week, the departure of Mr Maduro and the *chavista* cabal has been at once overdue and also a prospect for the medium term. Today an immiserated, hopelessly misgoverned country may just be on the brink of something better. ■

Drones

Hovering saviour or menace?

Regulators need to encourage drones, but also to protect people from them

WHILE TESTING a drone to detect sharks off a beach in New South Wales last year, Australian lifeguards spotted two young men struggling to swim in the violent surf. The drone was dispatched to drop an inflatable pod, which the men used to reach the shore safely. Such civilian drones are saviours that have helped rescue mountain-climbers and people trapped by natural disasters. They carry emergency medical supplies and organs for transplant. Apart from saving souls, civilian drones are becoming a good business. Goldman Sachs, a bank, reckons that the market will be worth \$100bn by 2020 in areas such as surveying, security and delivery.

The trouble is that drones also endanger life and cause disruption, as they did on January 22nd when Newark airport near New York closed briefly after a drone was seen nearby. Drone sightings at Gatwick airport near London forced it to shut for 36 hours just before Christmas. Three weeks later a drone closed Heathrow, the world's third-busiest airport, for an hour. These were hardly the first such incidents. Stockholm's Arlanda Airport suspended flights in 2017 after spotting a drone. Pilots frequently report near-misses. Because they contain metal parts and potentially explosive lithium-ion batteries, drones can badly damage an aircraft in a collision. They are also used to smuggle ►►

▶ contraband across borders and into prisons. In Yemen Houthi rebels recently used a drone to attack the VIP podium of a military parade-ground, reportedly killing six soldiers.

As with other dual-use technologies, the task for regulators is to encourage the good uses of drones while preventing the bad. The tension between those aims can lead to contradictory impulses. The FBI warned recently that the threat to America from attacks by rogue drones is steadily increasing. The Federal Aviation Administration, meanwhile, is starting to allow some drones to be flown beyond the sight of their operators, which would greatly boost their commercial use. But some in the aviation industry worry that until drones can be incorporated into the air-traffic-control system, the relaxation of safety restrictions could make accidents more likely.

Rules are needed to ensure that drones are safe, and many countries now have such laws. By and large, professional operators and keen hobbyists will respect them, because they will not want to have their flying permits revoked or their equipment confiscated. Stiff penalties and better information can keep irresponsible users in check. Manufacturers can put safeguards in their drones' digital-navigation systems to prevent them being flown too high or too close to sensitive sites such as airports.

But it would be a mistake to pile rules on the industry in order to tackle malicious users, who will simply ignore them. Troublemakers will not register their drones. They will overcome countermeasures by tampering with safety systems or building their

own machines from readily available parts.

Rather than wrap the drone industry in red tape, the security forces need to take on the rogue operators directly (see Science section). The first trick is to identify threats quickly. The best hope, already used by some airports, is three-dimensional radar, which, unlike standard airfield radar, can track a drone flying several kilometres away. This can help airports detect if they have a problem, identify the source of the threat and, most important, rapidly determine when it is safe for flights to resume.

Once a rogue drone has been spotted, it has to be disabled and safely forced down. This comes with risks. Military systems may not be suitable for protecting a big public event or a busy airport surrounded by residential areas. Firing bullets, missiles or lasers risks sending an out-of-control drone crashing into a public place. A better approach is therefore to attempt a "soft kill", using signal-jamming, which can force a drone to land or seize remote control of it. Signal-jamming has to be careful, though, to ensure that aircraft instruments and airfield-navigation and radio systems are not also affected.

Investment in counter-drone systems is helping overcome some of these shortcomings. Other countermeasures can be added as better ones come along. But a technological race between malevolent drone operators and the forces of law and order is inevitable. As the countermeasures advance, regulators need to remember that their job is to hobble the bad guys without undermining the many beneficial uses of drones. ■

Democratic Republic of Congo

The great election robbery

The world should not recognise Congo's stolen election

WHEN THE constitutional court declared him the next president of the Democratic Republic of Congo, Félix Tshisekedi toasted his victory with a glass of champagne. He was due to be inaugurated as *The Economist* went to press. Optimists chirp that this is Congo's first peaceful transfer of power since independence in 1960. South Africa's president, Cyril Ramaphosa, congratulated Mr Tshisekedi and urged "all stakeholders" to accept the result and "continue with a journey of consolidating peace, uniting the people of Congo, and creating a better life for all".

What a travesty. The election was really won by Martin Fayulu, a former oil executive—and by a wide margin. Bishops from the Catholic church, one of Congo's few functional and respected institutions, sent out 40,000 observers. According to their tally Mr Fayulu won more than 60% of the vote. This matched data leaked by officials, which showed that 59% backed him. Mr Tshisekedi came a distant second with 19% of the vote. Emmanuel Ramazani Shadary, a former interior minister handpicked to succeed Joseph Kabila, the unpopular incumbent, won a paltry 18.5% (see Middle East & Africa section).

It is hard to exaggerate the scale and flagrancy of the fraud. Before the vote, the Kabila regime used all its powers to nobble the opposition, barring popular candidates, banning rallies, firing on crowds and using state resources to promote the hapless Mr Shadary. When that was not enough, because voters are thoroughly sick of their corrupt, incompetent rulers, the count was

rigged. Declaring Mr Shadary the winner would not have passed the laugh test, so Mr Tshisekedi, the callow son of a revered opposition leader who died in 2017, was tapped instead. Many suspect a stitch-up. Mr Kabila's party still controls the national assembly. Mr Tshisekedi says they can work together. Mr Fayulu, by contrast, seemed more likely to investigate the graft that flourished during the 18 years that Mr Kabila was in charge. Small wonder the establishment fears him.

At first the stolen election prompted a sharp response from the African Union (AU), a regional body. After the electoral commission announced the result but before the constitutional court endorsed it, the AU called on Congo to hold off on declaring Mr Tshisekedi the winner, adding that it would send a delegation of regional leaders to investigate. The Southern African Development Community (SADC), of which Congo is a member, called for a recount. But after the court, packed with government stooges, declared Mr Tshisekedi the victor, SADC backed down almost immediately. The AU and many Western governments seem willing to turn a blind eye, too.

Some argue that a transition, no matter how flawed, will break Mr Kabila's hold on the country and set a precedent for cleaner elections in five years. Others are more cynical. There is little they can do for Congo, they shrug. It is vast, poor, violent and practically roadless. It has never been well or honestly governed. Not only is it pointless to make a fuss; it might make mat- ▶▶



ters worse. Calls for a recount might spark violence, some fear. This is not an idle worry. Congo's most recent full-blown civil war, from 1998 to 2003, sucked in nine countries and caused perhaps 1m-5m deaths (mostly from war-induced starvation and disease), depending on which estimate you believe. Thanks to more recent fighting between mass-raping militias, some 4m of Congo's roughly 80m people have fled their homes and 13m desperately need humanitarian aid. Rather than get embroiled in this mess, many leaders of other countries would prefer to grapple with troubles back home.

Yet there are costs to ignoring Congo's great election robbery. Calling Mr Tshisekedi the winner fools no one. Mr Fayulu's supporters are justifiably outraged. Mr Kabila's rich cronies are not happy, either—they had hoped that he could rig the poll more competently. Congo now has an illegitimate regime, riven with internal bickering, ineptly running a country in severe eco-

nomical distress. That is hardly a recipe for stability, as riots and repression in Zimbabwe demonstrate.

Democracy is beleaguered across the world. If even its supporters, such as Mr Ramaphosa, do not speak up when an election is ostentatiously filched, autocrats everywhere are emboldened. The AU is not completely powerless. After it adopted a "zero-tolerance" policy for coups in 2000, the number of successful military takeovers in Africa fell, from 38 between 1980 and 2000 to only 15 since then. The policy is inconsistently applied. The AU pretended to believe that the coup against Robert Mugabe in Zimbabwe in 2017 was not a coup (and that the election that replaced him with Emmerson Mnangagwa was fair). Zimbabwe under Mr Mnangagwa is in turmoil. Far better to call a coup a coup and a stolen election stolen. No one should recognise Mr Tshisekedi's election. Africa will not be stable until Africans freely choose their rulers. ■

Index funds

Beating the pros

No one did more for the small investor than Jack Bogle

IN DECEMBER 2009 Paul Volcker, a revered former chairman of the Federal Reserve, took part in a conference on the future of finance. America was plunging into its worst recession since the 1930s, pushed to the brink of disaster by toxic products concocted by Wall Street alchemists. To underline his argument, Mr Volcker made a bold claim: the most useful financial innovation—indeed the only beneficial one—of the past few decades was the automated teller machine, or ATM.

Mr Volcker is right about many things, but wrong on this one. The prize must go to the index fund, pioneered in the mid-1970s by Jack Bogle, who died last week, aged 89.

When Vanguard, the mutual-fund group founded by Mr Bogle, launched its first index fund in 1975 after he had spotted the idea in an article by Paul Samuelson, a Nobel laureate, it was not met with great enthusiasm. Wall Street denounced Vanguard as "unAmerican". It raised a mere \$17m in its first five years. However, in the past decade index investing has grown from a scruffy insurgency into a mainstay of finance. Today index funds are worth around a sixth of the value of America's stockmarket. In total, Bloomberg reckons, Mr Bogle's approach may have saved investors \$1trn in fees. And still indexation attracts undeserved criticism.

The idea behind it is simple. A mutual fund can mimic the S&P 500 index of leading American stocks. An index fund holds stocks in proportion to their market capitalisation. Because the fund owns all the stocks in the index, it is diversified. Above all, it is cheap to run. It has no need for expensive analysts. Turnover costs are trivial. You buy stocks when they join the index, and sell them when they leave. In between you just hold them.

One charge is that index investing adds to stockmarket volatility and inflates bubbles. This misunderstands the nature of a market-cap index. It weights each stock by its value. If a faddish stock's price goes up rapidly, its weight in the index increases accordingly, and its value in the indexed portfolio increases automatically. No additional purchase is needed. If anything, index

funds make markets less volatile. In panics they have generally been more stable than active funds.

Another change concerns the effect on how well capital is allocated. The case for choosing an index fund rests on the idea that the stockmarket is broadly efficient, in the sense that relevant news about company prospects is reflected in share prices. This depends on the efforts of "active" investors shunning overpriced stocks and buying bargains. Yet as more people invest passively in index funds, might the market become less efficient? And might that create more openings for stockpickers?

That would require active funds to be in a small minority—and they are still far from that. Besides, because index funds probably displace the most inept stockpickers, the market becomes more efficient. By thus taking "dumb" money out of active investing, indexing has made for a keener battle between the remaining stockpickers.

There is a way for active investors to conspire against index funds. The S&P 500 captures most of the value of the stockmarket, but not all of it. So arbitrageurs can make gains by buying stocks that will soon qualify for the index and selling those they will replace. Still, the drag on index-fund performance is modest.

The latest complaint is that, because index funds own sizeable stakes in numerous big firms in each industry, they are a threat to competition. Before he died, Mr Bogle dismissed such charges as "absurd". Trustbusters are investigating, but the great man may yet be proved right.

Regardless, Mr Bogle should be celebrated as the patron saint of the small investor. Not everyone has the time, patience or skill to run their own stock portfolio. Before he came along, ordinary investors paid a hefty charge for a mutual fund that would usually underperform the market average. Because of him, millions of punters now get the average stockmarket return—and so beat most professionals—for a negligible fee. He was the man who created something supposed to be as rare as hen's teeth or rocking-horse dung: a useful financial innovation. ■



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Insecurity in old age

Regarding your article on housing demography in Britain (“The silver lining”, January 5th), many people in the baby-boom generation are actually on low incomes, with small pensions and trapped in properties that are in poor condition. One-fifth of the homes occupied by older people in England failed the Decent Homes Standard in 2014. And not all older people will one day move into specialist accommodation. Most live in ordinary housing, largely through their own choice rather than because of stamp duty or an undersupply of specialist housing.

More and more people in later life do not own their homes but rent privately, in a sector where tenancies can be insecure. Some estimates suggest a third of people aged 60 and over will live in private rental properties by 2040. The fact is, many baby-boomers

either don’t want to downsize or don’t have the option. The lack of suitable homes prevents many people moving even if they wanted to, and new homes are not being built for the needs of our ageing population. Although wealthier people can move more easily, many on low- and middle-incomes can find themselves trapped in homes that are no longer appropriate for them as they age.

RACHAEL DOCKING
Senior programme manager
Centre for Ageing Better
London

A blow for conservatives

You mentioned the three largest party groups in the European Parliament (“Political climate change”, January 5th). In fact the Alliance of Liberals and Democrats for Europe was overtaken at the elections in 2014 by the European Conservatives and Reformists (ECR) as the third-biggest group. The

ECR’s over-arching philosophy is a type of Anglosphere free-market conservatism. The outlook for the ECR after this year’s elections in May is less than assured. The gap left by the departure of British Conservative MEPs will probably be filled with more socially conservative MEPs from central and east European parties similar to Poland’s Law and Justice. It might also be added as an aside that David Cameron enthusiastically supported the setting up of the ECR in 2005, proposing that his Conservative MEPs leave the centre-right European People’s Party (EPP) benches to strike out on their own. That decision was not forgotten by prominent EPP figures such as Angela Merkel ten years later, when Mr Cameron was attempting to re-negotiate Britain’s terms of EU membership ahead of the referendum in 2016.

MARTIN STEVEN
Lecturer in European politics
University of Lancaster

Britain’s politics in revolt

If Bagehot (January 19th) is right that British politics is now in a period equivalent to the 1850s let us hope that we are nearer the end of that decade than the beginning. Its succession of unstable coalitions came to an end only in 1859 when four mutually hostile factions managed to come together in a meeting in Willis’s Rooms in St James’s to form the Liberal Party. That party proceeded to remove the Conservatives from office and form a government.

Some eerie parallels exist between then and now. For example, the radical John Bright’s view of Lord Palmerston’s foreign policy (“one long crime”) echoes what Liberal Democrats now think of Tony Blair’s Iraq fiasco. One hopes, however, that any new Liberal Party selects its leader by a more reliable method than the one used in 1859. Unable to decide between Palmerston ▶▶

The advertisement is split into two main visual sections. On the left, a woman in a red top and tan pants stands in a field of tall grass, holding a blue and white plaid blanket that is blowing in the wind. In the background, several wind turbines are visible against a bright, cloudy sky. On the right, there is a close-up, low-angle shot of a gas burner with a bright blue flame. The background of this section is a dark, blurred interior space with a window showing a warm light.

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▶ and Lord Russell, the meeting resolved to let Queen Victoria decide. No one told her that she could pick only one of the two, and so she attempted to appoint Lord Granville instead, before being politely but firmly asked to try again.

Mr Blair might like to note that she chose Palmerston.
DAVID HOWARTH
Professor of law and public policy
University of Cambridge

Pakistan's prime minister

The fact that Imran Khan is equally popular among “urban and often secular middle classes” in Pakistan as well as “rural conservatives” is so painful and unpalatable to *The Economist* that you go to any extent to malign our prime minister (“Tales of self-harm”, January 12th). Using a quote containing swear words about Mr Khan fell below the objective and civilised journalistic norms that readers expect from a

publication like yours.

Equally unpalatable to you are Pakistan's nuclear weapons, the success of its armed forces in the war against terrorism, its defiant posture to the regional bully and the role of Pakistan's army in protecting and promoting the national interest. A particular brand of writers has been criticising the army for many years for allegedly not being on the same page as the civilian leadership. The latest addition to your charge-sheet is the army's role in protecting the route of the China-Pakistan Economic Corridor. None else but *The Economist* portrays our generals as “handsomely...making out from CPEC”. The same generals would be good enough for you only if Pakistan abandoned CPEC, accepted all deals from across the border, downgraded its nuclear deterrent and defined its national security parameters in the light of sermons from a few fugitives in self-exile.

This is not going to happen. It is for the people of Pakistan and its institutions to decide which path to tread. Their sole prerogative is to define and defend what they perceive to be their national interest.

ZAHOO AHMAD BARLAS
Director-general, external publicity
Ministry of Information
Islamabad

Roger that

Your leader calling for better military communications described the continued use of fax messages between America and China as a “sobering thought” (“Military misunderstandings”, December 22nd). Fax machines are still used because you want people to think and write down in precise words what they mean and to give the other side time to understand the words. You do not want people with their finger on the nuclear button verbally screaming at one

another in different languages.

If you are looking for excitement, we could always start tweeting one another.

STEPHEN BORKOWSKI
Pittsburg, Texas

In full bloom

Chairman Mao had a fondness for botanical metaphors (“Flower power”, January 5th). Perhaps not as well known as his “let-a-hundred-flowers-blossom” analogy—which was used to trick intellectuals into speaking out, leading to their prosecution—he also once remarked that human heads are not like chives: once cut off they will not grow back again.

JIANG XIAOHONG
London

Letters are welcome and should be addressed to the Editor at The Economist, The Adelphi Building, 1-11 John Adam Street, London WC2N 6HT
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Director Vaccine Supply and Demand Geneva, Switzerland

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The Gavi Alliance has retained Russell Reynolds Associates to advise on this appointment. For further information about the position and additional details on qualifications, requirements, terms and conditions of service and how to apply, please visit: www.rresponses.com

The closing date for applications is 15 February 2019.





The global list

Globalisation has faltered and is now being reshaped

LARGE AND sustained increases in the cross-border flow of goods, money, ideas and people have been the most important factor in world affairs for the past three decades. They have reshaped relations between states both large and small, and have increasingly come to affect internal politics, too. From iPhones to France's *gilets jaunes*, globalisation and its discontents have remade the world.

Recently, though, the character and tempo of globalisation have changed. The pace of economic integration around the world has slowed by many—though not all—measures. “Slowbalisation”, a term used since 2015 by Adjiedj Bakas, a Dutch trend-watcher, describes the reaction against globalisation. How severe will it become? How much will a trade war launched by America’s president, Donald Trump, exacerbate it? What will global commerce look like in the aftermath?

There have been periods of more and less globalisation throughout history. Today’s era sprang from America’s sponsorship of a new world order in 1945, which al-

lowed cross-border flows of goods and capital to recover after years of war and chaos. After 1990 this bout of globalisation went into warp speed as China rebounded, India and Russia abandoned autarky and the European single market came into its own. Containerising freight sent shipping costs plummeting. America signed NAFTA, helped create the World Trade Organisation and supported global tariff cuts. Financial liberalisation freed capital to roam the world in search of risk and reward.

Harder blew the trade winds

World trade rocketed as a result, from 39% of GDP in 1990 to 58% last year. International assets and liabilities rose too, from 128% to 401% of GDP, as did the stock of migrants, from 2.9% to 3.3% of the world’s population. On the first two of those measures the world is far more integrated than in 1914, the peak of the previous age of globalisation. Nonetheless, parts of the world remain poorly integrated into the global economy. About 1bn people live in countries where trade is less than a quarter of

GDP. World trade can be split into tens of thousands of separate potential corridors between pairs of countries: America and China, say, or Gabon and Denmark. In a quarter of those corridors there was no recorded commerce at all.

When did the slowdown begin? Consider a dozen measures of global integration (see chart 1 on next page). Eight are in retreat or stagnating, of which seven lost steam around 2008. Trade has fallen from 61% of world GDP in 2008 to 58% now. If these figures exclude emerging markets (of which China is one), it has been flat at about 60%. The capacity of supply chains that ship half-finished goods across borders has shrunk. Intermediate imports rose fast in the 20 years to 2008, but since then have dropped from 19% of world GDP to 17%. The march of multinational firms has halted. Their share of global profits of all listed firms has dropped from 33% in 2008 to 31%. Long-term cross-border investment by all firms, known as foreign direct investment (FDI), has tumbled from 3.5% of world GDP in 2007 to 1.3% in 2018.

As cross-border trade and companies have stagnated relative to the economy, so too has the intensity of financial links. Cross-border bank loans have collapsed from 60% of GDP in 2006 to about 36%. Excluding rickety European banks, they have been flat at 17%. Gross capital flows have fallen from a peak of 7% in early 2007 to 1.5%. When globalisation boomed, emerging economies found it easy to catch up ▶▶

▶ with the rich world in terms of output per person. Since 2008 the share of economies converging in this way has fallen from 88% to 50% (using purchasing-power parity).

A minority of yardsticks show rising integration. Migration to the rich world has risen slightly over the past decade. International parcels and flights are growing fast. The volume of data crossing borders has risen by 64 times, according to McKinsey, a consulting firm, not least thanks to billions of fans of Luis Fonsi, a Puerto Rican crooner with YouTube's biggest-ever hit.

Braking point

There are several underlying causes of this slowbalisation. After sharp declines in the 1970s and 1980s trading has stopped getting cheaper. Tariffs and transport costs as a share of the value of goods traded ceased to fall about a decade ago. The financial crisis in 2008-09 was a huge shock for banks. After it, many became stingier about financing trade. And straddling the world has been less profitable than bosses hoped. The rate of return on all multinational investment dropped from an average of 10% in 2005-07 to a puny 6% in 2017. Firms found that local competitors were more ca-

pable than expected and that large investments and takeovers often flopped.

Deep forces are at work. Services are becoming a larger share of global economic activity and they are harder to trade than goods. A Chinese lawyer is not qualified to execute wills in Berlin and Texan dentists cannot drill in Manila. Emerging economies are getting better at making their own inputs, allowing them to be self-reliant. Factories in China, for example, can now make most parts for an iPhone, with the exception of advanced semiconductors. Made in China used to mean assembling foreign widgets in China; now it really does mean making things there.

What might the natural trajectory of globalisation have looked like had there been no trade war? The trends in trade and supply chains appear to suggest a phase of saturation, as the pull of cheap labour and multinational investment in physical assets have become less important. If left to their own devices, however, financial flows such as bank loans might have picked up as the shock of the financial crisis receded and Asian financial institutions gained more reach abroad.

Instead, the Trump administration has

charged in. Its signature policy has been a barrage of tariffs, which cover a huge range of goods, from tyres to edible offal. The revenue America raised from tariffs, as a share of the value of all imports, was 1.3% in 2015. By October 2018, the latest month for which data are available, it was 2.7%. If America and China do not strike a deal and Mr Trump acts on his threats, that will rise to 3.4% in April. The last time it was that high was in 1978, although it is still far below the level of over 50% seen in the 1930s.

Tariffs are only one part of a broad push to tilt commerce in America's favour. A tax bill passed by Congress in December 2017 was designed to encourage firms to repatriate cash held abroad. They have brought back about \$650bn so far. In August 2018 Congress also passed a law vetting foreign investment, aimed at protecting American technology companies.

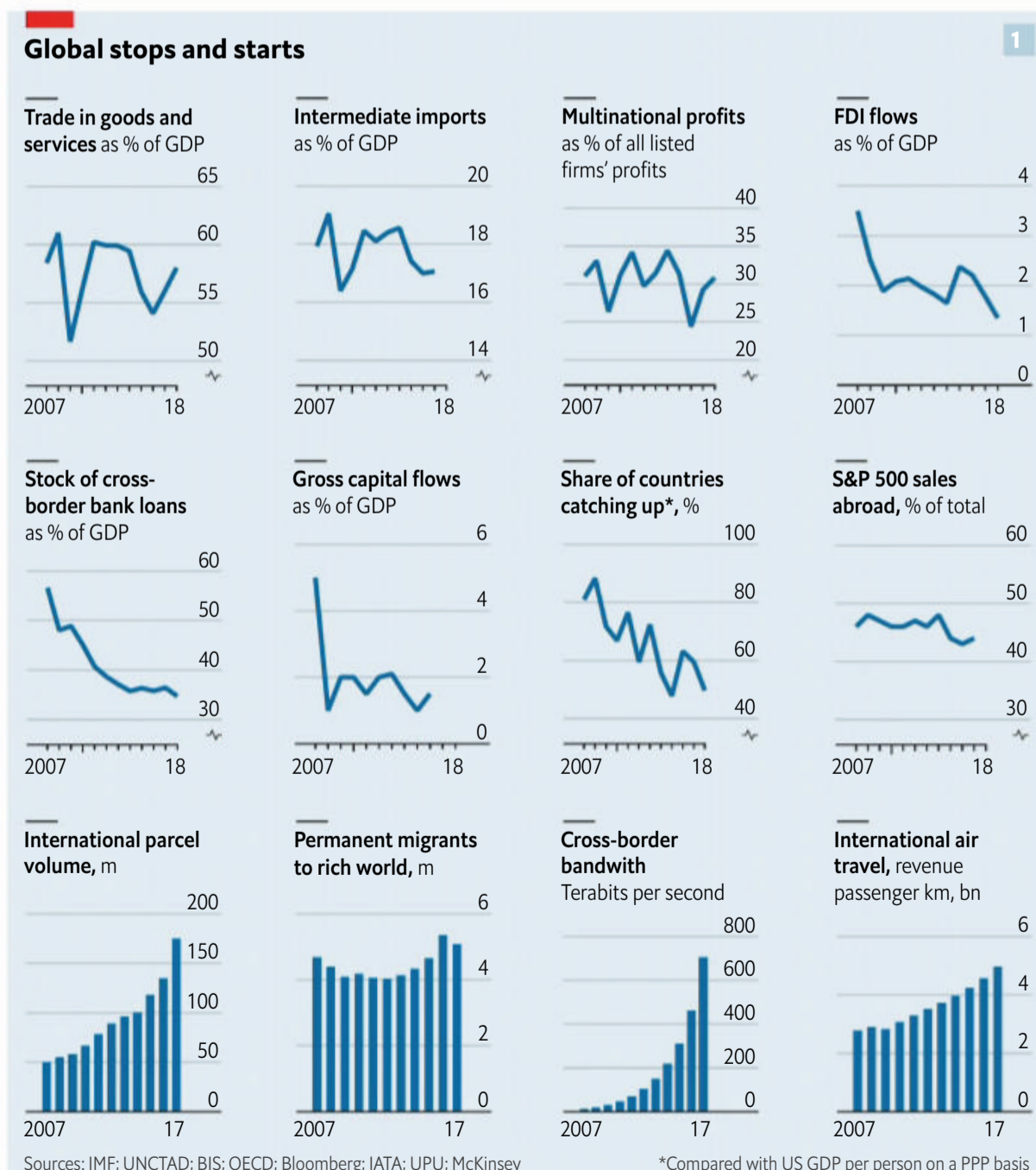
America's control of the dollar-based payments system, the backbone of global commerce, has been weaponised. ZTE, a Chinese technology firm, was temporarily banned from doing business with American firms. The practical consequence was to make it hard for it to use the global financial system, with devastating results. Another firm, Huawei, is being investigated as a result of information from an American monitor placed inside a global bank, who raised a flag about the firm busting sanctions. The punishment could be a ban on doing business in America, which in effect means a ban on using dollars globally.

The administration's attacks on the Federal Reserve have undermined confidence that it will act as a lender of last resort for foreign banks and central banks that need dollars, as it did during the financial crisis. The boss of an Asian central bank says in private that it is time to prepare for the post-American era. America has abandoned climate treaties and undermined bodies such as the WTO and the global postal authority.

On the counterattack

Other countries have reciprocated in kind if not in degree. As well as raising tariffs of its own, China used its antitrust apparatus in July to block the acquisition of NXP, a Dutch chip firm, by Qualcomm, an American one. Both do business in China. It is also pursuing an antitrust investigation against a trio of foreign tech firms—Samsung, Micron and SK Hynix—which its domestic manufacturers complain charge too much. Since November the French state has taken an overt role in the row between Renault and Nissan, having sat in the back seat for years.

Most multinational firms spent 2018 insisting to investors that this trade war did not matter. This is odd, given how much effort they spent over the previous 20 years lobbying for globalisation. *The Economist* ▶



► has reviewed the investor calls in the second half of 2018 of about 80 of the largest American firms which have given guidance about the impact of tariffs. The hit to total profits was about \$6bn, or 3%. Most firms said they could pass on the costs to customers. Many claimed their supply chains were less extended than you might think, with each region a self-contained silo.

This blasé attitude has begun to crumble in the past eight weeks, as executives factor in not just the mechanical impact of tariffs but the broader consequences of the trade war on investment and confidence, not least in China. On December 18th Federal Express, one of the world's biggest logistics firms, said that business was slowing. Estimates for the firm's profits have dropped by a sixth since then. On January 2nd Apple said that trade tensions were hurting its business in China, and five days later Samsung gave a similar message.

Temporary manoeuvring by firms to get round tariffs may have created a sugar high that is now ending. Some firms have been "front-running" tariffs by stockpiling inventories within America. Reflecting this, the price to ship a container from Shanghai to Los Angeles soared in the second half of 2018, compared with the price to ship one to Rotterdam. But this effect is unwinding and prices to Los Angeles are falling again as global export volumes slow.

America has had bouts of protectionism before, as the historian Douglas Irwin notes, only to return to an open posture. Nonetheless investors and firms worry that this time may be different. Uncle Sam is less powerful than during the previous bout of protectionism, which was aimed at Japan. Its share of global GDP is roughly a quarter, compared with a third in 1985. Fear of trade and anger about China is bipartisan and will outlive Mr Trump. And damage has been done to American-led institutions, including the dollar system. Firms worry that the full-tilt globalisation seen between 1990 and 2010 is no longer unwritten by America and no longer commands popular consent in the West.

Few quick fixes

Faced with this, some things are easy to fix. The boss of one big multinational is planning to end its practice of swapping board seats with a Chinese firm, in order to avoid political flak in America. Supply chains take longer to adjust. Multinationals are sniffing out how to shift production from China. Kerry Logistics, a Hong Kong firm, has said that trade tensions are boosting activity in South-East Asia. Citigroup, a bank, has seen a pickup in deal flows between Asian countries such as South Korea and India.

An exodus cannot happen overnight, however. Vietnam is rolling out the red carpet but its two big ports, Ho Chi Minh City



and Haiphong, each have only a sixth of the capacity of Shanghai. Apple, which has a big supply chain in China, is committed to paying its vendors \$42bn in 2019 and the contracts cannot be cancelled. It relies on a long tail of 30-odd barely profitable suppliers and assemblers of components, which it squeezes. If these firms were asked to shift their factories from China they might struggle to do so quickly—the cost could be anywhere between \$25bn and \$90bn.

Over time, however, firms will apply a higher cost of capital to long-term investments in industries that are politically sensitive, such as tech, and in countries that have fraught trade relations. The legal certainty created by NAFTA in 1994 and China's entry into the WTO in 2001 boosted multinational investment flows. The removal of certainty will have the opposite effect.

Already, activity in the most politically sensitive channels is tumbling. Investment by Chinese multinationals into America and Europe sank by 73% in 2018. Overall global FDI fell by 20% in 2018, according to UNCTAD, a multilateral body. Some of that reflects an accounting quirk as American firms adjust to recent tax reforms. Still, in the last few weeks of 2018, one element of FDI, cross-border takeovers, slipped compared with the past few years. If you assume that the rate of tax repatriation fades and that deal flows are subdued, FDI this year might be a fifth lower than in 2017.

These trends can be used as a crude indicator of the long-run effect of a continuing trade war. Assume that FDI does not pick up, and also that the recent historical relationship between the stock of FDI and trade can be extrapolated. On this basis, exports would fall from 28% of world GDP to 23% over a decade. That would be equivalent to a third of the proportionate drop seen between 1929 and 1946, the previous

crisis in globalisation.

Perhaps firms can adapt to slowbalisation, shifting away from physical goods to intangible ones. Trade in the 20th century morphed three times, from boats laden with metals, meat and wool, to ships full of cars and transistor radios, to containers of components that feed into supply chains. Now the big opportunity is services. The flow of ideas can pack an economic punch; over 40% of the productivity growth in emerging economies in 2004-14 came from knowledge flows, reckons the IMF.

Overall, it has been a dismal decade for exports of services, which have stagnated at about 6-7% of world GDP. But Richard Baldwin, an economist, predicts a cross-border "globotics revolution", with remote workers abroad becoming more embedded in companies' operations. Indian outsourcing firms are shifting from running functions, such as Western payroll systems, to more creative projects, such as configuring new Walmart supermarkets. In November TCS, India's biggest firm, bought w12, a digital-design studio in London. Cross-border e-commerce is growing, too. Alibaba expects its Chinese customers to spend at least \$40bn abroad in 2023. Netflix and Facebook together have over a billion cross-border customers.

Services rendered

It is a seductive story. But the scale of this electronic mesh can be overstated. Typical American Facebook users have 70% of their friends living within 200 miles and only 4% abroad. The cross-border revenue pool is relatively small. In total the top 1,000 American digital, software and e-commerce firms, including Amazon, Microsoft, Facebook and Google, had international sales equivalent to 1% of all global exports in 2017. Facebook may have a billion foreign users but in 2017 it had similar sales abroad to Mondelez, a medium-sized American biscuit-maker.

Technology services are especially vulnerable to politics and protectionism, reflecting concerns about fake news, tax-dodging, job losses, privacy and espionage. Here, the dominant market shares of the companies involved are a disadvantage, making them easier to target and control. America discourages Chinese tech firms from operating at scale within its borders and American companies like Facebook and Twitter are not welcome in China.

This sort of behaviour is spreading. Consider India, which Silicon Valley had hoped was an open market where it could build the same monopolistic positions it has in the West. On December 26th India passed rules that clobber Amazon and Walmart, which dominate e-commerce there, preventing them from owning inventory. The objective is to protect local digital and traditional retailers. Draft rules revealed in ►

July would require internet firms to store data exclusively in India. A third set of rules went live in October, requiring financial firms to store data locally, too.

Furthermore, trade in services might bring the kind of job losses that led manufacturing trade to become unpopular. Imagine, for example, if India's IT services firms, experts at marshalling skilled workers, doubled in size. Assuming each Indian worker replaced a foreign one, then 1.5m jobs would be lost in the West. And even the flow of raw ideas across borders could be slowed. The White House has considered restricting Chinese scientists' access to research programmes. America's new investment-vetting regime could hamper venture-capital activity. Technology services will not evade the backlash against globalisation, and may make it worse.

As globalisation fades, the emerging pattern of cross-border commerce is more regional. This matches the trend of shorter supply chains and fits the direction of geopolitics. The picture is clearest in trade. The share of foreign inputs that cross-border supply chains source from within their own region—measured using value added—has risen since 2012 in Asia, Europe and North America, according to the OECD, a club of mostly rich countries (see chart 2).

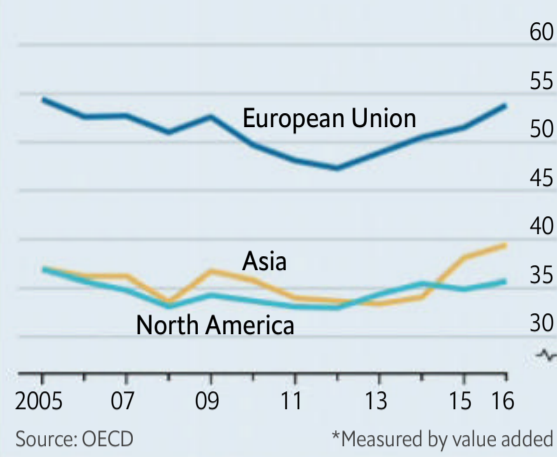
The pattern changes

Multinational activity is becoming more regional, too. A decade ago a third of the FDI flowing into Asian countries came from elsewhere in Asia. Now it is half. If you put Asian firms into two buckets—Japanese and other Asian firms—each made more money selling things to the other parts of Asia than to America in 2018. In Europe around 60% of FDI has come from within the region over the past decade. Outside their home region, European multinationals have tilted towards emerging markets and away from America. American firms' exposure to foreign markets of any kind has stagnated for a decade as firms have made hay at home.

The legal and diplomatic framework for trade and investment flows is becoming more regional. The one trade deal Mr Trump has struck is a new version of NAFTA, known as USMCA. On November 20th the EU announced a new regime for screening foreign investment. China is backing several regional initiatives, including the Asian Infrastructure Investment Bank and a trade deal known as RCEP. Tech governance is becoming more regional, too. Europe now has its own rules for the tech industry on data (known as GDPR), privacy, antitrust and tax. China's tech firms have rising influence in Asia. No emerging Asian country has banned Huawei, despite Western firms' security concerns. The likes of Alibaba and Tencent are investing heavily across South-East Asia.

Chain reaction

Share of cross-border supply-chain foreign inputs* that are from the same region, %



Both Europe and China are trying to make their financial system more powerful. European countries plan to bring more derivatives activity from London and Chicago into the euro area after Brexit, and are encouraging a wave of consolidation among banks. China is opening its bond market, which over time will make it the centre of gravity for other Asian markets. As China's asset-management industry gets bigger it will have more clout abroad.

Yet the shift to a regional system comes with three big risks. One is political. Two of the three zones lack political legitimacy. The EU is unpopular among some in Europe. Far worse is China, which few countries in Asia trust entirely. Traditionally, economic hegemony is consumer-centric economies which create demand in other places by buying lots of goods from abroad, and which often run trade deficits as a result. Yet both China and Germany are mercantilist powers that run trade surpluses. As a result there could be lots of tensions over sovereignty and one-sided trade.

The second risk is to finance, which remains global for now. The portfolio flows sloshing around the world are run by money-management firms that roam the globe. The dollar is the world's dominant curren-

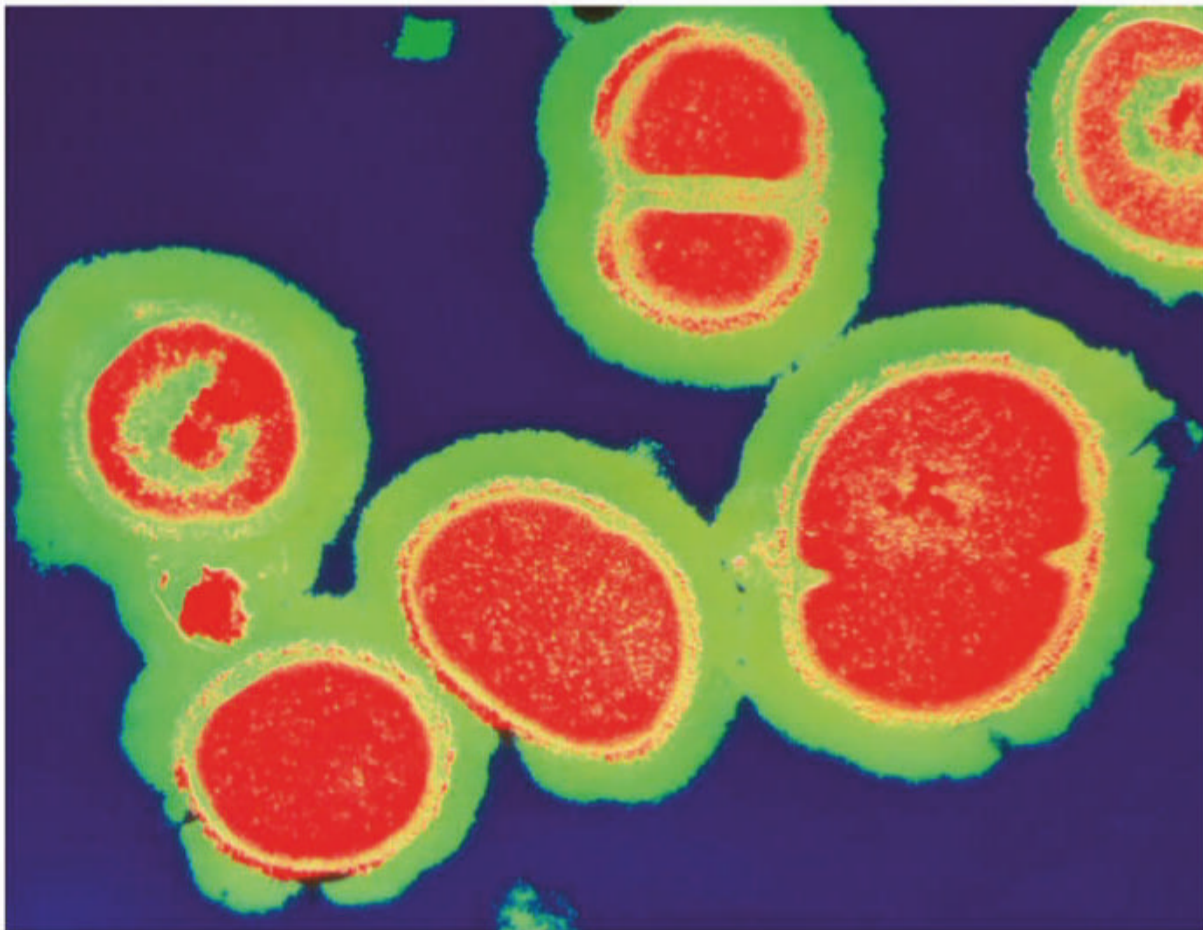
cy, and the decisions of the Fed and gyrations of Wall Street influence interest rates and the price of equities around the world. When America was ascendant the patterns of commerce and the financial system were complementary. During a boom healthy American demand lifted exports everywhere even as American interest rates pushed up the cost of capital. But now the economic and financial cycles may work against each other. Over time this will lead other countries to switch away from the dollar, but until then it creates a higher risk of financial crises.

The final danger is that some countries and firms will be caught in the middle, or left behind. Think of Taiwan, which makes semiconductors for both America and China, or Apple, which relies on selling its devices in China. Africa and South America are not part of any of the big trading blocks and lack a centre of gravity.

Many emerging economies now face four headwinds, worries Arvind Subramanian, an economist and former adviser to India's government: fading globalisation, automation, weak education systems that make it hard to exploit digitalisation fully, and climate-change-induced stress in farming industries. Far from making it easier to mitigate the downsides of globalisation, a regional world would struggle to solve worldwide problems such as climate change, cybercrime or tax avoidance.

Viewed in the very long run, over centuries, the march of globalisation is inevitable, barring an unforeseen catastrophe. Technology advances, lowering the cost of trade in every corner of the world, while the human impulse to learn, copy and profit from strangers is irrepressible. Yet there can be long periods of slowbalisation, when integration stagnates or declines. The golden age of globalisation created huge benefits but also costs and a political backlash. The new pattern of commerce that replaces it will be no less fraught with opportunity and danger. ■





Battling superbugs

First, wash your hands

AMSTERDAM

Why Dutch hospitals are so good at beating antibiotic-resistant pathogens—and much of southern Europe is so bad

THE SEVENTH floor of Vrije University Medical Centre (VUMC), a 700-bed hospital in Amsterdam, houses what staff call the “Ebola room”. To enter, you have to wait in a pressurised antechamber until a monitor on the wall turns green. The difference in air pressure keeps germs from escaping. Nurses and doctors who check on a patient in the room must wear surgical gowns and respiratory masks. As many as 60 sets a day are used in looking after someone quarantined here, says Femke Overkamp, a nurse.

The hospital has yet to see its first Ebola case. Isolation rooms like this one, sprinkled through its wards, have long been used for the kinds of patients who in other European countries are often in open-plan wards: those who harbour superbugs like MRSA (short for methicillin-resistant *Staphylococcus aureus*), a bacterium resistant to several widely used antibiotics. Here, as in other Dutch hospitals, some patients are even quarantined pre-emptively until tests for such bacteria come back negative. Suspects include workers on animal farms and those who have recently stayed in a hospital abroad. When an unexpected MRSA case is found on a ward, everyone who has been near that patient, including health workers, is tested.

This “search and destroy” approach to superbugs is a Dutch speciality, though variations are also used in the Nordic countries. It helps explain why the Netherlands has the second-lowest mortality from infections resistant to antibiotics in the EU, after Estonia (see chart). As Rosa van Mansfeld, who oversees infection prevention at VUMC, points out, when MRSA outbreaks sweep through German hospitals, they stop at the Dutch border. That is no small

Time for manipulative

Deaths per 100,000 people caused by antibiotic-resistant bacteria, 2015



Source: Cassini et al. *The Lancet*, January 2019

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feat. In 2016 about 30,000 patients crossed that border to get health care.

The rest of Europe is looking to the Netherlands as superbugs scarier than MRSA, once rare, are spreading fast. They include CRE (for carbapenem-resistant *Enterobacteriaceae*), gut bacteria resistant to the last-resort antibiotics that are deployed when all else has failed. CRE blood infections are deadly in about 50% of cases, compared with 10-30% for MRSA. In Europe, the prevalence of superbugs is particularly high in Greece, Italy and Romania, but international travel has put other countries on notice. Even in the Netherlands, which has used antibiotics prudently for decades, the prevalence of some superbugs in the general population has almost doubled in the past five years.

For preventing deaths, hospitals are the front line. People can harbour superbugs on the skin, around the nostrils or in the gut, where they are usually harmless. But if they slip into a wound or the bloodstream they become dangerous. In Europe, 73% of deaths caused by superbugs are from infections that occur in medical settings.

Many European hospitals cannot replicate the Dutch model wholesale because they have few single-bed rooms or none at all. Choosing which of its features to prioritise is tricky. The evidence for the effectiveness of any one tactic, such as pre-emptive isolation or testing all patients for superbugs, is thin. National and EU-wide guidelines instead tend to rely heavily on experts' beliefs that a given measure matters. Dr van Mansfeld likens the measures at her hospital to slices of Swiss cheese stacked together: each has holes through which

▶ something can slip, but the chances that it will get all the way through are slim. She admits that, unlike cash-strapped hospitals in countries like Greece, hers has the luxury of being able to afford to do everything thought to be effective.

No money is spared in the fight against germs. The corridors are lined with beds wrapped as tightly as sandwiches in clear plastic foil. All have been through the room-size cleaning machine that whirrs in the hospital's sprawling basement ("our dishwasher for beds", says Dr van Mansfeld). A designated elevator brings down used beds; another is reserved for clean ones going up to the wards. Before shifts, staff pick up fresh uniforms from stations that look like vending machines.

Such extras are a dream for most hospitals, even in richer countries like Britain. But any hospital manager awed by such infection control must reserve envy for something else that this hospital is zealous about: the basics. "In the end, it is all about hand hygiene," says Dominique Monnet from the European Centre for Disease Prevention and Control (ECDC), the EU's public-health agency. Though superbugs can lurk on clothes, sinks, toilets and indeed almost any surface in a hospital, the most common way they get transmitted to patients is by the hands of health workers.

A survey in 2011-12 found that the amount of sanitising hand-rub used per patient per day in Bulgarian, Italian and Romanian hospitals was less than a fifth of that in Norway, Denmark or Sweden. After a tour of several Italian hospitals in 2017 an ECDC team concluded that "most personnel seemed unaware of basic hand-hygiene principles". It also found that alcohol hand-rub was often placed where it was "unrealistic" to expect its routine use.

In countries where basic hospital hygiene is neglected, the reason is not lack of knowledge, says Michael Borg of the Mater Dei Hospital in Malta, a consultant to the ECDC. "It is because infection prevention is not a priority," he says—so nobody is held accountable for it. In Romania, where the health minister recently shut a maternity hospital in the capital for disinfection after 39 babies became infected with MRSA, people have come to see hospital infections as inevitable, says Stefan Voinea of the Romanian Health Observatory, a think-tank.

Britain's experience shows how quickly things can change when the spotlight zooms in on hospital hygiene. Investigations of superbug outbreaks in British hospitals in 2005-06 found filthy wards. Fewer than a third of doctors washed their hands between routine patient contacts (though they thought they were much better than that). Under pressure, the British government made infection-prevention a legal requirement for hospitals and results from audits on the matter became public. From

2003 to 2012 serious MRSA infections plummeted by nearly 90%.

In southern Europe, policing hand-hygiene compliance is the best way to boost it, says Mr Borg. For northern Europe, he believes that convincing health workers of its merits works better. At VUMC in Amsterdam a "link nurse" from each ward is trained to proselytise about infection-prevention standards. Nurses like Ms Overkamp, the link nurse for the trauma unit, are also better than higher-ups at spotting barriers to compliance—and the solutions. By one estimate, some nurses must clean their hands about 100 times per shift. "On a busy day, at the end, the skin on my hands feels like it will fall off," says Ms Overkamp. A new hand-rub, which nurses requested as a less messy option, turned out to be more skin-friendly too. To make the message land, link nurses resort to creativity. A game with glow-in-the-dark powder that nurses smeared on their gloved hands, for example, showed how easily germs spread from hands that are not cleaned after removing the gloves. (It ended up "everywhere", including nurses' faces, says Ms Overkamp.)

In November the OECD, a think-tank, published a comparison of various strategies to reduce the toll from superbugs. It ranked improved hand hygiene in health care as the best approach to reduce deaths and hospital stays. Achieving compliance at 70% of health-care facilities is estimated to cost an OECD country between \$0.90 and \$2.50 per head of population per year. The money that would be saved from having fewer hospitalisations as a result exceeds these costs. There are few deals as good as this to be had in health care. ■

Germany's economy

Calling time

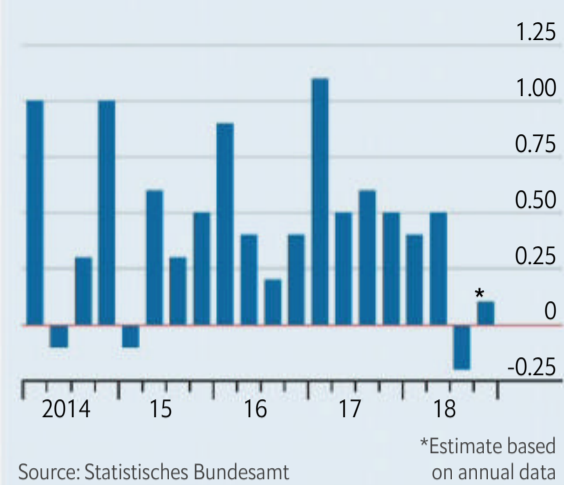
BERLIN

German manufacturers are unsettled by geopolitical tensions

FOR MOST of the past decade Germany has been a shining exception to Europe's economic weakness. But a series of recent figures indicate the mighty Teutons might be in serious trouble. After the economy contracted by 0.2% in the third quarter of last year (see chart), industrial production declined by 1.9% month-on-month in November, much worse than the expected growth of 0.3%, prompting fears that the country was about to enter a technical recession. The federal statistics office said last week that German GDP grew by only 1.5% in 2018, compared with 2.2% in 2017, and stated that economic growth "has lost

Dodging the bullet

Germany, GDP, % change on previous quarter



momentum". Business confidence is flagging. And on January 21st the IMF revised its forecast for German growth to just 1.3% this year, down by 0.6 points from its prediction in October, the biggest downward revision of any major economy. The fund cited weak consumer demand at home and abroad, and the introduction of stricter fuel-emission standards for carmakers that temporarily slowed production.

The weakness of Europe's economic giant has many outside Germany worried. But economists and entrepreneurs inside the country are reacting stoically. "The underlying fundamentals are still rock solid," says Holger Schmieding, chief economist at Berenberg, Germany's oldest private bank. Germany has excellent skilled workers, top-notch engineers, hardly any unemployment, rising wages and stable politics. Alain Durre of Goldman Sachs insists that "concerns about a recession are overdone" because much of the weak performance in the third quarter of last year can be explained by one-off events such as the low water levels of the Rhine, which prevented bigger boats from navigating the river that runs through Germany's industrial heartland, cutting off factories from raw materials and slowing down the distribution of goods.

This sentiment is echoed by some manufacturers. Werner Utz, chairman of Uzin Utz, a maker of flooring products in Ulm, says he remains optimistic. The order books of his family company, which exports 60% of its turnover, mainly to other European countries, are full for this year and next year. Karl Haeusgen, the boss of Hawe Hydraulik, a maker of hydraulic pumps, which exports 70% of its turnover, is also upbeat about prospects for the coming year even though Hawe's main export markets are China and America. As a supplier of builders, Hawe is profiting handsomely from China's Belt and Road Initiative, which involves China underwriting billions of dollars' worth of infrastructure linking itself to the rest of the world.

Exports are equivalent to almost half of ▶▶

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German trains

Dud on the tracks

The travails of Germany's rail passengers

GERMAN COMEDY fans howled when a character in “The Big Bang Theory”, a nerdy sitcom, likened the regularity of his bowel movements to a “German train schedule”. Scatology will always be welcome in Germany. But it was the absurdity of the comparison that stood out. Last year one-quarter of Deutsche Bahn's long-distance services were late. Commuters are resigned to delays, missed connections and overcrowded carriages. Surprisingly to many, among Europeans only Romanian, Bulgarian and Italian passengers are unhappier with their trains. “It's very frustrating,” says Luise Maudanz, a project manager. After regular cancellations on the Berlin-Munich line last year, she started flying instead.

Having been hauled over the coals by ministers, Deutsche Bahn (DB), Europe's largest train operator, has presented a five-point plan to improve its performance, including more money and a hiring spree. But progress will be slow, at best. Germany's low-investment culture has left its infrastructure dilapidated and outdated. The rail network has not kept pace with the long-term population shift to cities or the increase in freight traffic from ports. Disposal of some foreign interests could help fund the business at home; DB's 700 subsidiaries operate in over 130 countries. But the estimated €4bn (\$4.5bn) that the sale of Arriva, a British transport firm, would raise is a fraction of the investment needed. Passenger numbers have doubled since 1994, when DB was formed. The government wants them to do so again by 2030.

Germany's government, which owns DB, has not helped. A pension reform in 2014 caused a wave of early retirement

that left DB scrambling for staff in a tight labour market. Lower taxes and fees on other forms of transport have tilted the field against rail. It is too easy to blame Germany's crafty car lobbyists, says Christian Böttger at Berlin's University of Applied Sciences. Just 7% of Germans make a long-distance trip once a month; one-third never use public transport at all. Politicians react accordingly.

Some urge a sense of proportion. In 2017 a survey by BCG, a consultancy, placed Germany's rail service in the first of three European tiers. Train travel remains affordable, regional services are efficient, and this year passengers should be mollified by new rolling stock and renovated stations. Still, even DB's management admits punctuality will barely improve in the years ahead.



► Germany's economic output, which means that the country is much more dependent than other big economies on trade. (In France and Italy, exports are equivalent to 31% of GDP.) According to Ralph Wiechers of VDMA, the trade body representing machine manufacturers, its members are deeply unsettled by the risk of an escalating trade war between America and China (Germany's top and third export markets respectively). They also fear Brexit (Britain is Germany's fourth-biggest export market), the restless mood in France and the unpredictable populist government in Italy (Germany's second- and sixth-largest export markets).

Trade tends to dry up in such uncertain

times, warns Domink Lucius, chief financial officer of Fr. Meyer's Sohn, a sea-freight forwarding company. With the Chinese economy last year growing at its weakest pace in a decade, Chinese imports from Germany dwindled by 9% quarter-on-quarter and by 24% month-on-month in December, according to Bank of America Merrill Lynch. As a result of this decline, Fr. Meyer's Sohn is expecting no growth in its business this year, and is also considering selling its British business. Germany's small and medium-sized companies, the *Mittelstand*, are the backbone of the economy. But, as the latest numbers make all too clear, their fate rises and falls with the state of the global economy. ■

Trying war crimes

Residual injustices

THE HAGUE

Are international tribunals running out of steam?

MANY VICTIMS of war crimes dream of seeing their oppressors tried by an international court. Seeing them tried twice on the same charges, however, suggests that the court may not be running smoothly. On January 28th in The Hague, hearings will resume in the second trial of Jovica Stanisic and Franko Simatovic, two former officers of the Serbian secret police accused of masterminding ethnic cleansing in Bosnia and Croatia in the 1990s. They were acquitted in 2013. But an appeals court ruled that judges had not properly applied the doctrine of “joint criminal enterprises”, which holds individual conspirators responsible for the crimes committed by their organisations, and ordered them to be tried again.

The retrial is occurring at a time when international criminal justice has lost some of the momentum it once had. The International Criminal Tribunal for the Former Yugoslavia (ICTY), which heard the case the first time round, was chartered by the United Nations in the 1990s, followed by similar tribunals for the conflicts in Rwanda and Sierra Leone. These courts laid new groundwork for prosecuting crimes against humanity, indicting hundreds of people and convicting more than 100.

But their mandates had all expired by 2017. To finish off remaining trials such as that of Messrs Stanisic and Simatovic, the UN chartered a follow-up court, the discouragingly named Residual Mechanism for Criminal Tribunals. Its business could drag on well into the next decade.

Critics charge that other international courts, too, have begun to seem like residual mechanisms. The International Criminal Court (ICC) was established in 2002 as a permanent tribunal that could be granted jurisdiction for conflicts anywhere in the world. Yet it has so far convicted fewer than ten suspects, all of them African. It has had to drop prosecutions of senior leaders in Kenya. On January 15th the court acquitted Laurent Gbagbo, a former president of Ivory Coast, on charges of fomenting violence to steal an election in 2010. It said the prosecution lacked sufficient evidence.

One theory for the lack of convictions is that the ICC bit off too much, too soon. “Expectations need to be reduced,” says Goran Sluiter, a professor of international criminal law at Amsterdam University. Early in its history, the court issued arrest warrants when it had enough evidence to indict, but ►►

▶ not to convict, hoping to gather the rest later. That may have contributed to the acquittals of Mr Gbagbo and of Jean-Pierre Bemba, a Congolese warlord. A problem for such tribunals is the difficulty of proving criminal responsibility for generals and political leaders who gave vague or verbal orders which they now deny.

The ICC is broadening out beyond Africa, investigating possible crimes against humanity in countries including Afghanistan, Colombia, Georgia, Myanmar (via Bangladesh), Palestine, Ukraine and Venezuela. But America, which is not a party to the court, opposes giving it a role in Afghanistan. Russia will not co-operate with its investigations in Georgia or Ukraine.

Even the Netherlands, proud as it is of hosting the court, has chosen not to use it in the case of Malaysian Airlines flight MH17, the airliner shot down by a Russian missile in 2014 with 193 Dutch citizens on board. The Dutch plan to prosecute any cases against Russians in their own courts, which, unlike the ICC, can try suspects *in*

absentia—an advantage, since Russia is unlikely to allow extradition. Yet it will take years, at best, to collect enough evidence to charge individuals. In the meantime, the Dutch may bring a case against the Russian state for failing to protect civilians, possibly at the European Court of Human Rights.

Venial governments are bound to reject the authority of international courts. Yet the demand for them has never been stronger, argues Elizabeth Evenson of Human Rights Watch. The ICC's acquittals show it is not a Western kangaroo court, and it helps set standards for other bodies. Russia vetoed a push in the UN Security Council to give the ICC a role in Syria, but agreed to an international fact-finding mission. A new tribunal on the war in Kosovo in 1998-2000 has been launched in The Hague. In Senegal, a so-called hybrid court with an international mandate convicted Hissène Habré, a Chadian tyrant, in 2016. A similar court may be set up for South Sudan. As Ms Evenson says, "The terrain is rough, but the appetite is growing." ■

country's largest bank. The country's name has also cropped up frequently at the trial of Paul Manafort, Donald Trump's former campaign chief, who is charged with fraud.

The reputation of Malta's financial sector—newer than Cyprus's and, for now, too small to trouble America—began to sour in 2017. Daphne Caruana Galizia, an investigative journalist, alleged that Malta-based Pilatus Bank was laundering millions for Azerbaijan's ruling family, while Maltese officials took bribes to turn a blind eye. (They deny this.) Ms Caruana Galizia was killed by a car bomb in October 2017. Her murder shocked the European Commission into action. It told the European Banking Authority (EBA) to look into Malta's supervision of Pilatus Bank a week later.

Regulators are already showing some improvement. The Central Bank of Cyprus (CBC) forbade banks to deal with shell companies in June. Malta has increased the budget of its anti-money-laundering regulator six-fold.

But many are sceptical about both countries' efforts. Panicos Demetriades, the CBC's former head, says industries that have sprung up around the banks, including "politically well-connected" law firms, remain mostly untouched. As for Malta, the commission told its regulators in November to "step up" their implementation of the EBA's suggestions, warning that failure to meet deadlines could lead to hefty fines. Their citizenship-by-investment schemes also attract criticism. They are the lone EU members on a blacklist maintained by the OECD, a group of mostly rich nations, of countries whose "golden passport" schemes make tax evasion easy.

This contrasts with Latvia's contrition after the closure of ABLV. "We realised we had to do much more to clean up our financial sector," says Liga Klavina, an official at the finance ministry. Since February, the proportion of deposits in Latvia belonging to non-residents has plummeted from 40% to 20%. The figure in Malta is 45%. ■

Money-laundering

Treasure islands

The European Union's two smallest economies, Malta and Cyprus, face growing pressure over money-laundering

MARSHALL BILLINGSLEA, the American Treasury official in charge of tackling money-laundering, visited Cyprus in May 2018 with a stern message. His office had recently accused ABLV, Latvia's third-largest bank, of laundering Russian money and starved it of American dollars, forcing it to close. Clean up your banks, Mr Billingslea is said to have told Cypriot officials, or they will be next. Later that summer another Mediterranean island felt similar heat from European officials, who said there had been serious regulatory gaps in Malta's handling of scandal-hit Pilatus Bank.

The European Union has been jolted by money-laundering scandals over the past year. The one uncovered at the Estonian branch of Denmark's Danske Bank is reckoned to be among the largest in history. Pressure has grown on European countries to take action. A lot of it has fallen on Malta and Cyprus, respectively the EU's two smallest economies, which have acquired a reputation for financial sleaze. A European Commission report on the sale of passports, released on January 23rd, warned that the pair's investor citizenship schemes expose the rest of the EU to money-laundering risks. Some complain that the countries have been unfairly singled out because they are small. Both say they

are now cracking down. But many wonder if this is compatible with their continued enthusiasm for offshore banking.

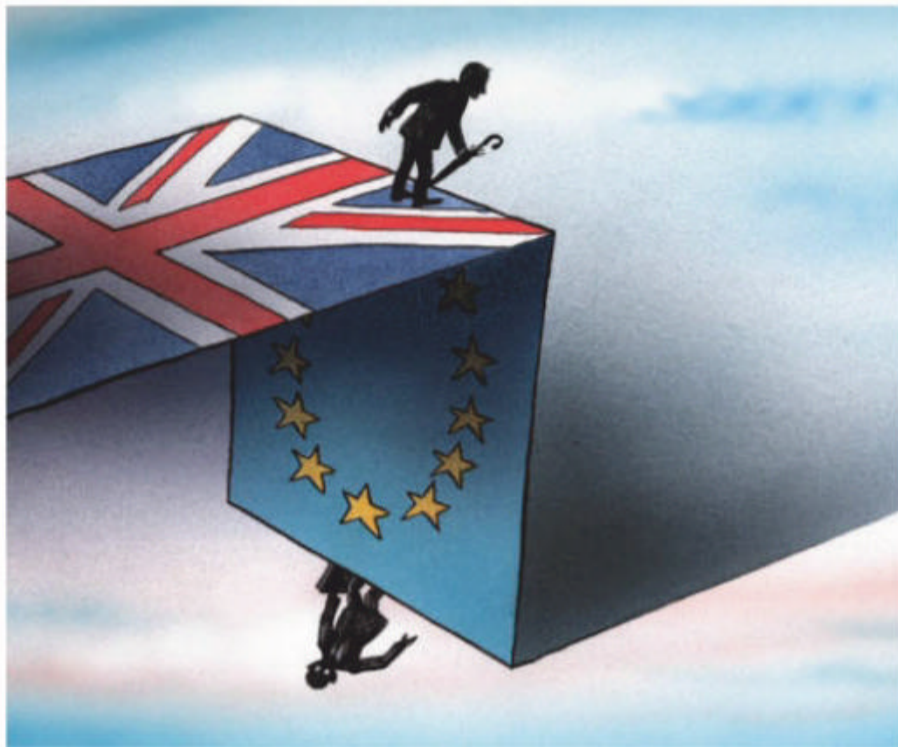
Cyprus has been a haven for Russian money since the 1990s. But American officials are now looking at it with renewed interest, as they seek to curtail Russia's influence in the West. There is much to worry them. Viktor Vekselberg, a Russian oligarch under American sanctions since April, owns 9% of the Bank of Cyprus, the



Remember Daphne

Charlemagne | Fog in the Channel

What Britain and its neighbours misunderstand about each other



TO VISIT BRITAIN after years of living on the European mainland, as Charlemagne did last weekend, is to glimpse the country through continental eyes. It is an exotically distinct place. Its cities are dominated by two-or-three storey buildings rather than five-or-six storey ones. Houses are more common than blocks of flats. Forms of convenience culture—pre-packed meals, card-tapping electronic payments, technological gizmos—are abundant. Institutions like religion, organised labour and even the state itself take a back seat. Public spaces feel shabby by northern European standards, but people are good-humoured about it. The country is strikingly mixed and multi-ethnic. Most notable is its sheer Victorian-ness: the architecture, the urban planning, the transport networks and even the pub names (Coach and Horses, Prince of Wales) speak of a country forged in the 19th century.

At its narrowest, the English Channel is 33km (21 miles) wide. Exchange and movement across this gap have shaped countries on both sides for millennia. Yet Britain remains different. To be an island is to be other—at once prone to insularity and to seeing horizons more clearly. To have been a superpower for a time is an experience that takes centuries to process. To have political and legal institutions distinctive from those of one's neighbours is to find their instincts alien—and to be poorly understood oneself.

Britain's otherness was good for Europe, a welcome speck of liberal grit in the unctuous continental oyster. It made Britain and its partners richer and more influential. But an awkward truth persists: the two sides do not understand each other well. It is a reality with which anti-Brexiteers on both Channel coasts must contend.

Nothing better illustrates it than the Brexit process. In David Cameron's pre-referendum "renegotiation" of Britain's EU membership and Theresa May's Brexit talks, Britain overestimated the political salience of cross-Channel trade to the rest of the EU and wildly underestimated the importance of internal cohesion. Some die-hards still hope that German carmakers will press Angela Merkel into allowing Britain to cherry-pick the benefits of EU membership. They will remain disappointed.

Britons tend to see the EU only at its extremes, in its most pragmatic and most idealistic forms: half trade accelerator and half halfalutin peace project. The truth dwells in the complicated

zone between the two. "European integration is primarily about ensuring collective European survival," argues Alexander Clarkson of King's College London. Although few fear a new major European war, the EU's leaders are driven by the quest to preserve a recognisably European way of life (think modern societies and long holidays) in a multipolar world. It was this argument that Helmut Kohl used to win over sceptical Christian Democrats to the euro.

Likewise, Westminster parliamentarianism and Britain's common-law legal system run on common-sense specificity and abstract principle, not the codified layers between the two that define the mainland. Continental systems rely on binding codes. Politicians can collaborate and do deals, but lawyers refer to first-principles legal scriptures. In London, where rules are mutable, officials wait for Mrs Merkel to signal that she does not really mean it when she says Britain cannot pick and choose the benefits of EU membership. Even Europhiles like Tony Blair insist that the EU would change its freedom-of-movement regime to prevent Britain from leaving. They are wrong. The fear of failed rules is more alive on the history-scarred continent than on a pragmatic island that never knew the jackboot.

Britons, who tend not to speak other languages, understand other Europeans more poorly than the other way around. But even the Anglophone elites of the remaining EU member states struggle to grasp certain things about Britain. It has long been assumed in capitals like Berlin that its vote to leave would somehow be forgotten or fudged: "The political and economic elite in the EU-27 have vastly underestimated the willingness of the UK public and politicians to vote for Brexit in the first place and now opt for a hard Brexit," observes Nicolai von Ondarza of the German Institute for International and Security Affairs.

This illustrates two continental blind spots. Seen from afar and combined with stereotypes about British deference and stoicism among Europeans who spend too long watching "Downton Abbey", Westminster's wood-panelled frippery looks like a guarantor of establishment views. In fact, Britons are capable of and even prone to rebellion and transformation—from the civil war, to abrupt decolonisation, the Thatcher revolution and punk music. A letter on January 18th from German leaders urging Britons to stay was endearing, but also oddly twee. It gushed about the gentle delights of ale and milky tea while paying little heed to the abrasive, diverse, individualistic character of Britain today. The second misunderstanding is related: continentals have long overlooked the adversarial nature of Britain's politics and assumed that its leaders can fudge their way to a compromise on Brexit. According to the *Financial Times*, officials in Brussels were surprised to find that Jeremy Corbyn, the leader of the opposition, did not have Mrs May's mobile number.

Je t'aime... moi non plus

What to do? Europe's leaders should realise that the stuffy yet practical country they thought they knew can sometimes be the opposite: anarchically capable of romantic self-destruction. London must realise that the continentals mean what they say about preserving the EU's coherence and about standing by a member (Ireland) over a third party (Britain) in debates about borders. And those on both sides seeking a second referendum to end Brexit must accept that even a repentant Britain will be a troublesome participant in future moves towards European integration. Brexit is a disaster that should be reversed; yet if it is, that will not settle Britain's relationship with its continent for one second. ■



Theresa May's government

The absent agenda

Brexit is just one problem for a government without the votes or the ideas to rule

THERE ARE few quick wins in politics at the moment, but a plan to crack down on domestic abuse should surely have been one of them. Measures to beef up the country's laws against abusive partners won cross-party support when Theresa May's government proposed them in the summer of 2017. A public consultation ended the following May. But then eight more months went by. The government at last published its draft bill this week, a year and a half after it was first mooted.

As Brexit has dominated, the rest of the government's agenda has withered. Uncontroversial proposals like the domestic-abuse plan have moved slowly. Bigger reforms, to the National Health Service, for instance, have been delayed. Others seem to have been shelved altogether. A promised green paper on how to care for Britain's increasingly numerous oldies, originally due last autumn, is still absent. The forthcoming spending review, which allocates cash to departments, has no date. And much of the legislation that has made it through has been fairly piddling. One law

introduced a price cap on energy bills, a policy pinched from Labour. Another imposed stiffer punishments on people who shine lasers at aeroplanes.

It is a far cry from the programme that Mrs May laid out on becoming prime minister in 2016, when she promised to deal with the "burning injustices" of British society. Instead, she has spent most of her time putting out Brexit-related fires. Although the government has introduced 46 bills since 2017—about par for an adminis-

tration—only 28 have been unrelated to Brexit. Subtracting bills on Northern Ireland (which is without its assembly and thus dependent on Westminster) and those required for the basic functioning of government, only 17 new bits of legislation have been introduced. The government is all but grinding to a halt.

One reason is a lack of capacity. The burden of preparing to leave the EU is badly hindering the civil service, points out Emily Andrews of the Institute for Government, a think-tank. Manpower is being shifted to cope. Bureaucrats from the Department for International Development (who are at least used to dealing with unstable banana republics) are being redeployed to other departments to help with Brexit planning. Even before the referendum, the proportion of big government projects in danger of over-running was rising (see chart on next page). As a result, some policies are being deferred. John Manzoni, the chief executive of the civil service, put this situation in fluent bureaucratese on January 22nd, calling it "the beginning of a process of prioritisation".

Some blame the prime minister for worsening the situation. Other ministers' aides complain of a lack of strategy in Downing Street, which they accuse of being unable to explain its priorities. Mrs May has carried on her habit from the Home Office of relying on inquiries and consultations. What once seemed like conscientious lawmaking increasingly looks ▶▶

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▶ like a figleaf for indecision. Last year a widely briefed plan to cut university tuition fees resulted instead in yet another review (since delayed).

One senior Conservative MP describes Mrs May's method of government as "valiant pugilism". Rapid decision-taking and parliamentary dealmaking are things to which she is particularly ill-suited. "It's a fantastic skill, her ability to do nothing," says one of her former cabinet ministers, almost admiringly.

Mrs May's allies say the government is simply constipated. Civil servants were optimistically told to gear up to unleash a host of policies in anticipation of a successful vote for the government's Brexit deal in December. "Departments were told to hold on to stuff," says one adviser. "They are still holding it." Brexit blocks up the "grid", the Downing Street media planner that dictates when policies are announced. A host of reforms are ready to go, once the legislative laxative of passing a Brexit deal has taken effect, argue some aides.

They may be waiting a long time. A basic problem lies at the heart of the government's agenda: it does not have the votes. Since 2017 the Tories have lacked a majority in the House of Commons. This makes Brexit, described by civil servants as the government's trickiest peacetime task, even harder. "We would not be having the issue with Brexit if we had [an] 80-seat majority," says one government adviser.

This has knock-on effects. Ministers are confined to the parliamentary estate, lest they miss a crucial vote, and so spend less time on the day job. Political instability saps ministerial ambition: why bother with tricky negotiations with Downing Street or the Treasury if the current occupants might not even be there in six months' time? Even innocuous reforms run the risk of getting bogged down in proxy battles in the Brexit wars.

Yet Mrs May's programme suffers from a more profound flaw. "There is a belief [in

Downing Street] that there ought to be a bold agenda," says one ministerial aide. "I worry that they don't know what it is." After more than two years in power, Mrs May and her team have failed to spell out a plan to fix those burning injustices.

The prime minister's allies point out that she has found more money for the NHS, overseen a plan for its overhaul (albeit one drawn up by the NHS itself rather than the government) and enacted some small but successful measures, such as mandatory reporting of the gender pay gap for big companies. But on the big problems facing Britain—weak productivity growth, inadequate housing, crumbling social care and a grim long-term fiscal outlook, to name a few—Mrs May seems to be out of ideas.

Her domestic agenda has undoubtedly been hampered by Brexit, an overworked civil service and miserable parliamentary arithmetic. But the bigger problem is that such an agenda barely exists at all. ■

Brexit and Parliament

Unintended consequences

How attempts to stop no deal could help Theresa May get her deal passed

AFTER SEEING her Brexit agreement crushed in the Commons by 230 votes, Theresa May was forced on January 21st to report to MPs on what she would do next. Characteristically, she refused to change. After a token effort to consult opposition MPs, she reverted to her previous plan: seek assurances from the European Union about the temporary nature of the Irish "backstop", in hopes of winning over Brexit hardliners. With Brussels still rejecting any legally binding end-point to the backstop, such hopes seem forlorn.

Most Brexiters are unfazed. They argue that, if there is no majority for any Brexit deal, Britain will leave without one on March 29th, the deadline fixed under Article 50 of the EU treaty. Yet many MPs and even some ministers are determined to stop such a high-risk outcome. Amendments have been proposed to Mrs May's Brexit motion that will be put to the vote on January 29th. Some are declaratory only. But two are more serious because they change parliamentary procedure—and they seem likely to pass.

The first, from Yvette Cooper, a Labour MP, and Nick Boles, a Tory, would suspend the rules giving precedence to government business for one day, February 5th. It would be used to rush through a bill requiring the government, if no Brexit deal were passed by February 26th, to ask the EU to extend

the Article 50 deadline. A second amendment from Dominic Grieve, another Tory, would suspend the rules for every sitting Tuesday until March 26th. On those days MPs would instead vote on other Brexit options, ranging from a permanent customs union to a second referendum.

Mrs May is against such plans because she wants to keep the no-deal option. But with the Labour opposition suggesting it will back at least the first proposal, it seems likely to win the day. Hardliners are denouncing what they call a constitutional outrage by which Remainers seek to hijack and even stop the Brexit backed by voters in 2016. Jacob Rees-Mogg, a leading Brexiteer, has even suggested that the government should prorogue (ie, suspend) Parliament to stop the Cooper/Boles bill becoming law.

There are several ironies in this. A key argument made by Leavers was that sovereignty must return from Brussels to Westminster. Yet now that MPs are duly asserting themselves, Leavers attack them for subverting the sovereign will of the people.

Another irony arises from claims that MPs are not delivering Brexit because they no longer represent their voters. It is true that a large majority of MPs, like the prime minister and most of the cabinet, were Remainers. Yet as a study on Brexit and public opinion published this week by the UK in a Changing Europe academic network shows, voters are as divided as MPs on what sort of Brexit they want. In failing to find a majority for anything, the Commons exactly reflects those divisions. Moreover, the study suggests that, were the 2016 referendum rerun now, Remain would win, albeit narrowly.

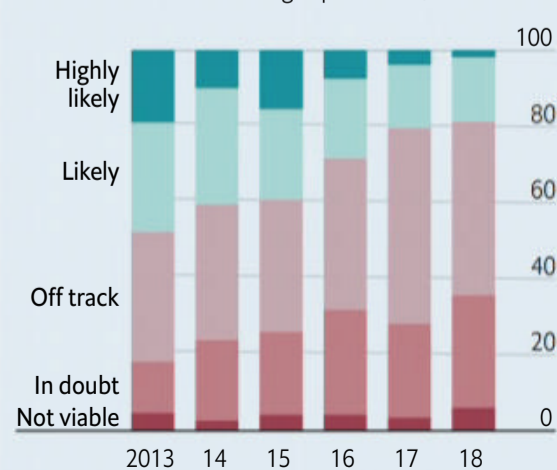
What will happen if backbenchers succeed in legislating a call for an Article 50 extension? The first point to keep in mind is that other EU governments might not agree. Extension (as opposed to revocation of the original Article 50 letter) requires unanimous approval, and many in Brussels are dubious about giving Britain more time merely to argue over what it wants. Yet the EU is also anxious to avoid a no-deal Brexit, which would damage the continent as well as Britain. So it may well, in the end, prove ready to accept an extension.

This could produce another unexpected outcome. Brexit hardliners could find that, thanks to their annoying colleagues, the option of a no-deal Brexit was, in effect, blocked. They would then discover that Mrs May was right to say that one likely alternative to her deal was—horrors!—no Brexit at all. Already, Mr Rees-Mogg and others are hinting that, if she can only find face-saving tweaks to her deal, they may back it after all. It would be the ultimate irony if MPs who hoped to use legislative tricks to soften Brexit end up creating the best chance Mrs May has of getting her Brexit deal through. ■

Project fear

Britain, major government projects

Official estimates of meeting expectations, % of total



Sources: Institute for Government; Infrastructure and Projects Authority

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Bagehot | The troubles of Lazarus

Michael Gove is the Conservatives' most interesting thinker



IN AUGUST 2016, when this writer took over the Bagehot column, Michael Gove was roadkill. Theresa May had sacked him from her first cabinet. He had broken with his two political patrons—with David Cameron because he supported Leave in the referendum, and with Boris Johnson because, while acting as Mr Johnson's campaign manager for the Tory leadership, Mr Gove suddenly announced that his boss wasn't up to the job, and stood himself instead. A publisher cancelled a biography it had commissioned.

Today Mr Gove is cock of the walk: the most successful secretary of state for the environment in memory; a star turn at the despatch box; and a pivotal figure in the Brexit war that will determine the country's future. In his earlier incarnations in politics, Mr Gove always played Jeeves to an Etonian Wooster. Now the Woosters have imploded and Mr Gove is his own man. As such he is the most interesting person in the Tory party.

On January 16th Mr Gove gave a parliamentary masterclass in defending his government against Jeremy Corbyn's motion of no confidence. With the government's morale shattered by a defeat of 230 votes, Mr Gove preached the old religion of how a terrorist-supporting, Communist-loving beardie from Islington North couldn't be put in charge of the country. The Tories whooped. On January 22nd he displayed a different set of skills in his testimony before a House of Lords committee on rural affairs, making light of the tension between raising productivity and preserving "the ties that bind", and quoting Sir Roger Scruton, a philosopher, on the importance of beauty and Dieter Helm, an economist, on natural capital. He was careful to praise both environmentalists and his own Department for the Environment, Food and Rural Affairs: "If it's not all power to the Soviets, it's all power to DEFRA."

All power to DEFRA is not a phrase uttered by any of his predecessors. Most regarded the office as a way-station on the road to higher things, or a rest home before retirement. Under Mr Gove, DEFRA is the only government department that is doing anything interesting. He is masterminding four big bills that are designed to prepare the country for its future outside the EU's common agricultural policy and common fisheries policy. He has conducted high-profile campaigns against plastics and wood-burning stoves.

Yet Mr Gove is far from being a smooth politician in the manner

of his old friends David Cameron and George Osborne. Beneath the accomplished surface is a man in turmoil. This is partly congenital, for Mr Gove is a bundle of contradictions. He is an outsider who craves to be an insider: he grew up in Aberdeen as the adopted son of a fishmonger but spent his time in Oxford hanging around with public-school Tories like Mr Johnson. He is a populist who loves high culture: during the referendum campaign he railed against the liberal elite, but later slipped off to watch Wagner in Bayreuth with Mr Osborne. He is a moderniser with a weakness for unpopular causes such as Ulster unionism (he was a vocal critic of the Good Friday Agreement) and a convinced Tory with a streak of wild radicalism about him. It was these twin tastes for unpopular causes and wild radicalism that turned him into a Brexiteer.

Mr Gove did as much as anybody to visit the current nightmare on the country. He was the first of Mr Cameron's inner circle to declare his support for Brexit, which deeply wounded the then prime minister. He did more than anyone to persuade Mr Johnson to jump aboard the Brexit bus. Dominic Cummings, the campaign genius behind Vote Leave's victory, was a Gove protégé. At the same time, Mr Gove is worried by what he has wrought. He has broken with the hard-core Brexiteers such as Sir John Redwood and Owen Paterson who think, against all evidence, that Britain will be fine if it leaves the EU with no deal. On the other hand, he is unwilling to join his close friend Nick Boles in advocating membership of the European Economic Area. He is instead sticking with the prime minister's middle-of-the-road deal, despite the fact that it was trashed in Parliament—and despite the fact that, as by far the most talented Brexiteer in the cabinet, he has it in his power to kill it off and force the prime minister to change her direction.

Why has one of the architects of Brexit decided to stick with a policy that, by common consent, is an exercise in damage limitation? There are all sorts of theories circulating among his friends in the Westminster village, including that he regrets the whole project and thinks that the only thing left is, indeed, damage limitation. But three explanations are more plausible. First is that he is terrified of a no-deal Brexit. He has been inundated with briefing papers that spell out in detail what a break in supply chains would mean for food supplies and what the imposition of tariffs of over 40% would mean for the lamb industry. He thinks that the Conservatives could be out of power for a generation if a no-deal exit occurred on their watch. The second is that he is content to bide his time. He thinks that the most important thing to do is get Brexit over the line, preferably on March 29th, after which it can grow organically. Third is a political consideration. Having helped bring down Mr Cameron and Mr Johnson, Mr Gove doesn't have a third assassination in him.

From maverick to moderate

A fourth possibility is that the radical at the heart of British politics may be belatedly learning the essential Conservative value of pragmatism. He recently compared Tories waiting for the perfect Brexit to "mid-50s swingers" waiting for Scarlett Johansson to turn up to one of their parties. It is an apt metaphor. The past few agonising months have not only shown that Ms Johansson is not going to show up. They have also demonstrated that Sir John Major, perhaps the most underrated politician in recent decades, had negotiated a cunning deal with the EU that kept Britain out of the euro but gave it access to all the benefits of the union. Brilliant Tory radicals like Mr Gove have their place—but only if they are kept under strict control by wise Tory pragmatists like Sir John. ■



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Binyamin Netanyahu and the press

“My own media”

JERUSALEM

The prime minister's attempts to control the press may result in his downfall

IN OCTOBER 2015 a journalist called Amir Tibon was asked by his editors at Walla!, a popular Israeli news website, to analyse Binyamin Netanyahu's handling of a wave of shooting and stabbing attacks by Palestinians. The resulting piece was balanced, but included some mild criticism of the prime minister. According to Mr Tibon, the next morning he received a phone call from his editor-in-chief, who said, “We can't publish this. You know what the circumstances are right now.”

Other reporters at Walla! now tell similar stories of being censored when their reports were critical of Mr Netanyahu. The police have offered a possible explanation. In December they recommended that Mr Netanyahu and seven other suspects, including the former chairman of Bezeq, a telecommunications company, be indicted for bribery, fraud and breach of trust. In return for positive coverage on Walla!, Mr Netanyahu is alleged to have intervened in regulatory matters to benefit Bezeq, which owns the website.

Reporters in Israel tend to be secular liberals, but their exposés have brought down

politicians of all stripes. Mr Netanyahu, who leads a coalition of nationalist and religious parties, has long believed the press is bent on tarnishing his image, thwarting his plans and removing him from power. He thus set about trying to change the media landscape. He has pushed for laws and rules that would undercut his critics and boost his allies; encouraged his supporters to buy media outlets; and bullied reporters. He may also have broken the law.

Media magnet

The investigation into Mr Netanyahu's dealings with Bezeq, known as Case 4000, is one of three that threaten to bring him down. The police have also recommended indicting Mr Netanyahu in Case 2000, in which he is accused of negotiating illicit deals with a newspaper publisher for more favourable coverage. The third, Case 1000, involves Mr Netanyahu's acceptance of gifts, allegedly worth over \$200,000, from Israeli tycoons (indictments were also recommended). Mr Netanyahu denies wrongdoing in all three. The attorney-general will decide soon whether to proceed with them.

Early in his career, when he was Israel's dashing young ambassador to the United Nations, Mr Netanyahu benefited from glowing media coverage. Gushing profiles described how the eloquent diplomat was making Israel's case on the global stage. Reporters, presciently, cast him as a future prime minister. The exposure helped him gain the top spot on the Likud party's list of candidates when he first ran for the Knesset in 1988.

But his relations with the press deteriorated. When the Labour government under Yitzhak Rabin signed the Oslo accords with the Palestinians in 1993, most journalists supported it. Mr Netanyahu, who had become leader of Likud, was the treaty's chief critic. When, two years later, a Jewish zealot murdered Mr Rabin, much of the press accused Mr Netanyahu of whipping up his supporters against the prime minister.

By the time Likud won at the polls in 1996, Mr Netanyahu's supporters had begun referring to the “hostile press”. When he lost power in 1999, he blamed reporters for downplaying his accomplishments. Years later, while still in the political wilderness, he told his wealthy patrons, “I need my own media,” and urged them to buy shares in news organisations. Sheldon Adelson, an American casino mogul, went a step further, founding his own freesheet, called *Yisrael Hayom*, which quickly became Israel's most widely read newspaper. It is so pro-Netanyahu that it is often called “Bibiton”—a portmanteau of Mr Netanyahu's nickname, “Bibi”, and the Hebrew ▶

word for newspaper, *iton*. Avigdor Lieberman, an ultranationalist former defence minister, compared it to *Pravda*.

The popularity of *Yisrael Hayom*, which operates at a hefty loss, came at the expense of Israel's older newspapers, many of which saw their revenues from sales and advertising drop. This, according to the police, led to negotiations between Mr Netanyahu and Arnon Mozes, the publisher of *Yedioth Ahronoth*, a large newspaper that was critical of the prime minister. The two men were recorded discussing a deal that would have the paper ease up on Mr Netanyahu. "Take down the hostility towards me from 9.5 to 7.5," he told Mr Mozes. In return, Mr Netanyahu would allow legislation that limited the circulation of popular free-sheets, such as *Yisrael Hayom*. Those discussions form the basis of Case 2000.

When the deal fell through, Mr Netanyahu reverted to opposing the *Yisrael Hayom* bill, going so far as to dissolve his government in order to block it.

Following his fourth election victory in 2015, Mr Netanyahu appointed himself communications minister and allegedly intervened on Bezeq's behalf. He also changed the regulations on private television broadcasters in ways that drove Channel 10, which was critical of the prime minister, to the brink of bankruptcy. On January 14th the channel merged with Reshet, another private channel. Its main shareholder is now Len Blavatnik, a Soviet-born British-American businessman who has been questioned by the police over his ties to Mr Netanyahu.

In early 2017, under pressure from the opposition and Israel's high court, Mr Netanyahu stepped down as communications minister. But he continued to influence the media. Later in the year he sought preemptively to muzzle a new public broadcaster by denying it permission to create a news department. Again he threatened to dissolve the government if he did not get his way (he later backed down). Meanwhile, a private station called Channel 20, originally licensed to broadcast religious content, received the government's blessing to run news programmes. These often cast the prime minister in a positive light. Mr Netanyahu favours it for interviews.

With *Yisrael Hayom* and Channel 20, Mr Netanyahu has a growing echo-chamber. But claims that Israel is going the way of Hungary, where Viktor Orban, the prime minister, has throttled the press, are overstated. Channel 20, with dismal ratings, is not nearly as influential as Fox News is in America. Most Israeli journalists remain critical of Mr Netanyahu—and have the backing of their editors and publishers.

For Mr Netanyahu, that might not be a bad thing. He seems to enjoy playing the victim and has become an astute user of social media. As Israel gears up for an elec-

tion on April 9th, billboards recently appeared featuring the pictures of four journalists who have published damaging revelations about the prime minister. A slogan on top reads, "They won't decide" (a Facebook page with the same name was opened). After some confusion over who put them up, Likud took responsibility, adding a note to some of the billboards: "Despite them, Netanyahu!" ■

Egypt's new capital

An elephant in the desert

CAIRO

As Egypt prepares to open a grand new capital, one thing is missing: people

CAIRO IS KNOWN as the city of a thousand minarets. Its replacement started with just four, the spindly white towers of the Fattah al-Alem mosque (pictured), a showpiece project in the new purpose-built capital rising in the desert 49km east of Cairo. Abdel-Fattah al-Sisi, the president, unveiled the mosque this month. But no one lives in the city yet. Students from Cairo University, vetted by the government, were bused in for the first Friday prayers on January 18th. Like the mosque, Egypt's still-nameless new capital is grandiose, empty and tightly controlled.

Mr Sisi is not the first Egyptian ruler to move the capital. The pharaohs had Thebes and Memphis, to name just two. Alexandria was the heart of Greco-Roman Egypt. The modern capital dates back to 969AD, when Fatimid conquerors commissioned a walled city to mark their triumph. A millennium later the "city victorious", as it is known, has become a city tumultuous: a



From city victorious to city vacant

congested sprawl of 23m people. In his later years Hosni Mubarak, the dictator deposed in 2011, preferred to govern from the idyllic Sinai resort of Sharm el-Sheikh.

Five years after he took power in a coup, Mr Sisi is preparing his own move. When (and if) it is finished the new city will stretch over 700 square kilometres, about the size of Singapore. Instead of Cairo's teeming slums and cramped alleys it features wide boulevards and neat rows of high-rises. Alongside the mosque is the region's largest cathedral. A state-run Chinese firm is building a business district with Africa's tallest skyscraper. The city is meant to ease the pressure on Cairo—and, some say, boost Mr Sisi's ego.

No one knows what all of this will cost (the initial estimate was \$45bn) or how Egypt will pay for it. The project has been plagued by financial problems since its start in 2015. Contract talks have stalled with Emaar, a Dubai property giant, and with a second Chinese firm meant to build \$20bn worth of facilities. As ever in Egypt the army stepped into the breach. It owns 51% of the firm overseeing the project, with the rest controlled by the housing ministry.

A modest first phase opens this year. Parliament hopes to move as early as this summer. About 50,000 bureaucrats (less than 1% of public-sector workers) will soon follow. But foreign embassies are reluctant to move while the city is still deserted. They also worry that, confined to a city with an army "command centre", they will be cut off from what remains of civil society. Mr Sisi's government warns that it cannot (or will not) secure embassies in Cairo.

The bigger question is whether Egyptians themselves will move. Since the 1970s the government has littered the desert with planned cities meant to ease congestion. One called New Cairo, east of old Cairo, was supposed to attract up to 5m residents. It has less than one-tenth of that. The new cities often lack jobs to draw residents. Many have become havens for rich Egyptians fleeing Cairo's traffic and pollution.

The new capital will have jobs, but few civil servants can afford to live there. On average they earn 1,247 Egyptian pounds (\$70) a week. Last year the housing ministry listed apartment prices in the city at more than 11,000 pounds per square metre. State employees will receive a discount, and plans call for 285,000 low-cost housing units. Neither will provide adequate housing for the 2.1m bureaucrats in Cairo or the other workers needed to run the city.

On January 25th Egyptians mark the anniversary of the revolution that overthrew Mr Mubarak. His longtime foreign minister, Ahmed Aboul Gheit, recalled watching the unrest from his office window. Soon Cairenes will have further to travel if they want to confront the government. That was undoubtedly part of the plan. ■



Repression in Zimbabwe

Blood on their hands

JOHANNESBURG

Zimbabweans are facing the worst state violence in a decade

LAST YEAR Emmerson Mnangagwa strutted around the World Economic Forum (WEF) declaring his country “open for business”. This year Zimbabwe’s president did not even make it to Davos. Instead, on January 21st, having cut short a foreign jaunt that was meant to end at the WEF, he arrived home to a country in chaos.

Since January 12th, when Mr Mnangagwa sparked protests by announcing a 167% rise in the price of petrol, Zimbabwe’s security forces have meted out violence on a scale not seen for a decade. In the days after the price hike soldiers, police and militiamen from Zanu-PF, the ruling party, went house to house across the country beating, shooting or letting slip dogs on residents as young as 11.

Over the past week the violence has become more targeted, but no less brutal. Opposition activists have suffered from a campaign of “systematic torture”, according to the Zimbabwe Human Rights Commission. A doctor from another NGO says that it knows of 12 killings, 78 cases of gunshot wounds and hundreds of assaults, but that these are a “fraction” of the total.

Prisons are bursting. At least 11 opposition MPs have been arrested, as well as the leaders of three of the biggest trade unions. So has Pastor Evan Mawarire, a Christian activist. Hundreds of ordinary folk, including children, are also in jail.

Upon his return Mr Mnangagwa promised an investigation into the violence. “If required, heads will roll,” he wrote on Twitter.

AHMED HUSSEIN-SUALE DIVELA was stuck in traffic in Ghana’s capital, Accra, when two men on a motorbike shot him three times. The investigative journalist died before his friends could get him to hospital. His killing has shaken this vibrant democracy with its boisterous, muckraking media.

Mr Divela had no shortage of enemies. He worked for Tiger Eye Private Investigations, a company that mixes award-winning undercover journalism with corporate sleuthing. Three years ago it exposed corruption in Ghana’s judiciary with hidden-camera footage showing judges taking bribes. A dozen were sacked from the high court.

Last year it blew the whistle on graft at FIFA, football’s global governing body. A documentary showing match-fixing led to the dissolution of Ghana’s football association and the banning or suspension of more than 60 referees and officials. It was this probe that probably led to his death, says Anas Aremeyaw Anas, who founded the company and is Ghana’s most celebrated journalist. Mr Anas, who keeps his identity secret by concealing his face with a veil of beads when appearing in public, has broken stories by disguising himself and pretending to be a janitor in a brothel, a taxi driver and a rock star. But after the football story came out members of his team started getting death threats.

The most explicit of these menaces was made by Kennedy Agyapong, a ruling-party member of parliament who was implicated in the scandal. He threatened to reveal the identity of Mr Anas, saying he should be hanged. Then he

ter. Few believe he cares about the truth. An inquiry last year into the killings of six civilians after elections in July was a whitewash. And he has never explained his own role as Robert Mugabe’s intelligence chief in the massacre of thousands of people in the Matabeleland region in the 1980s.

Zimbabweans are familiar with police violence and intimidation. But many are scratching their heads as to why this time it has been so harsh. One theory is that Constantino Chiwenga, Zimbabwe’s vice-president, saw an opportunity to cause chaos while Mr Mnangagwa was out of the country and make it seem that the president was not up to the job. Mr Chiwenga, a former head of the armed forces, is widely thought to want to be president, and was angry that

appeared on television with a photo of Mr Divela and told his supporters where he lived in Accra. “I’m telling you, beat him...Whatever happens, I’ll pay.”

Mr Agyapong has been questioned by police, but he denies any involvement in the murder. Opposition parties have called for him to be punished for inciting violence. Yet instead of condemning him, the ruling New Patriotic Party says that he should be given police protection. A spokesman for the party told a local radio station that Mr Agyapong could not be blamed for the killing since he had only called for Mr Divela’s beating, not his death.

Mr Anas and Tiger Eye have started an investigation of their own into the murder. “We will not sleep,” says Mr Anas. “We will not surrender.”



Mr Anas mourns his friend

in December Mr Mnangagwa secured the support of Zanu-PF to run again in 2023. He also has financial interests to protect.

A second theory is that, rather than there being a split at the top, Mr Mnangagwa and Mr Chiwenga are engaging in a macabre game of good cop, bad cop. In this version of events the president’s absence is convenient: he can return home, after opponents of his regime have been vanquished, and claim to be cleaning house.

Both theories have their merits. Zanu-PF is fractious and filled with people who thirst after power and loot. If an opportunity arose for Mr Chiwenga to amass more power, logic dictates that he would happily seize it.

But it is also implausible that the presi- ▶▶

Media freedom

Sword 1, Pen 0

DAKAR

The assassination of an investigative journalist shakes Ghana

dent was not party to the decision to send the police and army onto the streets. When he announced the rise in fuel prices he warned protesters that “politically motivated activities will not be tolerated.” Mr Mnangagwa was met off the plane by Mr Chiwenga, his comrade of many decades, whom one of the president’s daughters has described as “a brother to Dad”.

Whatever the truth about the causes of the violence, one thing is certain: ordinary Zimbabweans are suffering. As the economic crisis worsens, the temptation to thump opponents will intensify. On January 23rd soldiers were beating minibus

drivers into lowering fares that had risen because of the higher fuel price.

Western governments have condemned the atrocities of the past fortnight. But their influence is limited. South Africa, home to perhaps millions of Zimbabweans, is more important. Yet Cyril Ramaphosa, the president, is tone-deaf. He told reporters in Davos that Zimbabwe has “embarked on democracy and a path of real recovery”. In this he follows his predecessors, who turned a blind eye to abuses in Zimbabwe and hoped things would improve in time. The protests, fuel queues and collapsing economy suggest a new approach is needed. ■

dered Congo on Mr Kabila’s watch. Optimists hope that he will ditch whatever deal he had with his predecessor and strike out on his own. For a precedent, they point to João Lourenço, who shoved aside his predecessor’s family and allies after taking power in neighbouring Angola in 2017. Mr Tshisekedi’s virtues do not include loyalty; he withdrew from a pact to endorse Mr Fayulu last year only a day after signing up.

Yet Mr Tshisekedi is weak. Few Congolese think him legitimate: leaked electoral commission data suggest that he won less than a fifth of the vote. Because Mr Kabila’s coalition won a big majority in the national assembly (possibly by cheating), Mr Tshisekedi does not have the power to appoint his own cabinet. Nor can he count on the goodwill of Congo’s most important neighbours. Although the leaders of South Africa and Kenya raced to congratulate him, Paul Kagame, Rwanda’s president, has hung back. He and Mr Lourenço were said to be largely responsible for an African Union statement questioning the election and urging a delay in his inauguration.

Neither Mr Kagame nor Mr Lourenço is likely to help Congo’s new president as long as Mr Kabila—whom they detest—retains influence over him. Yet their acquiescence is vital. Rwanda has invaded Congo in the past. Angola sent troops to save both Mr Kabila (from his own mutinous troops in 2006) and his father (from Rwandan invaders in 1998). Probably neither Kabila would have survived as long without Angolan assistance. But a maritime border dispute and an influx of refugees into Angola from a rebellion in Congo’s Kasai region have soured relations. Rwanda or Angola could easily destabilise Congo again if they wished to. Mr Tshisekedi, an inexperienced and unpopular leader in hock to a crooked and dysfunctional old regime, may not be able to stop them. ■

Congo’s new president

The man who won the count

KINSHASA AND NAIROBI

Félix Tshisekedi’s presidency begins inauspiciously. It may not get better

A GAINST ALL the odds, and the laws of arithmetic, Félix Tshisekedi was due to become the Democratic Republic of Congo’s fifth president as *The Economist* went to press. A few weeks ago he was trailing in the polls. Experts predicted that the election in December would either be won by Martin Fayulu, a popular opposition candidate, or rigged in favour of the ruling-party candidate, Emmanuel Ramazani Shadary.

Somehow, Mr Tshisekedi “won”, although data leaked from the electoral commission and a count by 40,000 Catholic volunteers suggest that in fact Mr Fayulu won 60% of the vote. Many suspect a secret deal between the new president and the old one, Joseph Kabila, whose business interests Mr Fayulu had vowed to investigate.

Mr Fayulu filed a petition before the constitutional court, stacked with Mr Kabila’s appointees. He expected it to fail, and it did. He hoped that street protests would keep up the pressure. “The Congolese people will not accept the result, there may be an uprising,” he said. But few turned out at what was supposed to be his first big public appearance since the court ruling, perhaps because so many armed police did. A small crowd waved photographs of Mr Fayulu. Two hours later the police were lounging in plastic chairs at a nearby restaurant and most people had gone home. Mr Fayulu decided not to show up.

Mr Tshisekedi’s victory marks the first time an African opposition candidate has been rigged into power, says Nic Cheeseman, an expert on African elections. (Mr Shadary, the ruling party’s candidate, won so few votes that it would have been exceptionally hard to pretend that he won.)

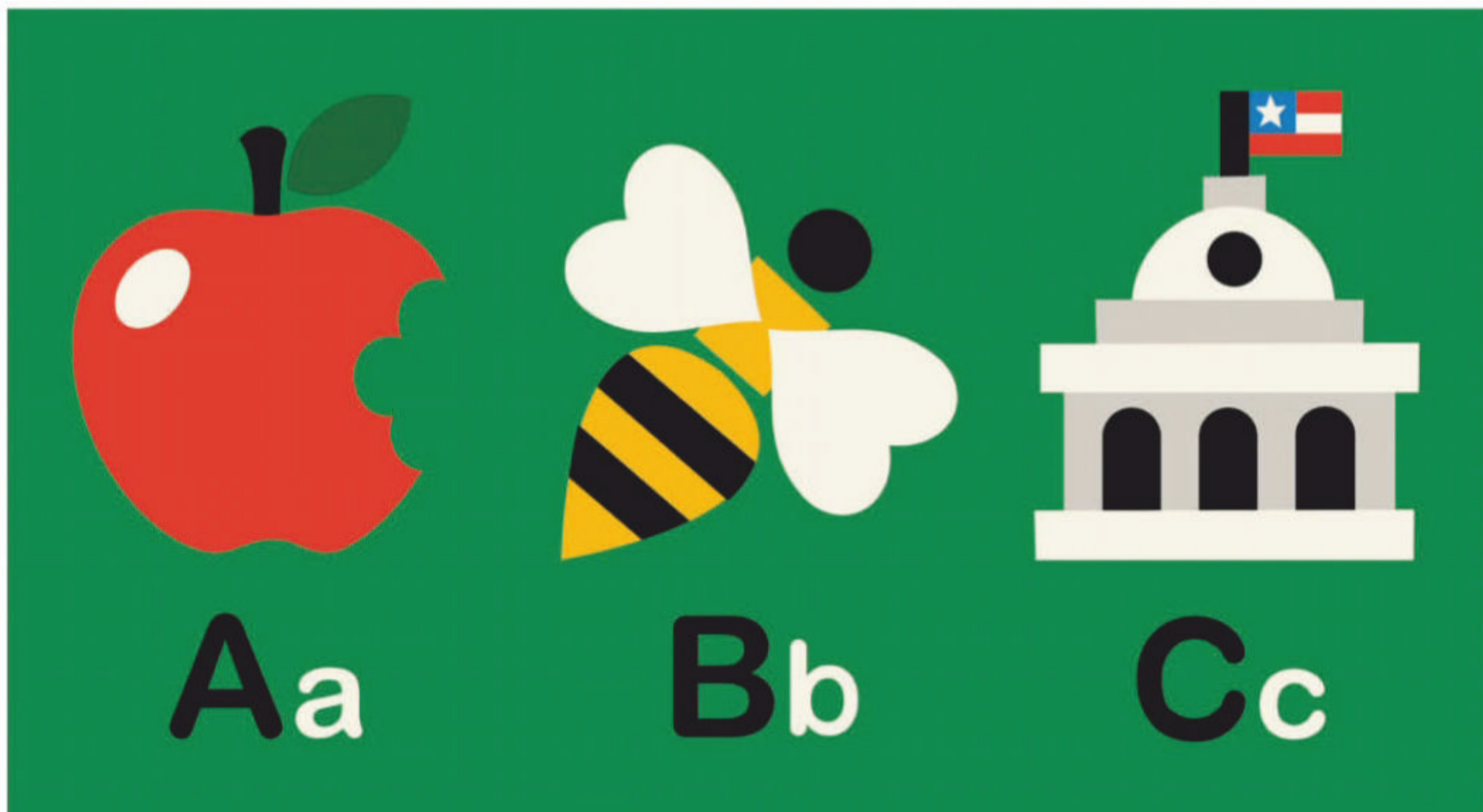
The new president represents the coun-

try’s oldest opposition party. His father, Étienne, challenged corrupt, despotic regimes for decades until his death two years ago. Many hope that his son has inherited his principles. They yearn for a leader who will halt the looting that has lasted longer than most Congolese can remember, under two President Kabilas (father and son) and the kleptocrat Mobutu Sese Seko. With all its minerals, Congo should be rich, but annual income per head is a pathetic \$400, 42% less than it was in 1990.

Mr Tshisekedi has promised, absurdly, to raise incomes tenfold. He has also vowed to restore stability in the east, where dozens of warring militias have brought misery. To do so, he will need to bring the army to heel and take on the elite that plun-



Robbed again



Early education

Young Americans

DALLAS AND SAN FRANCISCO

More politicians from both parties are taking early childhood education seriously

FROM HOT dogs, to automobiles, to diesel fuel, Americans have been touched by plenty of German inventions. Kindergarten (“children-garden”) is one of them. The programme for educating youngsters through playing and social interaction, meant as a transition from home to formal schooling, was first brought to America in the 1850s and quickly spread. Kindergarten has flourished, becoming so entrenched that it is part of the formal education system’s name (“K through 12”). Yet the garden of even younger Americans, including pre-schoolers, has too often gone uncultivated.

The share of three- and four-year-olds enrolled in pre-school has not changed much in two decades. While the average country in the OECD, a club of rich nations, enrolls 80% of its three- and four-year-old children in school, America enrolls just 54%, lagging behind Chile and Mexico. This is true despite abundant evidence of the benefits of early education, especially for disadvantaged children. High-quality pre-school programmes can have lasting benefits, including improving the odds of graduating from school, earning more and staying away from drugs and out of prison.

For parents there are gains, too: when their children are in day care, they can work.

In the shadows of a government shutdown and chaotic governance generally, one achievement of President Donald Trump’s administration has gone unnoticed. In 2018 Congress approved more than \$5.2bn in “child care and development block grants”, which subsidise child care for low-income families, nearly doubling available funding and indicating a rare example of bipartisan collaboration. Head Start, a federal programme that educates poor children before they enter kindergarten, has also received more funding.

At federal level, pre-school is still perceived as more of a Democratic issue, while Republicans are more likely to support

subsidised child care and home visits, says Libby Doggett, who served as the deputy assistant secretary for early learning at the Department of Education under Barack Obama. Meanwhile, in the various states, pre-K is being championed by both political parties. The fact that cities and states have the ability to implement their own programmes, rather than wait for the national government to act, is an advantage. High schools spread in America between 1910 and 1940 mainly because cities promoted and paid for them, says Steven Barnett of the National Institute for Early Education Research at Rutgers University, which compiles an annual report card on state pre-school programmes.

In the 36 gubernatorial elections held last November, 29 winning candidates either publicly commented on the importance of early childhood education or supported such programmes. This includes not only the usual suspects—Democratic governors in states like Illinois, New Jersey and Michigan—but also Republicans in like-minded states, including Arkansas, Georgia and Idaho. For example, Mike DeWine, the Republican governor of Ohio, who assumed office this month, promised expanded access to pre-school during his campaign. In a politically symbolic move, his first staffing announcement was to choose a director of children’s initiatives.

California’s new governor, Gavin Newsom, a Democrat, has the biggest and most closely watched plans of any state. He recently announced \$1.2bn in new funding directed at the spectrum of young chil- ▶

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► dren's needs, from home visits, to affordable child care, to expanded pre-K. Whereas many states have invested in early childhood, no state has "put together the whole continuum into a birth-to-five system," as Mr Newsom hopes to do, says Ms Doggett. Central to his plan is providing six months of paid leave for new parents, so that they can bond with and care for their infants. This is not radical by European standards, but it is by American ones.

Since California is home to around one in eight American children aged five and under, and also has the nation's highest poverty rate (after accounting for the cost of living), what happens there matters a great deal. But smaller states are also making strides. In 2002 West Virginia passed legislation that required the state to offer pre-K to all four-year-olds by 2012. Alabama is another bright spot. In 2018 Alabama's legislature bolstered pre-K funding by around \$19m, the state's largest-ever increase. Kay Ivey, the Republican governor, has been an outspoken advocate. Delegations from other states have travelled there to study its success. One lesson to draw is the importance of companies as allies. Businesses in Alabama have been prominent supporters of increasing funding for early education.

Some cities are also making strides. Texas does not have a highly regarded state pre-school programme, but San Antonio does. It raised the local sales tax from 8.125% to 8.25% to invest in full-day pre-school under its former mayor, Julián Castro. Having rolled out pre-school for four-year-olds, New York City is now expanding access to three-year-olds with the support of Mayor Bill DeBlasio.

Such widespread support tends to mask two trade-offs inherent in making early-years education more widely available. First, researchers believe that it is better to back smaller, higher-quality programmes. "It's always easier for a state to go from better to bigger than bigger to better," says David Kirp, author of "The Sandbox Investment", a book about pre-school and politics. For impatient politicians, it is tempting to go for scale first.

Second, early-years teachers are often paid little, which can hurt the quality of the programmes on offer. Earnings are so paltry that 58% of child-care workers in California qualify for some form of public assistance, such as food stamps, says Deborah Stipek of Stanford University. This contributes to extremely high turnover. Around a quarter of child-care workers and pre-school teachers leave each year, reckons Scott Moore of Kidango, the Bay Area's largest preschool provider, who says what early educators make is "unconscionable". But making programmes available to everyone makes them more expensive, leaving little to pay teachers more. ■

Democrats and democratic socialists

AO, let's go

WASHINGTON, DC

Conservatives may learn to love Alexandria Ocasio-Cortez

"THE CHOICE isn't what I'm breathing in, the choice is what I'm exhaling," said Representative Alexandria Ocasio-Cortez, at a celebration of Martin Luther King Day in the Riverside Church in Manhattan this week. "And I think that the situation right now, with this administration, with the abdication of responsibility by so many powerful people—even people who abdicate that responsibility by calling themselves liberal or Democratic—I feel a need for all of us to breathe fire."

The 29-year-old congresswoman's many critics on the right are more concerned by what they think Ms Ocasio-Cortez may be smoking. Since her demolition of Joe Crowley, a moderate Democratic leader last year, in a primary bid for his safe Bronx-Queens district, she has become a hate-figure of seemingly limitless interest to conservative media outlets. ("Fox News debuts premium channel for 24-hour coverage of Alexandria Ocasio-Cortez" snarked the *Onion*, exaggerating only slightly.) Her rare combination of success and hard-left views is the ostensible reason. In the mould of her fellow democratic socialist, Bernie Sanders, on whose presidential campaign she worked, she is for universal Medicare, a federal job guarantee, making tertiary education free and forgiving college debt. Yet a relentless focus on Ms Ocasio-Cortez's appearance, person

and spirited behaviour suggests the vituperation is fuelled by darker forces than policy disagreement.

This makes the activist left, including many at the Riverside, a stage for civil-rights leaders including Martin Luther King through the ages, love her all the more. They also love the fire-breathing rhetoric she showed off in an on-stage chat with the author Ta-Nehisi Coates. Best of all they love her ability to sock it to her right-wing detractors, typically for the benefit of her 2.5m Twitter followers. "Don't hate me cause you ain't me, fellas," she tweeted to House Republicans, after they booed her vote for Nancy Pelosi as Speaker.

That incident also exemplified the only way that Ms Ocasio-Cortez may actually matter. The right-wing hate-craze for her is fuelled by a fear that she could be about to turn America socialist. That rather under-rates the fact that freshmen House members have a long way to rise; that most of the new intake of Democrats are moderate (and many have had enough of her attention-grabbing); and that if their party ever did nominate a democratic socialist for president, she would be much likelier to keep America conservative. By far the biggest threat Ms Ocasio-Cortez represents is to her own party. Republicans ought really to love her for that.

The hard-left activist world she springs ►►



Rising to the Ocasion

▶ from mainly exists to shunt Democrats to the left. There are signs in the emerging Democratic presidential primary that it is succeeding. All three of the senators who have so far declared their candidacies—Kirsten Gillibrand, Kamala Harris and Elizabeth Warren—support Medicare-for-all, an idea that also sprang from Mr Sanders's campaign. And Ms Harris and Mrs Warren have endorsed the concept of Ms Ocasio-Cortez's signature proposal, the Green New Deal, a suite of policies to address both climate change and inequality.

Yet Ms Ocasio-Cortez wants to cause a much bigger shakeup on the left—as her on-stage reference to colleagues ducking their moral responsibility suggested. She celebrated her election last November by backing a campaign by Justice Democrats—an activist group founded by her chief-of-staff and fellow Sanders alumnus Saikat Chakrabarti—to unseat Democratic incumbents deemed insufficiently left-wing. She has since tried to make nice with the Democratic leadership, as her vote for Mrs Pelosi illustrated. “I do see my situation evolving—I take my oath of office very seriously,” she said at the Riverside. “I was giving myself a little more permission to be a little more out-of-pocket before my swearing in.” Yet keeping Ms Ocasio-Cortez sweet will be an important task for Mrs Pelosi, who has three decades more congressional experience but half a million fewer Twitter followers.

The veteran Speaker has made a decent start. But given that AOC, as the congresswoman is known, appears to have no interest in leadership positions or other plums within Mrs Pelosi's gift, she will have to work harder. Indeed, the real challenge of Ms Ocasio-Cortez's populist ideas—to both parties, but to the Democrats most urgently—is the way they expose the inadequacy of mainstream policy responses to the big problems, including inequality and global warming, she describes.

On climate, most obviously, Republicans have no basis to call her an extremist. Her diagnosis of the looming disaster is in line with scientific orthodoxy; theirs, a corporate-funded denial routine, is the outlier. Democratic leaders, by contrast, agree with her diagnosis of the problem. Yet they are alarmed by the profligacy of her proposals, which are based on an improbable ambition to decarbonise the energy sector by 2035. Their alarm is justified, yet it would carry more weight if they had more serious alternatives to offer. Republican denial of climate change has led to Democratic complacency on the issue. “This is our World War II,” Ms Ocasio-Cortez said at the Riverside. “And your biggest issue is how are we going to pay for it?” To check her left-wing enthusiasm, and perhaps save the planet, House Democrats need a better answer to that question. ■



Riding bulls

Masculinity on steroids

CHICAGO

The growing appeal of an absurdly dangerous spectacle

THE RIDER is young, pale, thin-boned, fragile-looking. In a narrow pen, he tightens straps and lowers himself astride the bare back of a brown, 900kg (2,000lb) bull. Its smell, and that of a dozen more behind the stage, is intense. It jolts a black metal gate and the stage vibrates. Even for an observer standing just above, adrenalin flows. Thousands roar as beast and man fly.

They swirl under floodlights, the bull bucks, legs high off the sandy arena floor, until the rider detaches and tumbles upwards, mercifully away from horns and wild hooves, aloft and rotating for an improbably long time. Then he crumples in the dirt. As with seven out of ten such efforts, the rider did not stay on for the eight seconds considered necessary. He collects bruises, but no points.

Bull riding used to be one of seven events in a rodeo. For the past quarter of a century it has also been a spectator sport on its own. Riders tour America's cities as well as Brazil, Mexico, Australia and Canada. They drew big crowds to shows at Madison Square Garden in New York and at a large arena in Chicago in January. A million television viewers also tune in to see Constant Sorrow, Lethal Larry and other taurines send riders such as Jess Lockwood or Chase Outlaw into the dirt.

The sport is absurdly dangerous, despite the protective gear most riders wear. Mason Lowe, a rider at a Professional Bull Riding (PBR) event in Denver, was stamped on and killed on January 15th. Yet the shows go on. Researchers

say 1,440 injuries occur for every 1,000 “exposure hours”, a rate 1.56 times riskier than boxing and 10.3 times worse than in American football. Last July Mr Outlaw broke 30 bones in his face in one ride. At least three riders were killed last year.

What's the appeal? Riders boast of thrills, money and fame. Mr Lockwood, 21 and already a former world champion, won this month's events in New York and Chicago. Rather shy, he says he likes the adrenalin rush and has ridden since he was three. The most successful earn \$1m a season, though most get far less.

For the crowd, it is the spectacle. Olivia Altstadt, originally from Puerto Rico, was at the Chicago event with her toddler daughter. “I'm a liberal arts professor, but my husband's family is from Texas and they like to come,” she says. Nelson Willis, who has brought his granddaughter for the past eight years, relishes the combination of danger and family fun. It is “a tough life, exciting”, he says.

Sean Gleason, who runs PBR, estimates that half of any crowd at a big event like Chicago's is well versed in the riders' skills, even if many also want to “see the wreck, the guy flying through the air.” Many of his viewers, he thinks, also enjoy the thrill and crashes of NASCAR racing. Is his sport thus an extreme case of the toxic masculinity which the American Psychological Association warns can harm the mental and physical health of boys and men? “We are masculinity on steroids,” he says, with a chuckle. If you think that's a problem then “don't buy a ticket...We are tough guys riding bulls.”

Foxconn in Wisconsin

Makers and takers

MOUNT PLEASANT

A whopping subsidy for a manufacturer splits Democrats along class lines

FROM KIM and Jim Mahoney's kitchen the view is spectacular. Reeds edge their garden. Beyond those, large lorries trundle past roughly once a minute. Each leaves its load on an immense rising pyramid of orange sand. Machinery clanks as yellow diggers and bulldozers toil. A white factory—a multipurpose space for robot assemblers, say the Mahoneys—recently rose where a copse once stood.

The couple had expected a bucolic life after finishing their house two years ago. It was not to be. Soon afterwards Scott Walker, then Wisconsin's governor, said their neighbourhood would be handed to a Taiwanese manufacturer. Foxconn is building a huge, \$10bn manufacturing plant on much of Mount Pleasant. Originally, at least, it promised to churn out large, latest model, LCD televisions there.

Things moved fast. Last year President Donald Trump, a golden shovel in hand, celebrated the deal just beyond the Mahoneys' garden, declaring the plant will be the "eighth wonder of the world". It will reportedly be America's biggest single foreign direct investment. Local homeowners protested, but most sold up. The Mahoneys and their dog, stubborn sorts, still cling on.

Kim Mahoney says politicians abandoned them in a rushed, murky process. Republicans trumpeted economic benefits—especially Foxconn's promise of 13,000 jobs, paying an average of over \$50,000, for low-skilled locals such as those in the nearby, depressed, city of Racine. With a venture fund and other activities, Foxconn could transform a run-down industrial region in southern Wisconsin, once famed for making Horlicks and tractors, into a bustling hub for startups.

Democrats, in opposition, did not resist much. Some harrumphed about dodgy favours for the Taiwanese, such as the easing of a rule that limits smog. Foxconn, unusually, is allowed to soak up lots of water from nearby Lake Michigan. Bizarrely, because of a special law, in effect it can even operate above some courts: it may instantly appeal against any lower court ruling that is not in its favour to the state Supreme Court.

Tony Evers, a Democrat who has just replaced Mr Walker as governor, is no firebrand. He has been cautious about the deal, lest he be seen as opposing decent manufacturing jobs. In office he is loth to scare investors by breaking his predecessor's legal contract. Urbane, educated and liberal

types in Madison, the state capital, may wring their hands. But the blue-collar wing of his party, especially near Racine, is keen. Cory Mason, a philosophical type who was elected mayor of Racine in 2017, is an avid supporter who hopes Foxconn will revive his shrinking city.

As a state legislator he was one of three Democrats who backed Mr Walker's deal. He saw a "breakdown within Democratic voters", as "class lines defined views" in the party. Those with factory jobs, or who wanted them, cheered Foxconn; those with a college education opposed it, he says. Greta Neubauer, another Democrat, a state legislator and a fifth-generation resident of Racine, agrees. She disliked the deal but, she says, as "this is happening, I want to make the most of it".

But Democrats run a risk in doing so. The Foxconn deal looks financially nonsensical. Mr Walker (pressed by Mr Trump) pledged an immense pile of taxpayers' money for a foreign firm. Tim Bartik, an economist at the Upjohn Institute for Employment Research in Michigan, estimates that state governments typically offer big investors subsidies worth 3% of wages over 20 years. In luring Amazon last year, New York offered 6%; Virginia, just 1%, for example. Foxconn's deal in Wisconsin, he says, is worth 30%, ten times the average.

Wisconsin has pledged almost \$4.5bn to Foxconn, a sum Mr Bartik says is impossible to rationalise. "In 20 years people will

point to this as an example of what not to do," he says. As Wisconsin barely taxes manufacturers, the help will come as relief on sales tax, free provision of land, and direct payments. The effect will be to divert about \$350m annually from the state budget for many years to come. Mr Evers has promised no tax rises, so spending, such as on education or health, may have to drop.

Worse, Foxconn, which is struggling with weak global sales of smartphones, is backing off its first bold promises. It will not make those big LCD televisions after all. Its local supply chain can shrink, doing without glassmakers. Instead goods will be shipped in and assembled. No one is yet sure what will be made; perhaps small screens for phones.

To lower costs, robots will do many tasks, so fewer low-skilled folk from nearby Racine will be needed than expected. Locals are also short on the necessary skills. Mark Muro, at Brookings, a think-tank, has analysed automation and the availability of workers. He says the Racine area is exceptionally short of engineering, computing or maths skills. Instead, the firm will look far and wide for engineers and developers. Foxconn rejects reports that engineers will come from China, but a person well informed about the deal says "a few hundred" Chinese workers already in America may have to move to Wisconsin.

Could the Democrats yet back away? Matt Flynn, an ex-chairman of Wisconsin's Democratic Party, hopes to lead a private legal challenge, claiming the Taiwanese firm enjoys unconstitutional favours over its special legal arrangements. And he wants Mr Evers to see if Foxconn is in breach of contract for changing its plans. His attempts are unlikely to stop the trucks and diggers. The Mahoneys expect legal mediation over their home next month. Soon they will have no kitchen to stand in. ■



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Donald Trump made a dreadful miscalculation. But he will suffer less for it than the Democrats think



WHEN DONALD TRUMP shut down the government, just before Christmas, his opponents privately shuddered. Illegal immigration, the issue he had chosen to stand on, was his most powerful weapon. And, though bloodied in the mid-terms, he retained some of the imposing aura that his stunning election, loyal base and two years without serious political opposition conferred. Yet five weeks later, with daily reports of coast guards visiting food banks, IRS desertions, and FBI indictments postponed for want of cash, Democratic opinion has been dramatically revised. Mr Trump's opponents think they have got him at last. A Democratic congressman told *Lexington* it was "unimaginable" that Mr Trump will be re-elected next year.

A more dispassionate reading of the shutdown's political fallout, as Senate negotiations point to a possible end, suggests that Mr Trump may suffer no worse than a bruising stalemate. That is not to underrate how badly he has handled the episode. Indeed, it has been a case-study in presidential incompetence.

The sketchiest knowledge of recent shutdowns could have told Mr Trump that whoever instigates one rarely gets what he wants. Voters are liable to blame him, at which point his imagined leverage becomes a handicap. And this was especially likely to happen to Mr Trump, given that most Americans don't want his promised border-wall and don't need convincing that the Democrats—the party of government—are not keen to deprive 800,000 government workers of pay. Especially so, moreover, given that Mr Trump boasted that he would happily "take the mantle" of responsibility for the shutdown before it began. Even in the rundown factory-towns of Trump country, voters have been quoting his words back to reporters ever since.

The shutdown was plainly a terrible idea. Mr Trump launched it, in response to goading from immigration hawks and with the prospect of a new Democratic House looming, at what he thought was his last moment of unrivalled power. Yet the incoming Democrats' House majority had already reduced his bargaining room, including any chance of the deal that he turned down last year: billions for the wall in return for a pathway to citizenship for the 700,000 illegal immigrants known as "Dreamers". Even if those or similar terms were on offer, moreover, Mr Trump seems too cowed

by his right-wing critics to accept them. This leaves a more modest fix as a likelier conclusion to the stand-off—the Democrats offer a bit more money for border-security provided Mr Trump reopens the government first.

That is embarrassing for Mr Trump. Even so, he has suffered less damage than his opponents think. His ratings, though down a few points, are well within the remarkably stable range they have maintained ever since his inauguration. With around 40% of voters approving of his performance, he is more popular than he was in December 2017, when he signed off on the tax cut that is his administration's single main legislative achievement.

The history of shutdown polling also suggests the knock to his ratings will be short-lived. No party blamed for a shutdown has paid a heavy electoral price for it. Political loyalties are too baked in; the federal government too remote from most people's lives. After shutting down the government for 16 days in 2013, Republicans swept the mid-terms the next year. Moreover, the nature of Mr Trump's appeal on immigration issues, which is based more on a sense of shared cultural anxiety with his voters than the promise of a concrete wall, makes them even less likely to desert him. As things stand, the Trump shutdown, already the longest and costliest of recent times, is more likely to entrench America's political division than alter it.

That might end up as a win for the Democrats. Mr Trump's base, as the mid-terms indicated, is too small to keep him in power. And yet the nativist politics he feeds it with, including the wall, are off-putting to the more discerning conservatives he needs. Elected by a minority of Americans, and ever fearful of the handful of hard-right pundits who seem to speak for them, Mr Trump has in reality always been a weak president. Yet instead of celebrating prematurely, Democrats need to reflect more carefully on why the man who bested them in 2016 might be pursuing such an apparently self-defeating strategy.

Compulsion, to be sure, is part of the answer. Mr Trump is facing a storm of investigations, as Special Counsel Robert Mueller approaches his end-game and House Democrats let fly their subpoenas. In response, he needs his conservative cheerleaders to be not sulkily willing to roll out the vote for him next year, but boiling over with protective fury. Yet Mr Trump's willingness to forsake moderation is also fuelled by his confidence that the Democrats, recoiling against him to the hard-left, will do likewise. And that, Mr Trump trusts, will persuade voters who don't much care for him to vote for him anyway.

Walls and ditches

This is how the Trump team believes he won in 2016. It considers Hillary Clinton's contemptuous reference to Trump voters as "deplorables" more helpful than anything the Russians did. It is an over-simplification at best, but one Democrats should be more mindful of than they are. Speaker Nancy Pelosi's sanctimonious reference to Mr Trump's border-wall as an "immorality" sounded too much like Mrs Clinton. And meanwhile the left-wing positions adopted by most early runners for the Democratic presidential ticket, including free college and Medicare for all, offers additional encouragement for Mr Trump's calculation.

As the ultimate manifestation of America's political dysfunction, shutdowns represent a lack of mutual comprehension as well as goals. The Democrats are right to marvel at how the current one reveals Mr Trump's ignorance of their new strength. But they should be careful. Mutual incomprehension cuts both ways. ■



→ Also in this section

42 More guns for Brazilians

— Bello is away

Venezuela's crisis

One republic, two presidents

CARACAS

Juan Guaidó has popular support and diplomatic recognition. But Nicolás Maduro still controls the army

THE CROWD urged him on. “Swear in! Swear in!” they chanted. And then he did. Juan Guaidó, the gangly 35-year-old politician—unknown to most Venezuelans a month ago—raised his right hand and declared himself acting president of the republic. Tens of thousands of people, gathered in Caracas on January 23rd as part of a national demonstration against the disastrous regime of Nicolás Maduro, now deemed a usurper, let out a raucous cheer.

By the end of the afternoon, the man Mr Maduro and his cronies have tried to dismiss as a “little boy” had been recognised internationally as the legitimate leader of a country with some of the world’s largest oil reserves. President Donald Trump was the first to endorse him; Canada and all the major economies in South America followed.

Mr Guaidó’s rise to prominence has been spectacular. On January 5th he was chosen as head of Venezuela’s national assembly as part of a power-sharing agreement between the main opposition parties. He seemed almost the accidental president, selected largely owing to the lack of other options. Of the two more obvi-

ous candidates in his party, Voluntad Popular, one is under house arrest and the other has taken refuge in the Chilean embassy. The assembly has been defunct since 2016. After the opposition won a majority in the chamber in the previous year Mr Maduro neutered it, replacing it with a pseudo-parliament that obeys his orders.

But Mr Guaidó has skilfully used his position as a newcomer with apparently few enemies to suspend the internecine disputes within the opposition and revitalise the hopes of all those who want to see the end of Mr Maduro’s rule. His emergence comes at a time when Venezuela’s neighbours, including the United States, are urgently looking for a solution to the country’s crisis. Mr Maduro’s incompetence has pauperised Venezuelans, forcing around a tenth of the population to emigrate. Last year, he held rigged elections and awarded himself a further six-year term, which began on January 10th. The Venezuelan constitution says that, if the president’s job is vacant, as the opposition claims, then the national assembly’s head should take over.

From a middle-class family in the coast-

al state of Vargas, Mr Guaidó, a former engineering student, has none of the elitist airs of the elder generation of opposition leaders. He and his family lost their home in a catastrophic mudslide in 1999, which killed tens of thousands. That experience, and the mishandling of the aftermath by the government of Hugo Chávez, Mr Maduro’s mentor, led him into politics. He joined Voluntad Popular when it was founded in 2009 by Leopoldo López (who remains the party’s leader, but is under house arrest). He has focused on tracing the billions stolen under both the Maduro and Chávez administrations.

Mr Guaidó repeatedly demurred from declaring himself president, saying he needed the support of both the people and the armed forces. The growing protests are evidence that he has the backing of the vast majority of Venezuelans, even those from poor neighbourhoods of Caracas, where hunger and anger have overcome the fear of the regime. But Mr Guaidó cannot yet claim to have the support of the army. There have been minor military revolts, most recently on January 21st, when 27 national guardsmen stole weapons and declared themselves in rebellion before being arrested. Military leaders, who control key areas of the economy from oil to mining to food distribution, remain outwardly loyal to Mr Maduro. Mr Guaidó is offering amnesties to those who defect. Until that happens, though, Venezuela will have two presidents: one with the legitimacy, and the other with the guns. ■

Murder in Brazil

Dying young

FORTALEZA

Adolescents are caught between drug gangs and police. Jair Bolsonaro wants to add more guns to the mix

THE COMMUNITY centre on the outskirts of Fortaleza, the capital of the north-eastern state of Ceará, normally hosts throngs of teenagers, who paint and rehearse plays in its tiny theatre. It has been shut on the orders of drug traffickers, who since early January have been setting fire to buses and businesses to protest against new measures to suppress gangs in prisons. Brazilian teenagers are caught in the middle. Gangs pay them 1,000 reais (\$265) to carry out attacks. Police have arrested hundreds of suspects, a third of them minors, and killed at least six people. “You can’t be neutral in the war,” says Carlos (not his real name), 18, his voice breaking with emotion. “If you’re sitting on the fence, you get shot by both sides.”

Even in calmer times, violence hits young people hard. Murder is the leading cause of death for Brazilian teenagers. In Ceará killings of adolescents increased from 191 in 2000 to 1,156 in 2017. By one reckoning in Fortaleza in 2014, 11 out of every 1,000 adolescents could expect to be murdered by the age of 19.

The new populist president, Jair Bolsonaro, says Brazil is at war. During the election campaign last year, he promised to give police carte blanche to shoot suspected criminals and to pass laws to send adolescents to adult prisons, which are already packed. He has spoken of building more jails, but probably lacks the money.

On January 15th he signed a decree that makes it easier for “good citizens” to buy guns. It ends the discretionary role of the police in granting licences. People will be able to buy guns freely if they meet conditions such as living in a place where the homicide rate exceeds ten per 100,000 people (most Brazilians do). As before, gun owners must have a job and no criminal record. They have to pass a psychological test and get training. It will remain illegal for most Brazilians to carry arms outside their homes or workplaces.

Evaldo Carvalho, who owns a gun shop four blocks from the beach in Fortaleza, thinks Mr Bolsonaro’s decree is “timid” but a step in the right direction. In his view, crime rose as a result of a gun-control law in 2003. “Criminals are more audacious when they know citizens can’t defend themselves,” he says. “More guns equal less crime. Criminals only respect people they are afraid of.” He stands to profit, too, having doubled the number of shooting class-

es in the week after the president’s decree.

Yet some of Mr Bolsonaro’s supporters are worried. Violence is “going to explode”, warns Plauto de Lima, a former director of state prisons in Ceará, who managed the successful election campaign of a pro-Bolsonaro senator. He thinks the state should invest more in crime prevention. “We always prepare for battle, but not for the post-war,” he says.

In fact, criminologists and politicians in Ceará have been considering new ways of reducing violence through a mixture of social programmes and data-based policing that proved successful elsewhere. But such ideas are out of sync with Mr Bolsonaro’s belief in the iron fist.

The causes of violence in the north-east are complex. The region has a history of settling disputes with pistols or machetes, notes César Barreira, an expert in violence at the Federal University of Ceará. The area lies on the route from drug-producing countries like Colombia to markets in Europe. Many young men migrated from rural areas to cities in recent decades just as that trade expanded. The breakdown in 2016 of a two-decade-old pact between two crime groups, the First Command of the Capital, based in São Paulo, and Red Command, from Rio de Janeiro, led to a fight for control of the slums in Ceará.

The state’s centre-left governments assumed, wrongly, that simply reducing poverty and improving education would lead to less crime. The Workers’ Party, which governed Brazil from 2003 to 2016, made the same assumption. “Public security was the great omission,” says Renato Roseno, a state congressman from the left-wing So-

cialism and Liberty party.

Then, as governments came under pressure to respond directly to rising crime, they did so ineptly. Brazil’s prison population has quadrupled to 800,000 since 2000. Prisons, designed to hold half that number, have become training grounds for gangs; the mayhem in Ceará is being directed by bosses in jail.

In 2015 Mr Roseno set up a committee that interviewed 263 families whose children were murdered and 121 adolescents who were accused of homicide. It found that more than 60% of victims had dropped out of school. Almost all were slain with guns. Most said they had experienced police violence at least once. Killings of adolescents were geographically concentrated: 44% occurred in 17 of Fortaleza’s 119 neighbourhoods.

His committee recommended action to usher dropouts back into school, tighter gun controls and human-rights training for police. This, together with data-based policing in high-crime areas, might have set an example for other states and for federal policy, Mr Roseno reckons.

Under Mr Bolsonaro, though, Ceará will have more guns, not fewer. Even before his decree, the police could not keep track of the country’s arsenal of legal firearms, points out José Vicente da Silva Filho, who was Brazil’s secretary of public security in 2002. Guns have been easy to obtain. Criminals in Fortaleza used to rent them by the hour. Rental services no longer exist because guns can be bought cheaply and easily, even at street markets.

The vast majority of guns used in crime were sold legally to citizens or police, and then lost or stolen. “The gun bought by the good citizen and the gun used by the criminal are the same gun,” notes Ivan Marques, the director of Instituto Sou da Paz, an NGO. That does not mean that the gun-control law was pointless. Without it, Brazil’s murder rate would have risen much more rapidly than it did, according to a study by the Institute for Applied Economic Research, a government think-tank (see chart).

At the community centre in Fortaleza, Carlos scoffs at the idea that criminals will be deterred by a more heavily armed population. Instead, criminals will attack citizens to steal their guns. “The criminal might die, but the good citizen will die as well. A lot of people are going to die,” he predicts. Carlos is anxious. He and three community activists discuss how he might stay alive. He could attend university in a different city. Or he could join the army. Otherwise, he will have to return to the drug gang to which he briefly belonged. Friends in the same homicide-prevention programme have been murdered one by one, mostly by gangs trying to muscle in on his neighbourhood. “We were ten,” he says, “and now we are three.” ■

About to shoot up again?

Brazil, firearm homicides per 100,000 people



Source: National statistics



Defending Taiwan

Dire strait

TAIPEI

China's growing might is forcing Taiwan to overhaul its military strategy

TAIWAN “MUST and will” be reunited with the mainland, declared Xi Jinping, China’s president, on January 2nd. Chinese leaders have been saying such things since the retreating Nationalists separated the island from the rest of the country after losing the civil war to the Communists in 1949. But Mr Xi has done more than just talk: he has sent bombers and warships to circle the island, held live-fire drills in the narrow Taiwan Strait and, Taiwanese generals say, instructed the People’s Liberation Army (PLA) to be capable of seizing Taiwan by force by next year. Back in 1996, the most recent cross-strait crisis, China’s military spending was barely twice Taiwan’s. Now it is 15 times greater. That has left Taiwanese leaders rushing to rethink their defences.

Taiwan already does a great deal to make itself indigestible to invaders. The island is “honeycombed with bunkers”, says Ian Easton of the Project 2049 Institute, an American think-tank. Tanks are hidden away in bustling neighbourhoods of Taipei. The Sun Yat-sen Memorial Highway Number One was built to handle not only rush-hour traffic, but also ten-tonne fight-

er jets, since the island’s airfields would quickly be destroyed by Chinese missiles should war break out.

America, Taiwan’s closest military ally, has urged the island to move further towards a “porcupine strategy”. It wants Taiwan to acquire smaller, cheaper and more mobile weapons that could wear down Chinese forces close to Taiwan’s shores, in the place of big, lumbering and expensive kit such as warplanes and battleships, which are better suited to projecting firepower onto China’s mainland.

Taiwanese planners have taken note. In 2017 the country’s top military officer

launched the “Overall Defence Concept”. That strategy, endorsed by Tsai Ing-wen, the president, embraces the porcupine ethos. One priority is intelligent sea mines, which can scoot around and so evade sweeping. Some are more advanced than anything in America’s arsenal. Another focus is unmanned platforms, such as remote-controlled sentry guns to guard outlying islands and armed drones to patrol the coastline. Third is an emphasis on missiles. Taiwan is churning out Hsiung Feng cruise missiles by the hundreds. These can be placed not only on small, zippy speedboats rather than bulky destroyers, but also in unmarked lorries. Such rocket-laden vehicles are hidden “in places you cannot imagine”, says one official, and could continue to operate from anywhere on the road network long after invaders had obliterated Taiwan’s fighter jets. Better yet, they are far cheaper than warplanes.

Yet not everyone is willing to jettison traditional ways of war. The new defence policy appeals to the president and her staff not only for its military virtues, but also because it favours the smaller systems that Taiwan can build itself. But the top brass has reasons beyond vanity to defend their shiny objects.

They concede that heavy tanks, big ships and fancy warplanes may not survive a head-to-head conflict with China. But they act as a deterrent and boost morale. Missiles cannot fend off prowling Chinese bombers nor speedboats patrol stormy oceans. “Parades are a form of deterrence, ▶

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▶ certainly in Asia,” notes Drew Thompson, who used to help shape policy on Taiwan at America’s Department of Defence. “Big-ticket items parade well.”

They also let Taiwan take the fight to China. Taiwan’s American-made frigates would eventually be blown out of the water, but not before their potent torpedoes might inflict serious damage on Chinese ships. That would not only boost the morale of islanders facing a hailstorm of missiles, it might also induce caution in Mr Xi.

The problem is that showcase weapons are expensive. Even domestically built sub-

marines—Taiwan hopes to make eight—cost more than \$1bn apiece; the entire annual defence budget is just \$11bn. Money is even tighter because Taiwan is scrapping conscription and shifting to an all-volunteer force. And since salaried soldiers are pricier, their numbers are fewer. Taiwan’s armed forces have shed more than 150,000 people since China’s cross-strait muscle-flexing in 1996, leaving 215,000. The country’s reserve force, its second line of defence, will also shrink with every passing year. Even so, any return to compulsory enlistment would be electoral suicide, politi-

cians say.

American arms, even big, expensive ones at odds with the porcupine philosophy, also serve a diplomatic purpose. America’s involvement in a war could be the difference between Taiwan’s survival and extinction. Just eight American submarines could sink 40% of China’s amphibious fleet in the first week of fighting, according to computer simulations by the RAND Corporation, a think-tank.

Although America does not have diplomatic relations with Taiwan, it maintains close ties. Some 3,500-4,000 Penta- ▶▶

Banyan The mystery of the ballot box

The route to open, democratic government is full of twists and turns

IT CAN BE hard to keep track of the ups and downs of politics in some Asian countries. The Maldives, for example. For decades it was a dictatorship under Maumoon Abdul Gayoom. Then in 2008 he allowed democratic elections, which were won, to general surprise, by Mohamed Nasheed, a former political prisoner. Democracy soon appeared to take a step backwards, however, when Mr Nasheed was forced out of office in murky circumstances in 2012. Soon after, Mr Gayoom’s half-brother, Abdulla Yameen, came to power. He carefully entrenched his rule, locking up all manner of opponents, from the chief justice to Mr Gayoom himself.

Yet in elections last September the Maldives’ political trajectory took another unexpected turn: Maldivians dismissed Mr Yameen, giving Ibrahim “Ibu” Mohamed Solih, a stolid ally of Mr Nasheed, over 58% of their votes. Rumours of the death of Maldivian democracy proved exaggerated.

During a long period of exile from the Maldives, Mr Nasheed had taken refuge in nearby Sri Lanka. Public life there, too, has been full of surprises lately. Although local politics had been racked by bombings, assassinations and a long conflict with Tamil separatists, democracy itself did not seem to be in peril until the end of the civil war. Mahinda Rajapaksa, the president at the time, became increasingly dictatorial after crushing the Tamil rebels in 2009. One of his brothers controlled parliament, another the economy ministry, a third the armed forces. But when his health minister, Maithripala Sirisena, switched sides to become the opposition’s presidential candidate in 2015, the picture suddenly changed. Promising liberal reforms, an end to corruption and a curtailment of

the president’s powers, Mr Sirisena won.

The outlook veered wildly again in October, when Mr Sirisena, increasingly erratic, sparked a constitutional crisis by sacking the prime minister, Ranil Wickremesinghe, and appointing Mr Rajapaksa in his place. The president was not empowered to dismiss him, but never mind: he also suspended parliament, forming, in effect, a parallel government. Activists wailed, but there was a happy resolution. In December the Supreme Court unanimously ruled that the dissolution of parliament was unconstitutional. Mr Sirisena suffered the indignity of having to swear Mr Wickremesinghe in afresh. Mr Rajapaksa slunk off the scene again. The world appeared to have been set to rights.

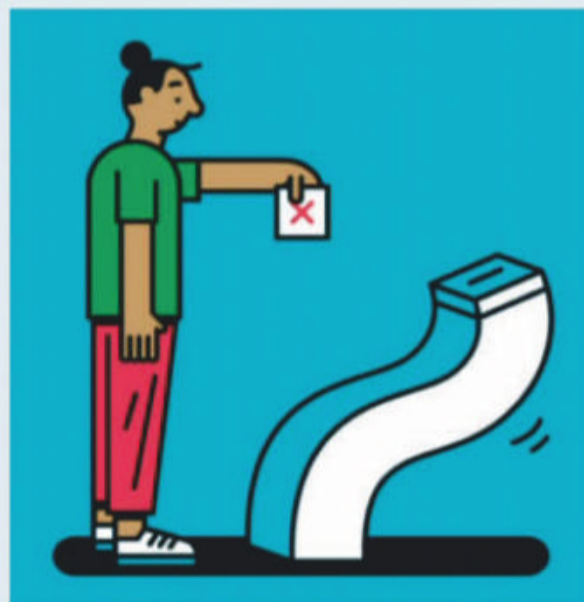
There are bound to be more lurches. Unscrupulous politicians who have done much to debase the Maldives’ politics are already returning. Among Mr Solih’s unlikely new allies are Mohamed Nazim, who encouraged the police and army to mutiny against Mr Nasheed in 2012, and Qasim Ibrahim, a resort-owner who, as finance minister under Mr Gayoom, lent himself

the equivalent of a third of the central bank’s capital. Meanwhile, Mr Yameen walks free while Mr Solih has presented Mr Gayoom with a “Golden Pen” award for services to journalism.

Many in Sri Lanka see it as only a matter of time before Mr Rajapaksa returns to power. Mr Wickremesinghe, although the dogged defender of democratic norms in the recent upheaval, is much less personable and popular. Moreover, his government’s reforms, although in many cases necessary, are widely reviled. It would be natural for voters to turn again to Mr Rajapaksa, the hero of the civil war, in spite of his disregard for democratic niceties.

Encouragingly, however, strongman rule receives its share of reversals too. Think of Malaysia, where since the country’s founding the rule of law was steadily eroded by an ever more authoritarian ruling coalition. Last year voters kicked out the thoroughly rotten prime minister, Najib Razak, despite blatant gerrymandering, a pliant election commission and lavish handouts to various categories of voters. Like Messrs Yameen and Rajapaksa, Mr Najib doubtless assumed that the election was in the bag. Who would have thought that Malaysia’s institutions remained robust enough to count the votes fairly? You never know, it turns out, when previously supine courts or quiescent voters or biddable MPs will show unexpected resolve.

Of course, travel has been largely in the opposite direction in recent years in Asia. There are the generals trying to rig elections in Thailand, the prime minister gradually squelching the opposition in Bangladesh, the president tightening his grip on Kyrgyzstan. Banyan cannot imagine what would unseat them—and neither can they.



▶ gon officials travel to Taiwan every year, an average of more than 100 per day. Arms sales have totalled more than \$15bn since 2010. The relationship is deepening in some respects. Arms transfers were previously bundled into big packages that reliably aroused Chinese anger; they are now growing more routine.

The administration of Donald Trump is stacked with senior officials who know Taiwan well and sympathise with its plight. Mr Trump delighted Taiwan's leaders by holding a taboo-busting phone call with Ms Tsai when he was president-elect. Last

year he also signed the Taiwan Travel Act, which encourages senior American officials to visit the island and vice versa. If arms sales help bolster America's commitment to Taiwan, so much the better.

Though Mr Xi clearly feels obliged to continue to hound Taiwan about reunification, he has thus far avoided laying down a firm timeline. The relatively slow growth of China's amphibious fleet casts doubt on the idea that the PLA is working flat out to be ready to invade. Nor has it been conducting big amphibious exercises. There is still time for Taiwan to sharpen its quills. ■

South Korea's judiciary

Judging the judges

SEOUL

The highest court is caught up in an influence-peddling scandal

FOR A MAN expressing remorse, Yang Seung-tae looked remarkably defiant. Standing outside South Korea's Supreme Court on January 11th, the former chief justice said he felt sorry for "causing concern to people" regarding "events" during his term at the court, which ended in 2017. "I should take responsibility." Even so, Mr Yang continued, nobody at the court had ever done anything "against the law" on his watch. Then he proceeded next door for questioning by prosecutors, to clear up all the things they had "misunderstood". He failed: on January 24th he was arrested on some 40 charges stemming from his alleged abuse of his authority as a judge.

Mr Yang's indictment entangles the judiciary in the sprawling scandal that brought down Park Geun-hye, the previous president, and has implicated business tycoons, intelligence agencies and a grand university, among other pillars of the establishment. South Korean presidents wield huge authority with little oversight—a legacy of a long period of military dictatorship. Ms Park used her clout to get many supposedly upright and independent institutions to do her bidding. (She was impeached in 2017 and is serving a long prison sentence for corruption and abuse of power.)

The prosecutors say that Mr Yang (pictured) neatly fitted this pattern, manipulating politically sensitive cases to suit Ms Park's government. In return, they say he hoped for her backing for the creation of a new court of appeals to ease the workload of the Supreme Court. (Prosecutors say he hoped to take charge of the new court.) Mr Yang is also accused of forging documents, preventing the promotion of judges with left-wing views, passing confidential in-



Now facing the other end of the gavel

formation to the president's staff and misappropriating funds.

The most prominent case Mr Yang is alleged to have interfered in concerns South Korean labourers' claims for compensation for forced labour they performed at Japanese companies during the second world war. Mr Yang allegedly delayed proceedings so as not to jeopardise Ms Park's efforts to improve diplomatic ties with Japan. The court ultimately ruled in favour of the plaintiffs after Mr Yang and Ms Park had both left office, causing the expected diplomatic ruckus. Mr Yang is also accused of trying, unsuccessfully, to move a trial relat-

ed to the sinking of the *Sewol* ferry, in which 304 people died, to a different court. (The slow response of Ms Park's government to the disaster sparked the protests that eventually led to her impeachment.)

Documents which were made public last summer suggest that abuses were widespread. Investigators appointed by Kim Myeong-soo, Mr Yang's successor, uncovered dozens of files with detailed instructions on how to consult with the government, rein in liberal judges and drag out certain cases. One document recommended Supreme Court judges consult the president's office "unofficially and in advance" to preclude "unexpected" judgments in politically sensitive cases. Lim Jong-hun, another former Supreme Court justice, was arrested in October, accused of helping delay the forced-labour case, forging documents and manipulating other judgments.

"The judiciary is one of the most privileged and exclusive institutions of the state," says Kang Won-taek of Seoul National University. "It has changed little since democratisation; no government has ever attempted to reform the courts." Park Jung-eun of People's Solidarity for Participatory Democracy, a pressure group, goes further: "Officials feel they are above the people. Everything is done internally, without public scrutiny." Senior judges belong to tight-knit networks that date back decades; many went to the same universities. Ms Park says this makes it difficult to uncover wrongdoing: "Whenever there are accusations, people stick together and the evidence disappears." She expects more cases would come to light if the Supreme Court's files were more closely scrutinised.

Most South Koreans suspect that judges are too cosy with politicians and businessmen. They often complain that corrupt bosses get off too lightly. More than four-fifths believe the judiciary needs reform, and a majority say that serious crimes within institutions of the state should be investigated by an independent tribunal.

Moon Jae-in, the president, has made the fight against corruption a central theme of his presidency, reiterating his support for judicial reform in his New Year's speech. It is a hopeful sign that cases such as Mr Yang's are now being investigated rather than swept under the carpet (the allegations against him were first aired while he was still in office, but not investigated until he had retired). Yet a constitutional amendment that aims to reduce abuses by curbing the power of the presidency failed to pass the National Assembly. Mr Moon invited Lee Jae-yong of Samsung, South Korea's biggest conglomerate, to his official residence recently, though he is still serving a suspended sentence for paying bribes to Ms Park. It will take more than a few high-profile arrests to convince voters that things really are changing. ■

Education in India

Roiled academy

DELHI

Hindu nationalists take aim at a hallowed university

YEAR AFTER year Jawaharlal Nehru University (JNU) scores among the top three of some 1,000 universities ranked by India's government. Holders of its degrees thickly populate the upper echelons of academia and government. Yet its 7,000 students and 600 faculty are bursting with complaints. The atmosphere on campus in New Delhi is "stifling". JNU is "being driven into the ground", "muzzled and leashed" and "under systematic assault". Earlier this month 49 MPs signed a letter to the minister of higher education complaining that the university was being "destroyed".

Things began to change in 2016, with the government's appointment of Mamidala Jagadesh Kumar, a professor of electrical engineering, to head the university. Within days the new vice-chancellor found himself embroiled in controversy as Hindu nationalist groups mounted a fierce campaign against JNU, accusing its students of having chanted unpatriotic slogans at a campus protest. Ten students have been charged with sedition. Instead of defending them, Mr Kumar has acted as if the university was indeed in need of more patriotic spirit and discipline. He invited hawkish ex-generals and bellicose religious figures to lecture, and proposed installing a tank on campus to inspire martial pride.

Under his leadership, JNU's administration has ended a tradition of consultation with students and faculty, and ruled instead by command enforced by punishment. Although JNU is a research institution rather than a teaching university, professors have been ordered to register attendance at classes, and to clock themselves in for work, too. National rules that limit the number of doctoral candidates any professor can supervise have been enforced, slashing the intake of new students by two-thirds, leaving faculty idle and sabotaging JNU's longstanding policy of encouraging applications from people of low caste and other disadvantaged groups. A new policy will replace all entrance tests for graduate-level studies, including a cherished system of challenging essays, with multiple-choice questions.

Routine requests for teachers to attend conferences or do field research are now rigorously scrutinised and frequently denied. One frustrated professor flew to Bangalore in southern India to receive a prestigious award, only to discover on arrival that permission to go had been withheld.

Dress codes in Japan

Defending the nail

TOKYO

A court strikes a blow against exacting "grooming standards"

JAPAN IS A country of conformity. As the saying goes, the nail that sticks up gets hammered down. For the most part, people obey rules without questioning their often flimsy or non-existent rationale. It was surprising, therefore, that two subway drivers in the city of Osaka refused to shave their beards to conform to the city's "grooming standards", despite receiving negative performance reviews and lower bonuses in punishment. It was even more surprising when, on January 16th, a court ordered the city to pay compensation to the pair for violating their "personal freedom". Another court in Osaka is due to rule soon in a similar case brought by a female pupil against the city after her school obliged her to dye her naturally brown hair black to fit in with her classmates.

Japan is rife with such rules about hair colour, style and facial hair. Schools and employers are the source of many of the silliest. Some go beyond appearance: many schools allow girls to wear only white underwear, as well as regulating the length of their skirts and the colour of their socks. Others are pointlessly hierarchical. A few companies reportedly ban new employees from using the lifts to begin with, making them climb the stairs to their offices instead.

Over the years some bizarre but once common rules have disappeared, such as bans on drinking water during PE classes, which was thought to induce stomach pain. But others have become stricter.

Despite an exposé by students, which revealed that four new faculty members had plagiarised large parts of their theses, no investigation or disciplinary action was taken against them. The university has meanwhile bestowed honorary lectureships on Rajiv Malhotra and Subhash Kak, Indians resident in America who are known for attacking Western scholarship on India and for espousing controversial views on ancient Indian science.

Both students and faculty have reacted with fury to the changes. Fully 93% of JNU's teachers' union voted in August to demand Mr Kumar's resignation—to no avail. Students have mounted flash-mob protests and produced a film detailing the vice-chancellor's failings. Students and faculty have also challenged new rules in court.

Mr Kumar, however, has the solid backing of the Rashtriya Swayamsevak Sangh, the patriarch of India's "family" of Hindu-



A land of conformists

The Project to Eliminate "Black" School Rules, an NGO, found that students are more likely to encounter strict rules on hair length, eyebrow styling and the use of lip-balm and sunscreen today than they were ten years ago.

It is no laughing matter. Annoying rules have been found to contribute to truancy, which is on the rise. Japan even has a word for suicide induced by onerous school rules—*shidoshi*. Pressure to shrug off pointless strictures is growing, as the court cases attest, but only slowly. For the moment, at least, rules still rule.

nationalist organisations. For decades such groups have agitated against what they see as a "left-liberal" stranglehold on the establishment. With the victory in national elections in 2014 of another family member, the Bharatiya Janata Party (BJP), JNU has come under fire.

Judging from some online commentary by the BJP's supporters, the changes have not gone far enough. "A surgical strike is a must on JNU," screeches one recent tweet. Another labels JNU a "Refuge of Anti National elements and Commie goons who are enjoying life at taxpayers' money [that] should be razed to ground." With an election looming in the spring that could return the BJP for five more years, it is not hard to see why the mood at JNU is grim. A professor who is also a graduate declares he will leave if the BJP gets re-elected: "As much as I love this place, I can't be beholden to their looniness." ■



The World in 2019

From turmoil in Europe to new moon landings...what will be the biggest stories of the year ahead?

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Politics in Afghanistan

Shuffling deckhands

An uninspiring list of candidates registers for July's presidential election

IT IS HARD to argue that the Afghan government is doing well. The share of its citizens living on less than \$1 a day rose from 38% in 2012 to 55% in 2017, according to its own surveys. That is partly owing to the growing strength of the insurgents of the Taliban. An official watchdog in America says the proportion of districts under the government's "control or influence" has fallen from 72% in 2015 to 56% now. It would be odd, therefore, if Afghans were to choose a figure from the current government as their next president at elections in July. Yet that is what they will have to do, given the uninspiring list of hopefuls who registered by the deadline of January 20th.

The leading candidates are the bookish, micromanaging incumbent, Ashraf Ghani, and the man he narrowly beat in 2014, Abdullah Abdullah. Mr Abdullah contested that result, eventually securing the invented post of "chief executive" as a consolation prize. This muddled the chain of authority, prompting infighting and associating Mr Abdullah with all the government's failures. Another contender is Hanif Atmar, a former national security adviser who quit Mr Ghani's government, in which he was, in practice, second in command, having sidelined Mr Abdullah.

As if to reinforce the idea that voters will have no option but to reshuffle the same elite, the most prominent candidates have changed running-mates in a confusing jumble of alliances. Mr Ghani has forsaken one of his two vice-presidents, Abdul Rashid Dostum, an ethnic Uzbek strongman accused of having a political rival sodomised with a rifle. Instead he has opted for Amrullah Saleh, a staunch critic until being appointed interior minister last year.

Mr Abdullah, meanwhile, has selected an ally of the spurned Mr Dostum as his running-mate, in the hope of securing the votes of the strongman's fellow Uzbeks. He has also enlisted a lieutenant of Karim Khalili, an ethnic Hazara and former vice-president. Other candidates include Gulbuddin Hekmatyar, a warlord who subjected Kabul to indiscriminate artillery bombardment in the 1990s, and Ahmad Wali Massoud, the brother of Mr Hekmatyar's chief foe at the time. This collection of incumbents and warlords is unlikely to inspire voters, who are young (the median age in Afghanistan is 19) and disillusioned. "I do not see any clear newcomer those who want real change can connect with," says Thomas

Ruttig of the Afghanistan Analysts Network, a research group.

If the faces are familiar, so are the difficulties of conducting a vote. The Taliban attacked voters and prevented polling in lots of places during the past two presidential elections. Mr Abdullah came second and disputed the results both times. October's parliamentary election did not inspire confidence. Voters in Taliban-controlled areas were disenfranchised. The rolls were full of errors. Staff did not seem to know how to use biometric devices intended to reduce fraud. Officials have already postponed the election by three months.

A Taliban attack on a training base for pro-government militias claimed at least 43 lives this week, underlining the parlous security situation. Mixed messages from America about whether it is planning to reduce its military presence in Afghanistan add to the uncertainty.

Also hanging over the elections are America's attempts to find some kind of political settlement with the Taliban. America's point man on Afghanistan, Zalmay Khalilzad, recently met negotiators from the Taliban in Qatar. Such meetings are frequent, but do not appear to have generated much progress. A reasonably credible presidential election is central to America's plans. An Afghan government with a strong mandate would be in a good position to talk to the militants, American officials believe. A ceasefire to ensure the election goes smoothly has been one of their early demands. But no such truce has been agreed and the Taliban refuse to speak to the Afghan government, which they dismiss as a puppet regime. The new president, whoever it is, seems unlikely to force the insurgents to think again. ■



Ghani's old hat

Extremism in Indonesia

Undeserving

JAKARTA

The president toys with releasing a terrorist ideologue

ABU BAKAR BASYIR founded Jemaah Islamiyah, the group responsible for Indonesia's deadliest terrorist attack. In 2002 bombs ripped through two nightspots packed with revellers on the island of Bali, killing 202. Between 2003 and 2009 JI staged four more large bombings in Indonesia, claiming more than 50 lives. Many of its members are dead or behind bars, including Mr Basyir, its chief ideologue, who was sentenced to 15 years in prison in 2011 for financing a terrorist training camp.

On January 18th, however, Indonesia's president, Joko Widodo, known as Jokowi, said that the 81-year-old preacher would be released early on "humanitarian" grounds, owing to poor health. Yusril Mahendra, a legal adviser to Jokowi, said the decision was proof that the president is not hostile to devout Muslims.

Jokowi, a Muslim himself, is standing for re-election in April. His political opponents have long smeared him as troublingly irreligious. To counter those claims, Jokowi has chosen Ma'ruf Amin, a prominent 75-year-old cleric, as his running-mate this time. Other conservative figures have been put on the government payroll in an attempt to quell their criticism. Many saw Jokowi's decision to free Mr Basyir as another attempt to appease the Islamists—even though there was no great clamour for his release.

But Mr Basyir has never renounced violent extremism. He refuses to accept *pancasila*, Indonesia's founding principles, which enshrine democracy and a degree of freedom of religion—normally a precondition for convicted terrorists seeking clemency. Mr Basyir's son said that his father would resume preaching if released. Sidney Jones, an expert on Indonesian militants, thinks Mr Basyir's status would be elevated if he were set free: "It would send a message that promoting violence, rejecting democracy and spreading hatred of non-Muslims are all forgivable."

Many Indonesians howled at the announcement, as did the government of Australia (88 Australians died in the bombing in 2002). Jokowi appears to be reconsidering: he now says Mr Basyir would have to agree to certain conditions before he could be released, including accepting *pancasila*, which he is unlikely to do. But the damage to the president's reputation as a bulwark against the spread of extremism in Indonesia is already done. ■



Foreign students

Silk Rhodes

BEIJING

China is using its universities to buy friendship in belt-and-road countries

IN A RESTAURANT in the backstreets of Beijing, 12 Pakistanis and Afghans studying at the China University of Communications tell stories of their arrival in China. No one came to pick them up; none of them spoke a word of Chinese. They have plenty of tales of getting lost, disoriented and ripped off by taxi drivers.

The students, all but two of them ethnic Pushtuns, roar with laughter as they swap yarns and savour the cuisine from Xinjiang, a Chinese region that borders on their home countries and has cultural bonds with them. Any ill feeling about those early days has long since dissipated. They agree that, apart from some taxi drivers, the Chinese are very helpful. Friendly relations between their countries and China mean they are welcomed as brothers. Most important, they are all on full scholarships—free tuition, free accommodation and a stipend of 3,000 yuan (\$441) a month, more than three times Pakistan's GDP per person. Beijing's many Xinjiang restaurants serving halal food are a big plus.

There are nearly half a million foreign students in China, about 50% of whom are

on degree programmes. South Koreans are the most numerous. They often come to China if they cannot get into good universities at home—unlike Americans, who come out of cultural and political curiosity, and because it looks good on their cvs. But the share of students from the developing world is growing fast, especially from the dozens of countries such as Pakistan and Afghanistan that have signed up to China's Belt and Road Initiative (BRI), a global infrastructure-building project. Overall numbers of foreign students grew fourfold in 2004-16; student numbers from BRI-related countries expanded eightfold. In 2012, the year before BRI was launched, students from those countries on Chinese government scholarships were less than 53% of the total number of recipients. By 2016 they made up 61%. China says it reserves 10,000 of its scholarships every year

for students from BRI countries. Local governments have been piling in with their own "Silk Road scholarship" schemes.

In countries such as Britain, Australia and America, foreign students are welcomed mostly because universities can make more money out of them than out of locals. In China it is the opposite. Foreign students enjoy big subsidies. Often they are more generously treated than local students. Last year the Ministry of Education budgeted 3.3bn yuan for them, 16% more than in 2017. The rich world is selling education. China is using it to buy influence.

The cheerful Pushtuns are one manifestation of China's strategy. Another are the more than 500 Confucius Institutes which the government has set up on campuses around the world. Offering heavily subsidised classes in Mandarin, the institutes have aroused suspicions in the West that China may be using them to exert political influence. Such worries have prompted several universities in Europe and America to close them. There has been far less resistance to China's stepped-up efforts to bring students to its own territory and, it hopes, to influence them there.

It is a familiar path among aspiring superpowers. Just as Cecil Rhodes endowed the Rhodes Scholarships a century ago to preach British imperial virtues, America set up the Fulbright programme in 1946 to spread American values and the Soviet Union created Patrice Lumumba University in 1961 to teach socialism to students from third-world countries, so China is using

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► higher education for political ends. One of its aims is to strengthen ties with BRI countries. *Global Times*, a state tabloid, paraphrased a former Chinese envoy to Iran (a BRI participant) as saying that studying in China would help people to understand China's political system and avoid "ignorant Western bias" against the country.

For many of the foreign students, a cheap degree is the main attraction. Several of the Pakistanis tried, but failed, to get European, North American and Australian scholarships; getting a degree at home would be much costlier than the one the Chinese are offering. And the China-Pakistan Economic Corridor, a huge BRI-related project in Pakistan, means that jobs are plentiful there for those with Mandarin. Bilal, one of the Pushtun students, says that when he was returning to China from a visit home, he was offered two jobs while waiting at Karachi airport.

For many of the students, language is a problem. Some universities have created English-medium courses—Richard Coward of China Admissions, a firm that helps students find university places, knows of 2,000 such programmes—but many students have to use Chinese and few speak it well. That is difficult for teachers. "The government and the universities don't want the foreigners to fail, but as the number has increased, the quality has fallen," says Shuiyun Liu of Beijing Normal University. There is some grumbling among young Chinese about the ease with which, in spite of this, foreigners walk into good universities and about the superior facilities they are sometimes offered.

Foreign students have reservations, too, says Ms Liu, who has researched foreigners' satisfaction with teaching in China. "The rules are all hidden here," she says. And the relationship between teacher and pupils is different. "There's not much critical thinking. Students are not always encouraged to challenge the teachers." Learning in China can be an endurance test. Lectures commonly go on for three or four hours, with only a ten-minute break. "This morning I fell asleep after three hours," says one of the Pakistani students.

That said, students from developing countries tend to be more enthusiastic than students from the West. "The culture is amazing," says Ugochukwu Izundu, a Nigerian who did a master's degree in data analysis at Xi'an Jiaotong Liverpool University in the eastern city of Suzhou. "I believe China is a force for good in the world," says Goodwill Mataranyika, a Zimbabwean at Shijiazhuang Tiedao University in Hebei, a northern province. "The Belt and Road Initiative is an economic corridor for mutual benefit, and China is also investing in Africa for a shared win-win benefit for all nations." (Nigeria and Zimbabwe are signatories to BRI.)

For all such talk, personal relations between the foreigners and their Chinese fellow-students often remain distant. The Pakistanis and Afghans speak warmly of the friends they have made from other countries, but they do not have any Chinese ones. "I would try to talk to them," says Bilal, who did his degree in Chinese. "But when we did group assignments, they would make their own groups, and the foreigners would be left to work together. I don't know what it is. Maybe they're shy." Still, Bilal has no complaints. He has married a Brazilian he met in China and now works in the Pakistani embassy in Beijing. "I got a scholarship, a language, a job and a wife. God smiled on me." ■

The judiciary

Politics v the law

BEIJING

A celebrity blogger shines a light on intrigue at the supreme court

IT SEEMS LIKE a story straight out of a legal thriller: powerful figures conniving in the shadows at the highest level of the legal system to tip the scales of justice in a dispute over billions of dollars' worth of mining riches. Also featured are sabotaged security cameras, missing court documents, the apparent disappearance of a supreme-court judge and the downfall of a provincial Communist Party boss. Twists in the plot are being recorded by China's state-owned media. But it is a celebrity television-host and blogger, Cui Yongyuan (pictured), whose tweets have been keeping the story moving.

It involves a legal battle waged by a private firm against a state-owned one over rights to a coal mine in the northern prov-



Cui's words have power

ince of Shaanxi. The dispute involves a deal worth 100bn yuan (\$15bn). In 2017 the Supreme People's Court ruled in favour of the private company. But in December, in a series of posts on Weibo, a Twitter-like platform, Mr Cui alleged that senior judicial and provincial officials had earlier pressed the court to rule the other way. He said that security cameras had gone suspiciously dead as documents related to the case vanished from the office of Wang Linqing, a supreme-court judge, before he issued the verdict. How, Mr Cui wondered in one of his tweets, could anyone enter the court "when even a mouse could not"?

Initially the supreme court dismissed Mr Cui's reports as "rumour". A few days later it admitted the loss and launched an investigation. State media began to pick up the story. Without those documents, they reported, the court's ruling could not be enforced. Earlier this month, Mr Cui posted a video in which Mr Wang confirmed the story about the documents. Days later, however, Mr Cui tweeted that Mr Wang himself had gone missing—into some form of custody, Mr Cui presumed. The blogger said he was in contact with the judge and was worried about his fate.

Mr Cui is a rare thing in China: a prominent social campaigner who gets away with it. Last year his revelations about tax evasion in the film industry led to Fan Bingbing, a famous actress, having to pay about 880m yuan in fines and back taxes. Mr Cui has also railed against the government's plans for genetically modified crops; his views, which defy the scientific consensus, have had an outsized influence on national debate over the issue.

Unlike previous scandals in which Mr Cui has taken an interest, the supreme-court case has political ramifications. On January 15th it was announced that Zhao Zhengyong, the former party chief of Shaanxi, was being investigated for unspecified "serious violations of law and discipline". *Caixin*, a respected magazine, said Mr Zhao was implicated in the coal-mine case. State media have also linked him with a scandal involving a string of luxury villa compounds in Shaanxi. The central government ruled that the villas were built illegally. In 2014 Mr Xi himself ordered that they be torn down, to no avail. Earlier this month state television showed that demolition was at last under way.

Political interference in the judiciary would be no surprise to the public. At a conference this month on "legal-political" work, Mr Xi said judges should "perform their duties independently and fairly". But he also stressed the "absolute leadership of the party" over courts. As a Chinese legal scholar puts it: "The power the party has to intervene in political cases is exactly the same power officials abuse to serve their own commercial or private interests." ■

THE
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Rare cancers present doctors, researchers and patients with a unique set of challenges. Rare cancers often are diagnosed at later stages. Patients typically have limited treatment options, in part because the small number of diagnoses makes gold-standard clinical trials difficult. The picture is further complicated by increasingly expensive cancer-drug costs.

Yet the promise of emerging technologies, improved diagnostics, targeted therapies and enhanced pharmaceutical options provides hope. Calls for new ways to study rare cancers are being made so that patients can get access to better treatments more quickly.

In this webcast panellists will discuss how advances in cancer immunology, innovative trial designs and international data sharing can create new hope for patients with rare cancers.

Expert participants

Laurie Glimcher, President and CEO, Dana-Farber Cancer Institute

Razelle Kurzrock, Senior Deputy Director, UCSD Moores Cancer Center

Jill O'Donnell Tormey, CEO and Director of Scientific Affairs, Cancer Research Institute

Greg Simon, President, Biden Cancer Initiative, and Former Executive Director of the White House Cancer Moonshot Task Force

Moderator

Natasha Loder, Health Policy Editor, *The Economist*

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Chaguan | Seeing the wood for the trees

China wants to defend the global environment. That will require it to embrace global norms



DURING THE last ice age, when glaciers blanketed most of Eurasia, the peaks and plateaus of the Hengduan mountains in south-west China were spared. So many animals, birds and plants found a refuge there that, to this day, a quarter of China's mammal species live in that remote corner of Yunnan province. Strict laws protect a park created at the heart of the mountain range, embracing many varied habitats, from alpine woods filled with snub-nosed monkeys to the parallel gorges down which thunder the headwaters of three great rivers, the Yangzi, Mekong and Salween.

Chinese officials are justly proud of this lovely place, and are clear that only high-quality administration can keep it safe. No detail was too small when they drew up a master plan for the park, now dubbed, not very poetically, the "Three Parallel Rivers of Yunnan Protected Area". That plan included airborne and satellite monitoring to enforce rules, caps on tourist numbers and efforts to attract "high-income and well-educated visitors".

President Xi Jinping, China's leader, would surely approve. Mr Xi calls environmental protection a "battle" against all forms of pollution, from belching factory chimneys to official misdeeds. In May 2018, in a speech calling on China to build an "ecological civilisation", Mr Xi expressed confidence that strict enforcement of the law would help. He added that in this fight China would enjoy the great advantage of centralised, unified Communist Party rule.

For the world's tree-lovers, this is a complicated moment. It is a great advance that, for the past 20 years, the country has been working to protect the few Chinese forests that have survived centuries of over-exploitation, and planting new ones. But over the same period, China has also seen wood imports shoot up, from 8.8m cubic metres of forest products (excluding newsprint) in 1998 to 104m cubic metres in 2016. China has become the largest importer of wood, including rare tropical hardwoods, and the largest exporter of things made from wood, from furniture to flooring.

In the process, Chinese traders have snapped up timber from countries with governments that range from ineffective to outright wicked. In its most recent biennial review, the International Tropical Timber Organisation, an intergovernmental agency, could not hide its concerns about the effects of some Chinese imports. The Solomon Islands, a Pacific country, is shipping trees to

China at such a rate that its forests may be exhausted within a decade, the agency lamented. Others worry about such producers as Papua New Guinea (PNG), China's largest single source of tropical wood. Chinese buyers brandish sheaves of permits when they import logs of *taun*, pencil cedar or *kwila* from the country. Alas, PNG's indigenous landowners and politicians, including a provincial governor, have called some logging permits a cover for illegal felling. An annual human-rights report on PNG by America's State Department names logging as an industry rife with official corruption.

Global Witness, a watchdog, has lobbied Chinese officials to make it a crime in China to import timber cut down in breach of another country's laws—following similar laws already in force in America and the European Union. The group has offered to teach Chinese businesses how to conduct due diligence on tropical timber, says Yin Beibei, a forestry expert with Global Witness. Firms typically offer two arguments in reply, says Ms Yin. The first is that it is too hard for them to assess the validity of permits issued in far-off lands. "Their second argument is: these are permits issued by a sovereign government and it's not our job to judge."

From a Chinese plywood-maker, that refusal to judge may sound shabbily self-serving. But the argument has pedigree. The principle of non-interference in the internal affairs of other countries is a pillar of Chinese diplomacy. China calls its ask-no-questions approach a sign of respect for developing partners. In effect, China sees the way countries are run as a cultural matter; it would no more tell another government how to police its forests than suggest which god to worship. Western countries, by contrast, view such matters as a question of science. To them, clean government is like clean water: a boon that it is cruel to deny to anyone.

Moral relativism has been exceedingly convenient for China over the years. Only this month the foreign minister, Wang Yi, swatted aside charges that China is burdening African allies with too much debt, saying that Chinese loans merely respond to African demands for assistance, and always abide by local laws.

Yet there are signs that China's see-no-evil approach is bumping up against its ambitions to be an ecological exemplar. Forestry policy is a good place to see this. Luo Xinjian, an official at the National Forest and Grassland Administration, last year helped launch the Global Green Supply Chain initiative, a voluntary scheme to help Chinese timber firms ensure that imports are not just legal on paper, but are also sustainable. With margins tight, no single company can afford to be a green champion by itself, Ms Luo says. But she senses an "inner awakening" among entrepreneurs.

Global headaches, universal remedies

In the field of environmental protection, at least, China's government is also waking up to the importance of global rules and norms. Take that park in the beautiful Hengduan mountains. In 2003 China successfully secured UNESCO world-heritage status for it, in part by promising to protect such precious places not just for China's sake, but as "the commonwealth of all mankind". Mr Xi has called for China to become "deeply involved in global environmental governance", notably when it comes to climate change.

That is both good news for the world and a dilemma for China. For if saving trees in Yunnan, say, is a global good requiring strict oversight and the rule of law, why are trees in Papua New Guinea any different? A globally conscious China should promote clean government, environmental-impact assessments and monitoring everywhere. The world should thank Chinese leaders for stumbling into this logical position, then try to hold them to it. ■



Sport and safety

Knocking heads together

Few sports are doing enough to protect athletes from brain damage

FANS OF LARGE men colliding with one another are in luck. Next weekend the Six Nations, a rugby contest for the best teams in Europe, gets going in Paris. Two days later the Super Bowl kicks off in Atlanta. Some 115 cameras will beam the final of the National Football League (NFL) to fans around the world, along with advertisements urging viewers to drink beer and eat nachos. It is not a time for healthy living. Yet there is growing awareness that it is not just gluttonous fans who suffer. Contact sports can lead to serious health problems for the players, too.

An occasional broken limb is an accepted, if unfortunate, part of such games. The big worry is about what they do to the brain. In 2017-18 some 291 concussions were reported in the NFL, the highest number since records began six years ago. The same year English rugby union recorded 18 concussions per 1,000 hours of play, almost one a match, and three times as many as five years earlier. In December last year,

Nicolas Chauvin, an 18-year-old rugby player for Stade Francais's youth team, was killed when a tackle went wrong. He was one of at least four rugby players to die from head injuries in 2018. *L'Equipe*, a French newspaper, reached a simple conclusion: "Rugby kills".

Seeing stars

Even when contact sports do not kill, they can still do grave damage. A study in 2017 of 111 deceased NFL players found that 110 had chronic traumatic encephalopathy (CTE), a degenerative disease that may cause erratic behaviour, memory loss and depression, and can be diagnosed definitively only after death. The study was self-selecting because families nominated deceased relatives with symptoms of the disease. But evidence from it and from analysis of collisions in the NFL suggests that 20-45% of professional American footballers may sustain CTE during their careers, a far higher proportion than among the general pop-

ulation, says Thomas Talavage of Purdue University. Last year a study found that retired rugby-league players aged 40 to 65 had significantly worse reaction times and overall cognitive performance than others their age. Suffering a severe concussion also increases an individual's chance of getting dementia later in life.

Nevertheless, the rise in reported concussions is not all bad news. Since 2001, when medics ironed out the injury's definition, there have been improvements in how potential concussions are dealt with. Rather than stoically carrying on, players are more willing to admit to concerns about their heads. Michael Turner of the International Concussion and Head Injury Research Foundation says this is crucial because concussion is far harder to diagnose than most physical injuries, and second impacts—when a player is hit on the head while playing with an undiagnosed concussion—are more likely to lead to lasting damage and even death. "Now that we're better at diagnosing [concussion] we're going to see more of it," he says.

But there are less reassuring explanations for why concussions are being reported. Paradoxically, one reason for the trend may be improvements in technology designed to keep players safe. In American football better helmets have reduced the risk of skull fractures. They have also changed playing styles, making players ▶

▶ more comfortable using their heads as weapons with which to dislodge the ball, notes Dr Talavage. Similarly, an increasingly professional approach to physical conditioning has made collisions more dangerous, as players are stronger, faster and heavier than they used to be. Three decades ago the average rugby player in the New Zealand national team weighed 92kg. Today he weighs 106kg.

Collisions are not only more explosive, they also happen more often. Modern sports schedules are relentless. A new rugby-union calendar, to be introduced next year, means elite players will compete for 11 months of the year. More women are also playing contact sports, and are twice as likely as men to suffer concussion when doing so, says Dr Turner.

A matter of life and death

Other sports also face growing concern about head injuries. In 2014 Phillip Hughes, an Australian cricketer, was killed by a blow to the back of the neck from a ball. Last year a female Australian rules football player was killed after clashing heads with a team mate. Since 2017 four professional boxers have been killed by head injuries sustained during bouts. And one study in 2017 found that four British footballers, known to be frequent headers of the ball, had CTE at the time of their deaths. The Drake Foundation, a charity, is now conducting research to find out how common the disease is among footballers.

Youth sports have been quickest to make changes. Brains do not finish developing until humans are in their mid-20s, which makes head injuries suffered before then especially dangerous, says Hans Breiter of the Concussion Neuroimaging Consortium, a research group. In America one in seven high-school students reports having sustained at least one concussion during sport or physical activity in the past year. Such findings probably understate the true extent of the problem, since many concussions will pass unnoticed without medical attention at the time of the blow to the head.

Growing numbers of youth-sport organisations are therefore reconsidering their rules. In America soccer's governing body has abolished heading for players younger than 11 and ice-hockey leagues have banned body-checking (where players drive their upper bodies into opponents to stop them reaching the puck) for those younger than 13. Meanwhile, the Ivy League American-football competition has moved the kickoff and touchback lines to encourage players to avoid collisions with one another. As a result, the rate of concussions per 1,000 kickoff plays has decreased from 11 to two.

Some professional sports are beginning to make similar tweaks. In 2014 Major League Baseball amended its rules to pre-

vent base-runners and catchers colliding. The second-tier rugby-union cup in England is currently experimenting with lowering the maximum height at which a tackle is allowed to the armpits of the person being tackled, rather than to below the neck. After the recent deaths in France, the national rugby federation has discussed banning head-to-head tackles, two-man tackles and even all tackles above the waist.

Changing practice routines is another way to make sport safer. Coaches who insist on competitive conditions in training may end up harming their players. Under Eddie Jones, the England rugby-union coach since 2015, the number of days lost to injuries incurred during skills training has risen fivefold.

Again, youth sports may show the way forward. The West Lafayette American football team, at a high school in Indiana, uses data to spot the practice drills that involve the most contact between players, and then refines them to reduce the danger of harmful collisions. The side undertakes only one full-contact training session in the entire season (the rest of the time players practise tackling on dummies filled with air). From next season, every player will be fitted with sensors to track blows to the head. "Safety is our number-one priority," says Shane Fry, the side's head coach.

Few other sports teams, or associations, can say the same. The NFL has limited contact in training sessions and moved the kickoff line, but lags behind the Ivy League. Soccer does not permit special substitu-

tions for players with concussion at any level, thus encouraging players to continue with head injuries. During the World Cup last year, footballers showing two or more symptoms of concussion were checked by medics just 37% of the time, according to a study by Ajay Premkumar of the Hospital for Special Surgery in New York and colleagues. International cricket has no enforceable guidelines for how to manage players after they have been hit on the head by the ball. Remarkably, taekwondo's governing body last year decided to change the points system to increase the incentive for fighters to kick opponents in the head.

Moreover, a lack of funding means that many basic questions about head injuries remain unanswered. It is, for instance, unknown whether CTE is caused by a series of blows to the head or a single powerful one. Few sports associations have stepped in to help. In 2017-18 England's Professional Footballers Association, a representative group, spent £125,000 (\$160,000) on research into head injuries. The same year the organisation's chief executive took home £2.3m.

Winning comes first

Some experts are pessimistic. Dr Talavage worries that the slow pace of change reflects a belief among those in charge of sports that most fans do not care much about the players' safety. So far, viewers have not switched off from dangerous sports as awareness of concussion has grown. And there is no strong movement to ban even the most dangerous spectacles, such as boxing and mixed martial arts.

Yet sports that fail to grapple with the problem may expose themselves to legal peril. In 2015 some 5,000 former players successfully sued the NFL, winning payouts that are expected to come to around \$1bn. The money will go to former players suffering from medical conditions related to head trauma, as well as the families of those who have already died from such conditions. Another lawsuit is being brought against the governing body of Australian rules football. Some experts wonder if sports may now be vulnerable even if they do change the rules, as they may still be sued for not having done so sooner.

And then there is the next generation. The number of children playing high-school American football in America has fallen by 6% in the past decade. In England the proportion of children aged 11-15 playing rugby has dropped by a third since 2011. Fewer enthusiastic young players could eventually lead to fewer lifelong fans. Although contact sports will never be able to completely eliminate on-field tragedies, it is clear that changes to the rules can reduce risk. There would be a small measure of justice if sports that are slow to adapt suffer as a result. ■





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Reliance Jio

India's new Jiography

MUMBAI

Indians are getting onto the internet faster than ever, mostly thanks to the ambitions of Mukesh Ambani

FOR A GLIMPSE of how the internet is taking hold in India, catch one of Mumbai's double-decker buses. Even at rush hour, when people pack so tightly into the ancient vehicles that it is difficult for the conductors to collect fares, and stragglers hang out of the open door, commuters still find space to get out their mobile phones. Dozens of tiny screens glow with WhatsApp messages, news and gossip sites, Bollywood films and Hindi serials.

Just three years ago there were only about 125m broadband internet connections in India; by last November the number had reached 512m. New connections are growing at a rate of 16m per month, almost all on mobile phones. The average Indian phone user now consumes more mobile data than most Europeans.

If any one person can take credit for this spectacular growth, it is Mukesh Ambani, India's richest man. With his service, Jio, a mobile network launched in 2016 offering cheap, high-speed data, he has upended Indian telecoms and changed his country. Much of his fortune comes from a chemicals and refining business inherited from his father; his conglomerate, Reliance Industries Limited (RIL), is one of India's biggest. Unlike other phone firms, which

make their money from call charges, Jio from the start gave phone calls and text messages away freely alongside data.

Now Mr Ambani seems to want to go further and become an Indian Jeff Bezos or Jack Ma, using Jio as a launch pad—the platform now has a whopping 280m users. One prong of this will be online shopping; on January 18th he announced that Jio would join up with RIL's retail arm, which has nearly 10,000 outlets across the country, to launch a new e-commerce platform, taking on both Amazon and Flipkart, a local firm last year bought by Walmart for \$16bn. More digital services, and content creation, are in the offing.

Both foreign and local competitors grumble about the circumstances of Jio's birth. The radio spectrum it uses was initially reserved for data-only services, and bought in a government auction in 2010 by an unknown company called Infotel Broadband Services. Mere hours afterwards, the company was bought by RIL. In 2013 the company won the right to run voice services on its 4G spectrum, using VoIP (Voice over Internet Protocol), after the government ordered the regulator to change its rules. When Jio was launched in 2016 it had had plenty of time to prepare.

Rivals complain that they would have paid more attention in 2010 had they known Reliance would back the venture.

So as not to limit the market to people who can afford smartphones, Jio also launched its own 4G feature-phone, the JioPhone, which it says is “effectively free”. Customers pay only a refundable deposit of 1,500 rupees (\$21) for the device, with which they can use WhatsApp, watch YouTube and take pictures. As Mr Ambani said last year, for most users their Jio connection “is not only their *pehla* [first] phone but also their *pehla* radio and music player, *pehla* TV, *pehla* camera and *pehla* Internet”.

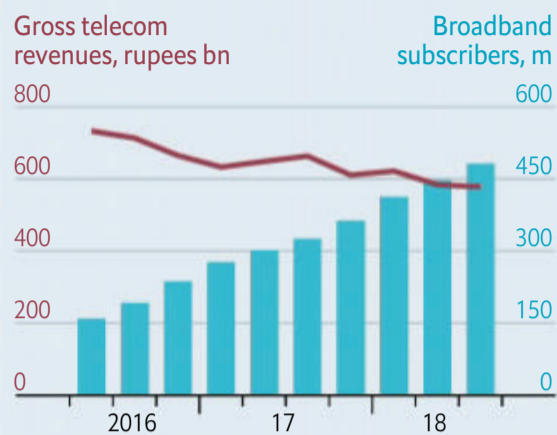
Data in India now cost less than in any other country. On average Jio's users each download 11 gigabytes each month. Finns, the world's hungriest consumers of cellular data, gobble 14 gigabytes. Jio users watch 17.5 hours of mobile video a month, far more time than they spend watching TV.

Astrological development

Fast-rising consumption is provoking changes, many for the good. Yogendra Meritiya, who runs a farmers' collective in rural Rajasthan, says the internet is subtly altering the village he lives in. “Rajasthan is a feudal sort of a state, and on the face of it everything looks like it did ten years ago, but actually there are huge social changes,” he says. Lower-caste men these days can check their horoscopes online, instead of having to visit the local Brahmin astrologer, for example. Women who are scarcely allowed to leave home are able to search for information online. Politicians calling for the prohibition of alcohol have been able to win votes by appealing to female voters ▶▶

Bigger data, shrunken sales

India



Source: Telecom Regulatory Authority of India

through their phones. Enterprising young people can become local celebrities by building what Mr Mertiya calls “a small following” of “perhaps a million subscribers” on YouTube. A Bollywood channel of songs and clips, T-Series, seems set to soon become YouTube’s most-subscribed.

Not all the effects are positive. Rumours and spam spread through WhatsApp messages have become a public menace, in some cases even inciting lynchings. Another problem, at least in the eyes of the government, is the spread of pornography. In September a court ordered telecoms operators to block 827 porn sites to stop children being exposed. That so many men seem to like watching it in public places may have weighed on the judges’ minds.

So India is being transformed. But will the bet pay off for RIL and its shareholders? So far RIL has spent a massive \$32bn on Jio, with limited return. Mr Ambani’s firm has certainly succeeded in ejecting competitors. Since its entrance, six firms have gone out of business, including the one owned by his brother Anil, RCom. India’s telecoms industry has shrunk to four big companies (see chart 2). Bharti Airtel, previously the market leader, now relies on its enterprise and African businesses to keep it afloat. Vodafone has merged with another firm, Idea, and the new group is selling assets and raising capital to cover its cashflow deficit.

Squeezing out competitors has not yet translated into juicy profits for Jio. Since the middle of 2016 total revenue earned in Indian telecoms has shrunk by 21%, even as connectivity has soared (see chart 1). According to RIL, Jio made a profit of 25bn ru-

pees in the latest quarter. Bernstein, an equity-research firm, has suggested that its treatment of depreciation and amortisation is unusual in the industry and may understate its costs. Jio says its method adheres to Indian accounting standards.

And by some targets it set earlier, Jio seems to be doing less well than it had hoped. In 2017 it said that by 2020 it aimed to capture a 50% revenue share of a market it said would grow by 50%. Today Jio’s share is around 26% of an industry it has made smaller in revenue terms. It has all come at a big cost to RIL and its shareholders. According to Credit Suisse, a bank, by 2018 capital investment in Jio reached about 700bn rupees a year. The conglomerate’s debts have risen to around 3trn rupees, close to its annual revenue of 4.3trn rupees.

For India’s telecoms industry to be profitable again, prices need to go up by about 50-70%, reckons one analyst. Competitors are holding on, assuming that will happen, and RIL’s share price has risen by 28% in the past 12 months on hopes Jio can cash in later. But it is hard to predict Mr Ambani’s next moves. His ambition to become a tech tycoon goes beyond making money in telecoms. As well as the new e-commerce platform around Jio, RIL separated its fibre-optic cables and towers from Jio last December to create a new firm that is preparing to provide wired broadband to homes. Other digital services would follow, such as web-hosting for firms. RIL has also invested in content creation, and has bought rights to distribute cricket matches and Disney films on its “JioTV” platform.

All this will bring Mr Ambani into direct competition with big e-commerce firms already investing heavily in India, including Google, Amazon and Flipkart. Their appetite for India’s market has been whetted by Jio’s connectivity explosion, but their executives will be worried that the government may favour Jio, a local champion. On January 18th Mr Ambani argued that the government should prevent data colonisation; Indians’ data, he said, must not be controlled by global corporations.

Foreign e-commerce firms are already banned from holding inventory in India. In December they were also banned from selling products from firms in which they have an equity stake (a common workaround). Incumbent telecoms firms, too, have seen many recent regulatory decisions (such as

one on whether rules on predatory pricing apply to Jio) go against them.

Mr Ambani will need to keep regulators happy if RIL is to earn decent returns on its investment in Jio. Even if he fails in that, he will have helped hundreds of millions of Indians get a first taste of the internet. One recent Indian social-media craze was sharing grainy pictures from the weeklong wedding for Mr Ambani’s daughter in December, where the entertainment featured Beyoncé. A few years ago, Mumbai’s hard-pressed bus commuters would have had no idea of the extravagance in their midst. ■

European industry**The big merger that couldn’t**

BERLIN AND PARIS

The creation of a European rail champion looks headed for the buffers

IT TAKES ONLY a minute or so for a conductor to couple two trains headed in the same direction. Merging their manufacturers is a trickier process. Siemens and Alstom, big, old engineering firms from Germany and France respectively, have been trying to gain regulatory approval to join their railway operations since September 2017. Seemingly to no avail: European competition authorities are poised to block the deal next month.

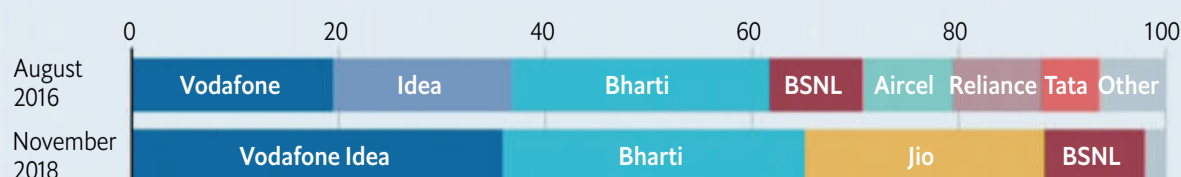
The prospect of creating a European rail giant has pitted politicians against trustbusters. Competition authorities fret the combined group would dominate some bits of the rail business, such as making train carriages or track signals. The competition bods at the European Commission, in charge of clearing big mergers, have been sending ever-clearer signals that they will give a red light to Siemens-Alstom on February 18th, when the decision is due.

Yet politicians continue to be enthusiastic proponents of the deal—and are making their views known. Peter Altmaier, the German economy minister, argues that such mega-mergers are necessary for European groups to compete globally. France’s finance minister, Bruno Le Maire, tried to sway the European competition commissioner, Margrethe Vestager, this week.

The elephant in the carriage is the transformation of China from a large-scale buyer of such industrial kit to a potent exporter. The Alstom-Siemens merger was designed in large part to take on CRRC of China, a giant state-backed rail group with global ambitions. Advocates of the merger say the mere existence of CRRC is a reason to think Siemens-Alstom will face hefty competition. The trustbusters note that the Chinese firm has made few inroads into

And then there were four

India, wireless-subscriber market share, %



Source: Telecom Regulatory Authority of India

▶ Europe, at least for now.

More broadly, the politicians think the technocrats are forcing European firms to stick to rules no one else is adhering to. In the age of increasing protectionism, they accuse Europe of being naive in its dealings with America or China, which don't hesitate to gorge their own firms with soft loans or otherwise make life hard for foreign competitors. This echoes the firms' thinking: Joe Kaeser, the boss of Siemens, argued this week that competition authorities needed to look into "global social economic factors" to make a decision.

Analysts at Citi, an investment bank, say the market is pricing in a less than 10% chance Siemens-Alstom will come into being. The putative merger partners could yet make the deal more palatable to Ms Vestager by promising more concessions, for example the divestment of assets or licensing their technologies to rivals, though time is running out. For its part, Siemens says it has made as many concessions as it can stomach. If the deal falls through, it may spin off its rail operations into a stand-alone business, perhaps giving it a separate stockmarket listing.

There is a slim chance politicians will manage to derail the technocratic process. No explicit threats or promises have been made yet, but Ms Vestager is sometimes touted as a new head of the European Commission later this year, a position for which German and French support would come in handy. More immediately, she will need her 27 fellow European commissioners to approve whatever decision her staff arrives at. This is usually a formality, but lobbying for the deal—and against Ms Vestager's dogged adherence to the rules-based system—will go on until the last minute. ■

Bartleby Woke, not broke

Companies can appeal to workers and consumers with liberal messages

ARGUING THAT men should refrain from bullying and sexual harassment does not seem terribly controversial. But a new advert from Gillette, a razor firm, recently achieved its 15 minutes of viral fame by taking a stand against "toxic masculinity".

Of course, encouraging a few conservative commentators to blow their top was probably part of Gillette's strategy. Its gamble was that the free publicity from the controversy would more than offset any lost sales to men who wanted a razor rather than a lecture.

A similar bet worked for Nike last year when it unveiled an ad featuring Colin Kaepernick, a quarterback who lost his job after kneeling during America's national anthem as a way to protest against police racism. A few conservatives burned their Nike shoes in protest. But the company's share price quickly rebounded and Nike's sales rose as millennials showed they were more than happy to buy footwear that attracted the opprobrium of President Donald Trump.

Nike's customers may be more accustomed to politically tinged marketing than those of Gillette. The sneaker firm has tried hard to enhance its image after being caught out by criticism of its labour standards at suppliers in Asia in the 1990s and early 2000s. Taken together, the campaigns are part of a phenomenon dubbed "woke capitalism", in which companies try to associate themselves with liberal social values. It may well be that executives genuinely do agree with such sentiments. But it is also about positioning brands with millennial consumers (those who reached adulthood after 2000) who often have more freewheeling views than their elders.

"A younger generation of consumers is seeking products that are aligned with

their causes," says Renee Richardson Gosline of the MIT Sloan school of management. Patti Williams of the Wharton School at the University of Pennsylvania agrees that consumers expect brands to share their values, and not only represent the best value and utility.

By the same token, companies also want to recruit workers from the same generation, which also means appealing to their values. "Young people don't want to work for a company if it is seen as harmful to the environment or society," says Jaideep Prabhu of Cambridge University's Judge Business School. They want to be proud to say where they work.

Big firms have in the past shown social awareness. In 1969, at a time of high racial tensions, Coca-Cola ran an ad called "Boys on a Bench", which showed black and white youngsters sitting together, enjoying the fizzy drink. What gave the ad extra bite was that segregation had only just ended in the southern states; previously the kids could not have gathered together. Coke followed this with its famous "I'd Like to Teach the World to Sing" ad portray-

ing multiracial harmony.

Those adverts were rather more subtle than the modern examples. But firms are once again being pushed into the political forum because America's "culture wars" cover many issues that affect the workplace. Larry Fink of BlackRock, a giant asset manager, wrote in his latest annual letter to chief executives that "society is increasingly looking to companies, both public and private, to address pressing social and economic issues. These issues range from protecting the environment to retirement to gender and racial inequality."

It is also worth remembering that firms have long been part of the political process through carefully co-ordinated, expensive lobbying campaigns. Last year, for example, eight firms including Alphabet (Google's parent) and Amazon each spent over \$10m lobbying America's Congress, according to *OpenSecrets.org*, a website. If firms can push a conservative, low-tax-and-regulation message, why not a socially progressive one?

Lower taxes and less red tape usually mean higher profits, of course. Shareholders will need to be convinced that woke capitalism can do the same. Clearly, brands can benefit over time. A survey by Morning Consult of 2,201 consumers found that the proportion who felt the Gillette brand shared their values rose from 42% to 71% after seeing the firm's ad. And, as Ms Gosline notes, Gillette is facing a lot of low-cost competition. Positioning the brand as "more than just a blade" may be a wise business move, she says. Harry's, a rival, had already come out with a report on modern masculinity late last year. Selling razors is a cut-throat business.



Data protection

Opening salvo

The latest decision against Google by a French regulator is the start of a war

THE PRIVACY wars have begun in earnest. On January 21st France's data-protection regulator, which is known by its French acronym, CNIL, announced that it had found Google's data-collection practices to be in breach of the European Union's new privacy law, the General Data Protection Regulation (GDPR). CNIL hit Google with a €50m (\$57m) fine, the biggest yet levied under GDPR.

Google's fault, said the regulator, had been its failure to be clear and transparent when gathering data from users. Signing up for a Google account on an Android phone means navigating a sea of documents eight-clicks-deep to understand what data about you Google is collecting.

So far, so technical, but the bigger picture is what matters. The fine represents the first volley fired by European regulators at the heart of the business model on which Google and many other online services are based, one which revolves around the frictionless collection of personal data about customers to create personalised advertising. It is the first time that the data practices behind Google's advertising business, and thus those of a whole industry, have been deemed illegal.

Google says it will appeal against the ruling. Its argument will not be over whether consent is required to collect personal data—it agrees that it is—but what quality of consent counts as sufficient. It will be an argument about the placement of tick-boxes on web pages and the size of fonts in terms-and-conditions documents. This nitty-gritty of GDPR, the legal semantics of phrases like “informed consent”, will be decided through the courts, where GDPR will go from theoretical legislation to practical rules for running a digital empire.

This arcane wrangling will be important enough to the digital economy's operation that the CNIL's decision is likely to end up at the EU's top court, the Court of Justice in Luxembourg. Google has already challenged one CNIL ruling, on the right to be forgotten, which obliges it to scrub some personal data from its services (the outcome of the tech giant's appeal has not yet been decided).

All European regulators will need to tread carefully. For one thing, they face accusations of using GDPR to bash American technology companies partly out of envy at not having created any such giants themselves. Criticism along those lines was

slung at the CNIL decision as soon as it was announced. An obvious way to avoid it would be to apply the same level of scrutiny to European adtech companies, of which there are plenty.

They must also avoid chasing only the biggest firms, despite the headline-generating potential. There are questions for the entire adtech ecosystem under GDPR, not just the Silicon Valley giants. The CNIL signalled that it will apply its regulatory power broadly when it fined an obscure French adtech company called Vectaury in October. Up to now the rules that underpin the digital economy have been written by Google, Facebook et al. But with this week's fine that is starting to change. ■



Huawei

Cold-shouldered

The Chinese tech giant is increasingly beleaguered in the West

ON PAPER, AT least, Huawei is having a barnstorming time. The company, which is owned by its employees, makes everything from smartphones to solar panels and telecommunications equipment. It reckons its revenue in 2018 will hit \$109bn, up by 21% on the year before and almost three times higher than it was in 2013. It has recently overtaken Apple as the world's second-biggest seller of smartphones. Engineers at telecoms firms say that its back-end kit, used to run computer and mobile-phone networks, is as good or better than the stuff provided by Ericsson and Nokia, from which it has gobbled market share. A wedge of juicy new business looms, as the telecoms industry plans to roll out speedy fifth-generation (5G) phone networks over the coming years.

Yet the firm also looks beleaguered, at least in the West, where criticism is grow-

ing louder. America is seeking the extradition of Huawei's chief financial officer, Meng Wanzhou—daughter of its founder, Ren Zhengfei (pictured)—who was arrested in Canada on December 1st. America alleges that she used a Huawei subsidiary to dodge American sanctions on Iran.

Another of the firm's executives, Wang Weijing, was arrested on January 11th in Poland, along with a Polish citizen. The authorities accuse both of espionage. Huawei is already frozen out of the 5G market in America and Australia. Allies of America, such as Germany and New Zealand, have begun airing public doubts of their own. The University of Oxford has even said it will stop accepting money from the firm, which funds technological research in universities around the world.

Western distrust is not yet universal. Huawei recently signed a 5G deal in Portugal with Altice, a Dutch telecoms firm, for example. Several British firms, including Vodafone and O2, are testing its 5G gear.

America contends that Huawei's kit exposes countries to Chinese spying or even to cyber-attacks that could bring down phone networks or other bits of important infrastructure. Huawei has repeatedly denied this. It fired Mr Wang after his arrest, and said his actions did not involve the company. It has pointed out that no evidence has ever been found that its products have been subverted. Mr Ren said on January 15th in a rare interview that, despite his prior service in the Chinese army and membership of the Communist Party, he would “definitely” refuse if China's government demanded data from the firm.

It is hard to see how any amount of public reassurance can help, since Huawei has got caught up in Western worries about China's geopolitical clout. Nor are fears about espionage mere paranoia. A Chinese law passed in 2017 could force Mr Ren to comply with a spying request.

Huawei has options. Its chairman, Liang Hua, said at the World Economic Forum in Switzerland this week that if the chill continues it might shift its geographic focus; previously Huawei had insisted it would fight to keep all important markets. There is still plenty of room for growth in India, where Huawei has already conducted 5G trials, and the rest of Asia, as well as Africa and South America. Its home market is enormous, and is predicted to dominate investment in 5G for the foreseeable future.

But the biggest risk for Huawei goes beyond individual markets. It is heavily reliant on American and British chip designs, and also on Taiwan's expertise in advanced chip-making. Some American politicians are pressing for legislation to ban American companies from selling to Huawei if it is found guilty of sanctions-busting, which would be crippling. Technological prowess is no defence against politics. ■

Ofo

Kicking the wheels

SHANGHAI

Lessons from the fall of China's bike-sharing pioneer

WHEN EVERY colour had been claimed by rival bike-sharing firms, Qicai Bike (or “seven colours”) went for the whole rainbow. Onto these flashy frames it fixed glow-in-the-dark wheels, hoping perhaps for a night-time edge over competitors. Launched in June 2017, Qicai's dockless bicycles joined those of over 70 other bike-share startups in Chinese cities, unlocked and paid for with a QR code through smartphone apps.

Yet it seemed clear by then that it was a two-bike race—a configuration typical of China's feverish entrepreneurial battles. That same summer, Ofo, started by students at the elite Peking University in 2014, wheeled its dockless, buttercup-yellow bikes onto the Tibetan plateau, making Lhasa its 100th city. Its main competitor, Mobike (orange and silver), raised over \$600m, the largest single dollop of funding in bike-sharing anywhere, in a round led by Tencent, a social-media giant. Each startup was valued at a fizzy \$3bn or so.

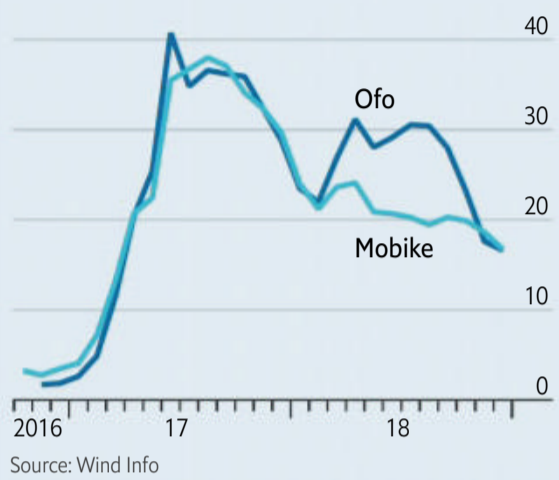
Now Ofo is languishing. Lawsuits over bills it has failed to pay have multiplied, from bike manufacturers, locksmiths and logistics firms. Last month a court placed its 27-year-old founder, Dai Wei, on a credit blacklist, prohibiting him from staying in fancy hotels or flying first-class. He and his firm owe suppliers at least 194m yuan (\$28.6m). Recently 12m-odd app users waited for deposit refunds in a virtual queue. In a letter to staff, Mr Dai wrote that he had considered bankruptcy. This month Ofo dissolved its international unit, which had sent fleets into 20 countries, from Mexico to Malaysia.

What went wrong? To observers of China's tech-economy contests, the bike-sharing sprint seemed to fit a pattern. Big spending by Ofo and Mobike fuelled a turf war that colonised cities with their bikes, seducing venture-capital firms. A half-hour ride costs just 1 yuan, or 15 cents. The model quickly won users. The business was loss-making, depressed by a subsidy war, but this has been the case for ride-hailing and food-delivery apps, too.

Ofo and Mobike pulled ahead, winning a combined market share of 90%, estimated Counterpoint, a research group. Most tag-alongs folded, in a process reminiscent of the “Thousand Groupon War” waged by Chinese clones of the deal-sharing service, which left just one battle-hardened winner, Meituan. It is now valued at \$30bn, do-

Oh no Ofo

China, monthly active users, m



ing food delivery, travel booking and much else. Last April it acquired Mobike, relieving the startup of its own financial worries. At the time Mobike was losing close to 16m yuan a day, based on Meituan's filing documents. On January 23rd Meituan announced it would soon be renamed Meituan Bike, and available within its app only.

Spoke too soon

Ofo had the requisite backing of powerful firms too: Xiaomi, a smartphone maker, Didi Chuxing, a rideshare app, and Alibaba, an e-commerce titan. Ofo's woes, reckons Jeffrey Towson of Peking University, crystallised when Didi invested in its own bike service, and Alibaba backed HelloBike, a small up-and-comer—meaning that for Ofo, “the big dance partners were gone”. Unusually, a merger of giants was resisted.

Hubris and overreach were evident, es-

pecially at Ofo. It raised seven rounds of funding in the space of 18 months, receiving \$2.2bn in total. Local media cited insiders who said Ofo had more money than it knew what to do with. It was said to have spent 10m yuan for Lu Han, a Chinese pop star, to promote its bikes.

One of Ofo's suppliers, Flying Pigeon, an 80-year-old bike manufacturer in Tianjin, perceived that its big customer was going too fast. Ofo was ordering 600,000 bikes a month. It had asked for 1m, but Flying Pigeon refused, according to a former senior employee. “I thought they were out of their mind,” he says. An Ofo bike rolled off the production line every 15 seconds.

Theft and vandalism hurt all firms. Another startup, 3vbike, shut after almost all its 1,000 bikes were stolen. Cities grew tired of pile-ups clogging streets. Twelve barred new bikes, including Beijing, Shanghai and Shenzhen, in August 2017, and began to ban ads on them. Profits from geolocation data remain elusive.

Against such headwinds it has been a surprise to see a new challenger ascend to third place behind Ofo and Mobike. HelloBike recently raised 4bn yuan, some of it from Alibaba's Ant Financial, but is showing signs of being more disciplined. In late 2017 it merged with a peer, and claims to have bikes in 300 Chinese cities (it has no plans for overseas expansion). A co-founder, Li Kaizhu, says it was wrong to compare shared-bike services to food-delivery and ride-hailing. The former require far larger sums to be invested to win turf wars, which can lead to oversupply and waste.

HelloBike's late entry let it become known in big cities with only about a third as many bikes as Ofo and Mobike deployed at their peak. It claims it will be profitable this year, mostly from 1-yuan rides. Two-fifths of these are in lower-tier cities with little competition, which has allowed it to avoid subsidy wars. But the firm has swagger, suggesting it might still get ahead of itself: “If an acquisition happens,” says Mr Li, “we will be the ones devouring others.” ■



Vicious cycle

Schumpeter | A topsy-turvy world

As retailers abandon the high street, why is IKEA moving in?



TOTTENHAM COURT road is a little-loved street of furniture stores in central London, made even more drab by boarded-up shops and SALE signs plastered across the windows. But since October a new type of outlet has brought in some Lewis Carroll-like magical realism. Through vast glass windows, passers-by gaze in on a kitchen so tall it looks like part of Wonderland. Inside are no tills; indeed nothing is sold there. It belongs to IKEA, a Swedish furniture retailer, which also seems topsy-turvy; IKEA is famously a staple of suburbia.

It may seem as if Alice has stepped through the looking-glass. But there is method in the madness. As other retailers are driven off the high street, partly because of competition from big-box stores like IKEA, the company is heading into the heart of London, Paris and New York as part of an expansion into 30 city centres. It is not only examining where it puts its shops. Though IKEA woke up late to the importance of e-commerce, it is using the shock as an opportunity to rethink its business model; the internet will become more central to its future. Many of its competitors still see digital commerce as just one retail channel among many. They are making a big mistake. Unless they face reality, more will join the ranks of struggling retailers such as Sears, JC Penney and Macy's in America, and Debenhams in Britain—especially if consumer spending turns down.

Retailing is not an industry prone to reinvention. Far from it. As Mark Pilkington, a former lingerie executive, explains in a new book, "Retail Therapy", its two great innovations happened long ago, when shops grew into supermarkets, department stores and malls, and when merchandise moved out from behind the counter. The big stores became vast distribution systems, benefiting from oodles of capital and high barriers to entry. Meanwhile, customers bought the merchandise and walked out with it; the retailer saw little reason to engage with them beyond advertising and pretending to listen to their complaints.

E-commerce has upended this arrangement. Strip out items that are not widely bought online, such as cars, fuel and meals, and the internet's share of total retail sales last year rose above 17% in Britain, 16% in America and 15% in Germany, according to the Centre for Retail Research, a British consultancy. Above 15%, says Mr

Pilkington, is the point at which legacy retailers, with their high cost of stores and staff, struggle to survive, posing huge risks to jobs, the commercial-property business, lenders and investors.

Not bearing such costs or capacity constraints, e-retailers can offer a wider range of goods, at better prices, with a more personalised, data-driven service. E-commerce also changes the distribution system. Retailing used to be cash-and-carry, with shoppers taking their merchandise home with them. Now they often travel by different routes, unencumbered by shopping bags. So in addition to sales, retailers have to factor in delivery. That is where IKEA is devoting lots of attention.

Though Tolga Öncü, IKEA's head of retail, explains this with a wad of Swedish *snus*, or smokeless tobacco, beneath his upper lip, he appears more excited than nervous about the transition. The company's strong brand and balance-sheet give it freedom to have a "test-and-fail" approach, rather than "being in a panic to do something", he says. It has three big tasks ahead: redefining sales measures, logistics and the whole concept of the store.

Start with sales measures in stores. These will remain crucial; online sales make up at most 10% of the total, and stores are still the best way of attracting customers. But the idea that IKEA's success can be measured only by how much it sells per square foot is outdated. As it ships more of its products to people's homes, it has to bear in mind online purchases, delivery and assembly. In 2017 IKEA bought TaskRabbit, a gig-economy startup that can spare customers the grief of assembling furniture with an Allen key and a wordless instruction manual. Logistics is another factor. As people shop online, they demand speedy delivery. Part of this comes via IKEA's stand-alone warehouses. But Mr Öncü says its large suburban stores, which are within easy reach of densely populated areas, can also "double up" as part of the logistics network, shortening delivery times.

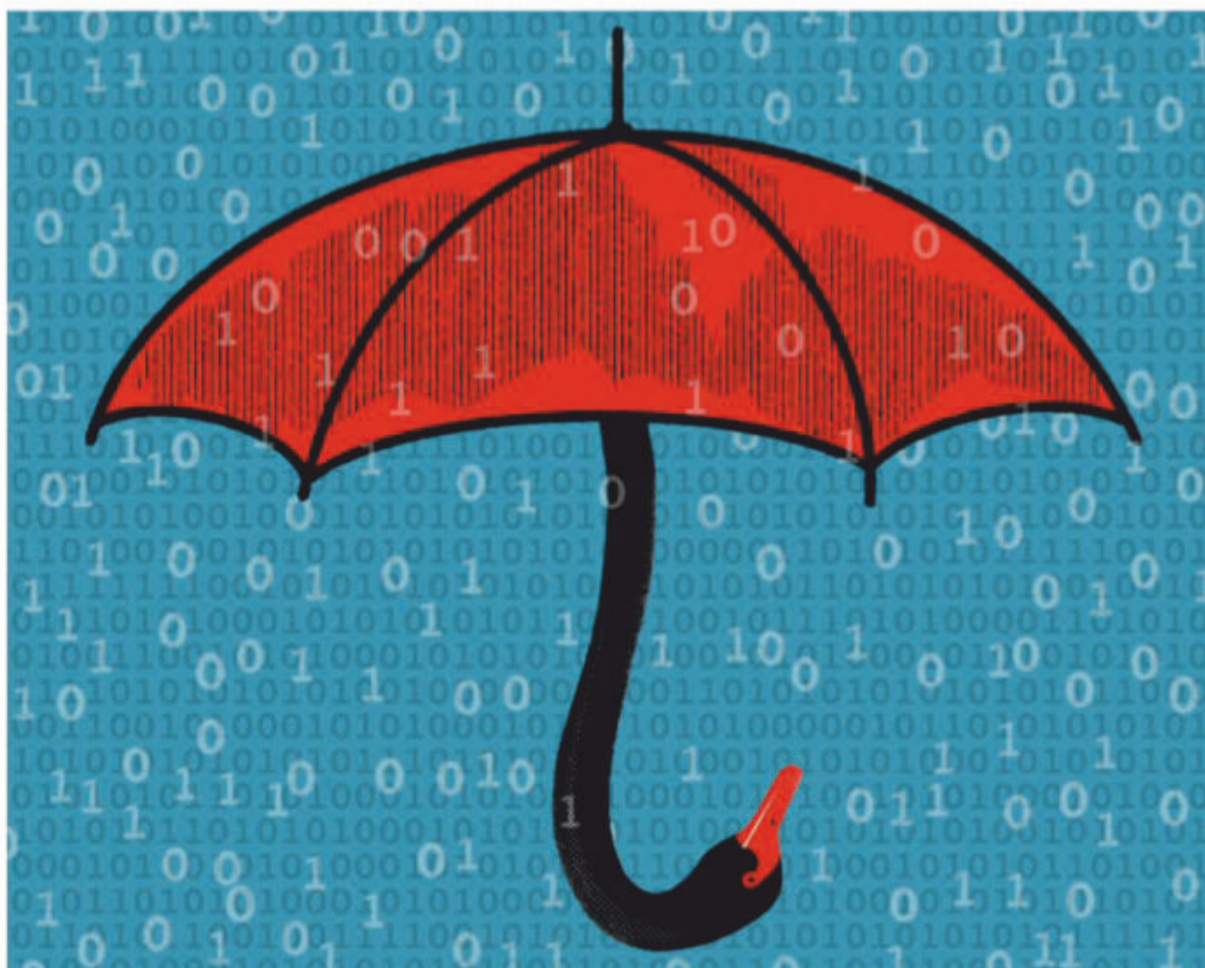
This feeds into the third challenge—changing the purpose of the store. Rather than always stocking the full range of products, the priority in smaller stores is to allow customers to "touch and feel" items they have seen online. That means stores can keep less inventory. Meanwhile, space is freed for displays of kitchens and other rooms, with staff on hand to offer home-furnishing advice.

This switch to more personalised service will be particularly evident in the city centres. In Tottenham Court Road, the outlet is a "planning centre", where no money or goods change hands. This is aimed at online shoppers who need humans to talk to about design without having to travel to suburbia. This spring IKEA will open a different type of store in Paris, selling goods across a fairly small floor space. Its aim will be to attract local visitors more frequently, offering frequent range changes, fresh food and events.

Change everything, except the meatballs

Both store formats respond not just to online pressure, but to generational trends like urbanisation, demand for sustainability and reduced car use. IKEA is lucky. Shoppers already treat going to its stores as an "experience"—albeit not one for all tastes. In an online world, it is vital to build on this to keep customers interested.

IKEA is by no means safe. Its recent results show falling profits as it invests in new formats, but at least it has lots of cash on its balance-sheet. Others have less freedom to experiment, especially retailers who have overexpanded, been leveraged to the hilt by private-equity owners, and paid dividends out of sale-and-leaseback property deals that expose them to rising rents. Many are only just realising that their business model is bust. It may be too late. ■



Cyber-insurance

Black swans and fat tails

Demand for cyber-insurance is growing fast. Satisfying it will pose great challenges for insurers

IT SOUNDS AS if it was named by a seven-year-old boy and looks like a film set. Housed in a sleek black truck, IBM's "X-Force Command Cyber Tactical Operations Centre" travels from city to city, simulating the experience of falling victim to a cyber-attack. Rows of desks sport monitors and keyboards in a room dominated by three giant video-screens. A control room houses server equipment that allows IBM's staff to simulate a corporate network—and then throw all manner of digital mischief at it. Teenagers "understand what's going on straight away", says Caleb Barlow, who runs the show. Board members at big companies enjoy a visit, too: "It's so different from what they usually do."

But their interest is not merely recreational. Companies are increasingly worried about the threats lurking in their computer systems. A survey in 2018 by KPMG and Harvey Nash, a firm of headhunters, found that only a fifth of IT bosses thought their firm was well prepared for an attack.

That gloomy assessment is borne out by high-profile hacks. In November Starwood, a hotel chain owned by Marriott International, reported that half a billion customer records had been stolen. Mage-

cart, a hacker group, is the chief suspect in the theft of the credit-card information of customers of Ticketmaster, an American firm, Newegg, a computer retailer, and British Airways. In 2017 WannaCry and NotPetya, two malware programs, scrambled files in organisations across the world. Maersk, a Danish shipping firm, said it had suffered costs of \$300m. Snafus can be as damaging as attacks. In April TSB, a British bank, botched a computer upgrade and locked millions of customers out of their accounts.

Such mishaps are feeding a fast-growing market for specialist cyber-insurance. Solid numbers are in short supply, but Munich Re, a reinsurer, reckons that a market that wrote \$4bn of premiums in 2018 could be writing \$8bn-9bn by 2020. Rob Smart of Mactavish, a firm that works with big British insurers, says that "almost all" the firms' clients have inquired about cyber-insurance in the past couple of years. Insurers are scrambling to hire scarce specialists. Two former directors of GCHQ, Britain's electronic-spying organisation, have found jobs advising the industry.

The market is most developed in America, says Robert Hannigan, one of those ex-

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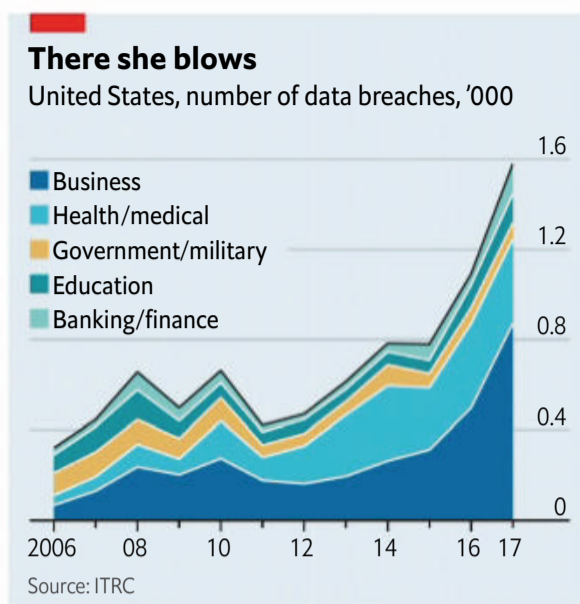
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GCHQ bosses, thanks in part to Californian laws passed in 2003 that compel firms to confess to large data breaches. These have been copied by other states. But Europe is catching up, says Joseph Ahern of the Association of British Insurers, partly because of privacy and reporting laws that are now stricter than America's. The need for robust insurance will only grow as companies become more reliant on computers, hackers get more cunning and regulators take an increasingly dim view of lax security. But the unique nature of cyber-risks makes them hard for the insurance industry to handle. In the worst case, they could blow up the nascent market altogether.

The policies on offer so far tend to vagueness, says Mr Smart, and vary widely regarding which risks are covered. That makes companies skittish, he says, and some big clients have decided not to buy insurance as a result. As the industry matures, no doubt policies will become clearer and more standard. But other problems are potentially longer-lasting.

That of working out who was behind a particular hack has already made the news. Mondelez, an American food company hit by the NotPetya malware, is suing Zurich, a big insurance firm, for refusing to pay out under a general insurance policy. Zurich cites an exclusion clause for losses related to war, on the ground that the NotPetya attack is thought to have been carried out by Russia. Even a technologically sophisticated government would have trouble proving such a claim to the standard demanded by a court, says Andrew Coburn of Risk Management Solutions, a consultancy. But if ►



► Zurich does win, it could cast a chill across the entire market—unless insurers accept that cyber-insurance may involve shouldering the sorts of risks they have previously sought to avoid.

At the same time, cyber-security risks are inherently tricky to price. All software contains bugs, some of which will cause security weaknesses. But many lurk unknown until a hacker starts exploiting them. Cyber-risks are so new that insurers have only limited data, and the pace of technological change means that what they have quickly goes stale. “In a flood, we know the ways in which water can damage things,” says Shannan Fort of Aon, an insurance broker. “And that’s not likely to change in the next five to ten years. But the way we use technology has changed fundamentally just over the past decade.”

Perhaps the biggest difficulty for insurers is that the risks posed by cyber-attacks are not independent of each other. If an oil refinery in Texas floods, that does not mean one in Paris is any more likely to do so. Insurers build that independence into their risk models, and depend upon it in their calculations of the maximum they may have to pay out in a single year. But a newly found flaw in software can make all users vulnerable simultaneously. Insurers fret that a single big attack could hit many of their clients at once. In the worst case, the value of claims might be more than they could meet.

The WannaCry malware of 2017 illustrates the point. Armed with a software vulnerability stolen from the National Security Agency, GCHQ’s American counterpart, it infected a quarter of a million computers in 150 countries in just a few days. Its spread was slowed only by luck. Marcus Hutchins, a security researcher later arrested on an unrelated matter, gained access to the malware’s control system that allowed him to shut it off. Whether the industry can figure out a way to deal with such “risk aggregation” is an open question. As one insider says, it “sort of breaks the whole concept of insurance a bit”. ■

China's economy

Slowness is in the eye of the beholder

SHANGHAI

Headlines about China's weakest growth in 28 years are accurate but misleading

AMERICA'S PRESIDENT KNOWS a catchy number when he sees one. Like much of the world's media, Donald Trump tweeted this week that China's growth in 2018 was its slowest in nearly three decades. This, he said, ought to compel it to make a “Real Deal” on trade with America. China's growth of 6.6% last year was indeed the weakest since 1990, and the country does want to end the trade war. But a closer look at the data shows why its leaders are less panicked than Mr Trump might think.

First, the sheer size of its economy means that China's growth last year generated a record amount of new production. Nominal GDP increased by 8trn yuan (\$1.2trn), well above the 5.1trn yuan added in 2007, when it notched up 14.2%, its fastest growth in recent decades. The point is simple: China is now growing from a much larger base. But this was overlooked in the flurry of headlines about its slowdown.

The changing nature of China's growth also provides some cushioning from the trade war. American tariffs are starting to inflict pain: Chinese companies have reported a sharp drop in export orders. But for the broader economy, foreign sales matter less than they used to. Although the falling trade surplus lopped half a percentage point from the growth rate last year, domestic demand more than plugged the shortfall (see chart). Consumption accounted for three-quarters of the growth rate last year, the most since 2000.

Finally, China has made modest progress towards cleaning up its financial system. The government had sought to rein in debt, which had soared over the past decade. Critics have observed that it has failed

to bring about any real deleveraging, because debt-to-GDP levels have continued to creep up. But stabilisation, rather than outright deleveraging, was China's real goal. It has had some success: the pace of debt accumulation has slowed sharply. In 2015 it took more than four yuan of new credit to generate each yuan of incremental GDP. In 2018 that multiple fell to 2.5, in line with China's average over the past 15 years.

Alongside these positives, however, there were some worrying signs. Nominal growth has slowed significantly, from an annual rate of 11.2% in the third quarter of 2017 to 8.1% in the final quarter of last year. It will slow further this year as inflation decelerates. Since nominal growth is closely correlated with corporate revenue growth, companies could be in for a difficult year.

As for consumption, this year looks less promising than last. Companies have started cutting back hiring and incomes are growing more slowly, weighing on consumer sentiment. The middle three quintiles of China's population by income distribution saw earnings increase by only about 2% last year in real terms. Those of the richest quintile rose by 6.6%. Given that lower earners tend to spend more of their wages than the rich do, that is a poor basis for sustained growth in consumption. Sales of cars fell last year for the first time in more than two decades. Sales of mobile phones were also sluggish.

China has already pivoted towards more supportive economic policies. It has sped up spending on infrastructure, trimmed income taxes and relaxed some restraints on bank lending. This does not add up to a big stimulus package, but the direction is clear. If growth slows further, as seems likely, the government will move more boldly still.

There is no doubt that China would like to persuade Mr Trump to roll back tariffs on Chinese goods, which would both help its exporters and boost market sentiment. Bilateral talks are grinding on ahead of a March 1st deadline. Chinese negotiators are working on an offer they hope will satisfy their American counterparts, combining pledges to buy more American goods with reforms to treat foreign companies more fairly. But if Mr Trump truly believes what he tweets about the Chinese economy, he is at risk of overestimating the strength of America's hand. China wants a trade deal, certainly, but it is not desperate. ■

Bags of growth

China, contribution to GDP growth
Percentage points



Monetary policy in Africa

The winding road

KAMPALA

The continent's central bankers have become more orthodox. But their task has not become much easier

FOR MORE than a month protesters in Sudan have defied tear-gas and bullets to demand the resignation of Omar al-Bashir, the president. The unrest began with demonstrations against soaring food prices; inflation is above 70%. There is turbulence, too, in Zimbabwe, where the central bank's "bond notes", a kind of local dollar, are reviving memories of hyperinflation. Protests broke out on January 14th after the government raised fuel prices. The crackdown was lethal and swift.

Such crises grab headlines. But they obscure a big shift. In Africa, as in advanced economies, inflation has fallen over the long term. In the 1980s a fifth of countries south of the Sahara endured average annual inflation of at least 20%. This decade only the two Sudans have (the rate in Zimbabwe is tricky to measure). Runaway prices are now the exception, not the rule.

African countries took different routes to orthodoxy. Inflation is rarely a problem for the 15 in west and central Africa with currencies pegged to the euro. They have imported central-bank credibility from Europe. Elsewhere, monetary policy was reformed in the 1990s under the guidance of the IMF. Governments gave more independence to central banks. Some let exchange rates float. And they stopped printing so much money. In the 1990s central banks in sub-Saharan Africa printed money worth 12% of GDP a year to help finance governments; by 2015 that had fallen to 3%.

But African central bankers still have a harder task than their rich-world counterparts. Two-fifths of the consumption baskets used to calculate inflation in the region consist of food; for rich countries the average is 15%. When rains fail, food output declines and prices surge. Shocks come from abroad, too, when currencies tumble or import prices spike. High inflation often used to stem from macroeconomic indiscipline. Now, though inflation is in single digits, its trajectory can be harder to control. Pricey power and inefficient farms make inflation hard to cut, says Ernest Adison, the governor of the Bank of Ghana.

Supply shocks also create a nasty trade-off for monetary policy. In the rich world volatility is often caused by shifts in demand. If the government spends more, that both stimulates output and leads to higher prices. In Africa, by contrast, frequent squeezes on supply mean that inflation and output move in opposite directions. A



drought may push up prices while shrinking production. That can mean central banks have to tighten when the economy is in a trough.

In most of Africa, markets for stocks and bonds are small. Only a fifth of firms have access to a bank loan or formal credit. Monetary policy therefore has a limited impact on financial conditions, and takes effect slowly. It works partly by nudging banks to lend more (or less). An IMF study finds that this effect is only half as strong in Uganda as it is in advanced economies.

Many countries in the region still set targets for growth in the money supply. But financial innovations such as mobile money mean that the rate at which money changes hands has become unpredictable, snapping the link between monetary aggregates and inflation. Central banks often miss their targets, in ways that can be hard to decipher. They might do better to focus on an explicit inflation target, using interest rates as their main tool. That is easier to communicate to the public, so has more effect. Some countries, including Ghana and Uganda, have already made this switch.

Some worry that too narrow a focus on prices could stifle development. The typical inflation target in Africa is around 5-8%. Yet studies find that inflation starts to drag on growth in poor countries only when it hits 15-20%. Some economists therefore urge a more flexible approach that places greater weight on other objectives, such as job creation.

Take the example of Uganda, which has a notoriously hawkish central bank. In

2011, as commodity shocks and an election pushed inflation to 25%, it raised its main interest rate by ten percentage points. Traders shut up shop; businesses laid off workers. The bank was using a hammer to kill a mosquito, says Ramathan Ggoobi of Makerere University Business School. But high inflation helps nobody, retorts Adam Mugume, the head of research at the Bank of Uganda. Constraints such as bad roads and rain-dependent farms limit economic growth to around 6%; above that, the economy overheats and inflation rises.

Debate about central-bank objectives is healthy. In other ways, however, politics is less helpful. One problem is new laws, such as a cap on commercial-lending rates imposed by the Kenyan parliament in 2016. The move infuriated the country's central bank, which complains that monetary policy has become less effective as a result. Another political headache is banking supervision, which is typically done by central banks. The Bank of Uganda is mired in lawsuits and official probes after some controversial bank closures.

Politics also intrudes in a third way: public debt. Many countries' borrowing has risen sharply in the past decade. Last year the region's median fiscal deficit was 3.5%, including foreign grants. That revives pressures to turn on the printing presses. All told, there is "growing concern" about African banks' hard-won autonomy, says Benno Ndulu, a former governor of the Bank of Tanzania. That is a shame. Their task is hard enough as it is. ■

Benchmark interest rates

Reference point

LIBOR looks doomed. Its administrator proposes an alternative standard

IN THE FINANCIAL world, LIBOR is a staggeringly important number. The London Interbank Offered Rate—supposedly the rate at which banks can borrow unsecured from one another—is the benchmark for interest rates on around \$260trn-worth of derivatives, loans and more. Over \$200trn-worth is in dollars. But the number's number is up. An ever-thinner underlying market and a rate-fixing scandal have prompted regulators to seek replacements. Britain's Financial Conduct Authority has told banks that they need no longer supply estimates of their borrowing costs, on which LIBOR is based, after the end of 2021. Regulators everywhere would like markets to switch to overnight interest rates.

In a paper due to be published as *The Economist* went to press, ICE Benchmark

Administration (IBA), which has produced LIBOR since 2014, says that overnight rates are widely accepted to be well suited to derivatives, which make up the vast bulk of LIBOR-pegged products. But it sets out an alternative that it thinks may be a more fitting substitute in pricing loans. Loans make up a small share of the LIBOR universe, but that is still a large sum. At the end of 2016 between \$4trn- and \$5trn-worth of American mortgages and business loans had interest rates linked to dollar LIBOR.

The great advantage of overnight rates lies in the sheer volume of transactions on which they are based. The Federal Reserve, for example, favours the Secured Overnight Financing Rate (SOFR) as a replacement for dollar LIBOR. SOFR measures the cost of borrowing cash overnight using Treasury securities as collateral. Lately volumes have been around \$1trn a day. By contrast, the world's 30 "globally systemically important" banks raise more than \$1bn in unsecured one-month and three-month funding on only about one day in two, according to the Alternative Reference Rates Committee, a group convened by the Fed to identify a LIBOR substitute. Some banks' reports to IBA of their borrowing costs are merely their best guesses.

IBA's paper points out that overnight rates lack two of LIBOR's useful features. First, whereas LIBOR reflects banks' unsecured funding costs, overnight rates like SOFR are virtually risk-free. Second, overnight rates by definition lack forward-looking term structures—the cost of borrowing for the next three months, say—although regulators are looking into ways of devising them. With LIBOR, term structures are built in. A company with a loan pegged to three-month LIBOR fixes its interest payments three months in advance.

All this might not matter much if the two moved in near-lockstep: banks and borrowers could simply replace LIBOR with SOFR and adjust the markup. But between mid-2014 and mid-2017 the premium of three-month dollar LIBOR over an average of SOFR ranged from about five to 50 basis points (hundredths of a percentage point). In a crisis overnight rates might fall as investors run for safety, even as banks' unsecured funding costs go up. Oliver Wyman, a consulting firm, has calculated that in 2000-17 the gap between three-month LIBOR and a proxy for SOFR averaged 36 basis points, but spiked to 460 points in 2008.

Unlike LIBOR, the proposed new benchmark, the ICE Bank Yield Index (IBYI), is based wholly on transactions. It uses two types: international banks' unsecured funding rates in the primary market (commercial paper, institutional certificates of deposit and interbank funding); and yields on banks' bonds of various maturities, implied by trades in the secondary market. Banks have increased their use of the bond

market since the financial crisis.

IBA uses a least-squares regression to estimate a daily yield curve from those data points, showing the rate at which the average bank can expect to raise unsecured funds for different periods. (It gives primary sales, which average \$94m each, a much bigger weight than the secondary deals, which average just \$3.2m.) One-, three- and six-month benchmark rates can be read from the curve.

IBA has calculated a preliminary version since the start of 2018, drawing on about 50 primary transactions and 100 bond trades a day. The one-month IBYI averaged 2.03%, just a basis point below LIBOR; the three-month rate, at 2.29%, was three points below. Although IBYI and LIBOR tracked each other fairly closely, outliers in the data caused a couple of gaps of 10-20 points. One question IBA poses is whether to exclude outliers. Since banks

and borrowers value stability (and IBA already discards the highest and lowest few rates reported by banks before calculating LIBOR) this makes sense. If the market likes IBYI, IBA expects to launch it in early 2020.

Of course, IBA has a commercial interest at stake. Market participants pay to use its benchmarks. Regulators will object that IBYI's transaction base is still only a tiny fraction of that for SOFR. It is untested by crisis. And lenders and borrowers will not be able to disconnect themselves from overnight rates entirely, if they want to hedge their interest payments.

Yet the index may be a decent answer to the question: what is a good benchmark interest rate for loans? It might even be a possible "fallback" rate for existing LIBOR-linked contracts, including some derivatives, after LIBOR's demise, soothing a severe legal headache. But these are matters for banks and borrowers to decide. ■

Italian banks

Stubborn blemishes

MILAN

Cleaning up bad loans is proving slow and painful

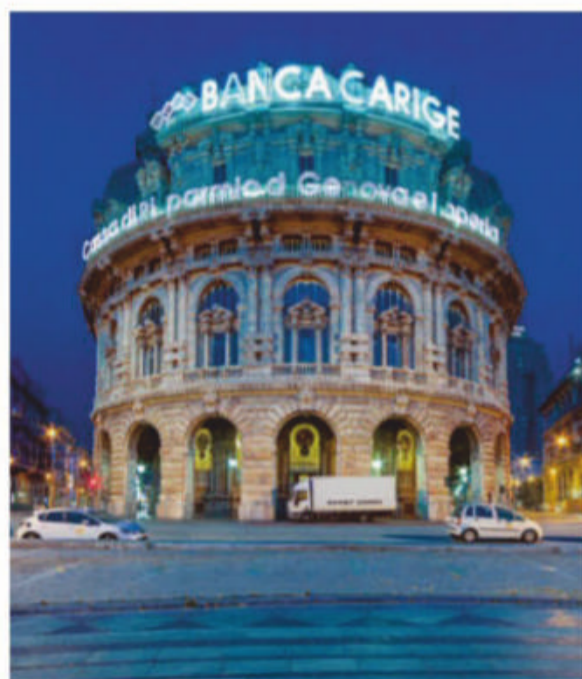
"THE BOILS that had to burst have burst," says Mario Deaglio, an economist at the University of Turin, of Italy's banks. The latest carbuncle to come to a head is Banca Carige, which was put into temporary administration by the European Central Bank (ECB) on January 2nd—the first time the euro-zone regulator has exercised this power. The move followed a shareholders' meeting in December that failed to approve the first tranche of a €400m (\$455m) capital increase.

The ECB appointed three administra-

tors, including Carige's former chief executive and chairman, giving them three months to reduce the €3bn stock of bad loans and arrange a merger. Italy's government issued a decree to guarantee the bank's bonds for up to €3bn, and to support a precautionary recapitalisation, if requested. On January 18th Banca Carige said it would issue government-backed bonds to the tune of €2bn, and perhaps a further €1bn. But it maintains that it will find a market solution. The administrators will present a business plan next month.

Banca Carige, Italy's tenth-biggest lender, has had a rocky time of it recently: an accounting scandal emerged in 2017 and it has gone through three bosses in as many years. Its latest troubles date from last autumn, when the ECB identified losses of €200m. Carige was required to shore up its capital or arrange a merger by the end of the year. Attempts to issue bonds on the market failed, and in November Italy's interbank deposit-guarantee fund, a voluntary scheme, stepped in to the tune of €320m. December's planned capital increase included converting those bonds into equity.

The rescue legislation bears a strong resemblance to that passed by the previous government in 2017 to save another troubled bank, Monte dei Paschi di Siena, Italy's fourth-biggest. But their situations differ markedly. Monte dei Paschi required a capital injection of €8bn; Carige's shortfall is ▶▶



Still standing

▶ €400m—€320m of which it has already.

That is a welcome sign of stabilisation, says Nicolas Véron of Bruegel, a think-tank in Brussels: “Three years ago, Italy was a textbook case of a zombie banking system.” Total bad loans, including those in delinquency and those classed as unlikely to be repaid, are down from a peak of €341bn in 2015 to €211bn last September. Sales of non-performing loans (NPLs) last year amounted to €66bn; Banca IFIS, a lender that is building a portfolio of bad debts, predicts sales of €50bn in 2019. A report by PwC, a professional-services firm, suggests that

this year could see the start of a market for unlikely-to-pay loans and growth in the secondary market for NPLs.

Monte dei Paschi di Siena, for its part, issued a five-year €1bn bond, guaranteed by residential mortgages, on January 23rd. Demand exceeded €2bn. Last year it disposed of bad loans with a face value of €24.1bn, but market volatility has made its turnaround trickier than had been hoped. This year it will have to present a plan for its re-privatisation to the ECB. It is supposed to be sold on by 2021.

Italy’s banks are still fragile. The stock of

bad loans remains high, profitability is low and banks remain highly exposed to sovereign debt even as national politics have become more tumultuous. More difficulties lie ahead, says Giovanni Razzoli of Equita, a bank. In Italy recession is looming, meaning appetite for mergers is likely to be low. The ECB’s targeted longer-term refinancing operations, which offered euro-zone banks cheap credit, are due to come to an end. And it wants banks to dispose of all bad loans by around 2025, sooner than had been expected. The scars of the banking crisis will be slow to fade. ■

Buttonwood Wizedened of Oz

Australia shows how an extended cycle leads to an over-extension of finance

THERE ARE TWO ways to film the banana-skin joke, said Charlie Chaplin. The first begins with a wide shot of a man walking down Fifth Avenue. Cut to the banana skin on the pavement. Go to a close-up as foot meets peel. Then pan out to reveal the man landing on his backside. Ha ha ha. The second version is like the first except in this one the man spots the banana skin and carefully sidesteps it. Blind to other hazards, he smiles to the camera—and immediately falls down an open manhole.

The second version is funnier, perhaps because it carries a deeper truth: a mishap avoided can lead to a greater calamity down the road. This seems to be a pattern in financial affairs. Japan dodged the banana skin of America’s 1987 stockmarket crash, only to disappear down a manhole a few years later. Emerging Asia brushed aside the Mexican crisis but imploded later on. Britain sailed through the dotcom bust in the early noughties, but was damaged by the subprime crisis.

This is why some analysts believe that Australia’s economy is overdue a fall. It shrugged off the global financial crisis (the GFC as Australians call it) of 2007-09. Indeed it has dodged recession for 27 years, making fools of forecasters. But it has paid a price. By extending its business cycle, it has over-extended its financial cycle. That in turn makes it more vulnerable when trouble strikes.

To understand why, first consider how exceptional Australia has been. Its economic cycle was broadly in sync with America’s until 2001. America slipped into recession. But in Australia a sharp reduction in interest rates by the central bank lit a fire under the housing market. The saving rate declined as consumer spending rose. GDP growth sped up even

as it fell in America.

When the GFC struck, Australia’s banks came through intact. Policymakers boasted that the steady profits from oligopoly (Australia’s “big four” accounted for 70% of banking assets) meant local banks could eschew the sort of risky lending that crippled those in America and Europe. A credit boom in China spurred a mining boom in Australia. When it ended in 2014, interest rates were cut and housing took off again.

Australia has not been left unmarked by these escapes. Its housing market is now one of the most overvalued in *The Economist’s* global house-price index. Household debt has reached 200% of disposable income (the comparable peak in America was 125% in 2007). The saving rate is skimpy. Ian Harnett of Absolute Strategy Research, a London-based consultancy, points out that wherever the value of the banking sector has risen above 20% of the overall equity market, trouble has been close behind (see chart). Others think Australia is due a “Minsky moment”, named after Hyman Minsky, a scholar of financial cycles, in which a debt mountain

collapses under its own weight.

House prices have been falling for a year, led by the markets in the big cities, Sydney and Melbourne, popular spots for global investors, notably from China. A clampdown on risky lending by bank regulators acted as a trigger. It seems Australia’s banks may not have been quite as conservative as previously advertised. The share of interest-only loans, favoured by speculators, was as high as 40% (it has since fallen).

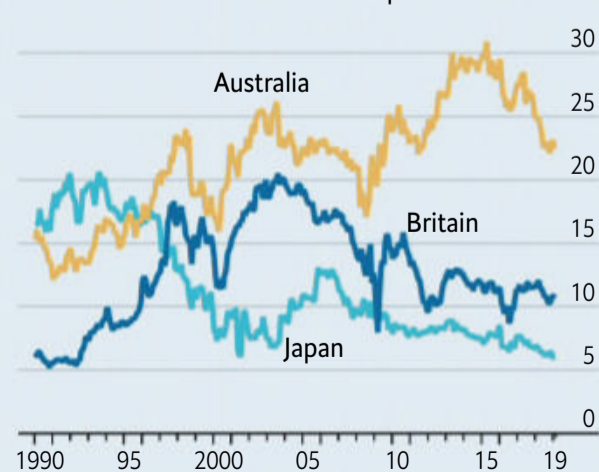
The wider damage has so far been limited. The number of permits issued for apartment buildings has fallen, but a full pipeline of projects means that construction firms are still busy. Consumers have kept spending. The Australian dollar fell by 10% against the American dollar in 2018, but its current level is not out of the ordinary.

Still, the situation looks fragile. Doubts about the durability of consumer spending have kept the Reserve Bank of Australia from raising interest rates, from their current 1.5%. A heap of mortgage debt seems wise when house prices are rising; less so when prices fall, especially for those who bought at the peak. The momentum that drove the market up, as higher prices fuelled expectations of further gains, works in reverse too.

Efforts to stabilise an economy often lead to booms in asset prices and credit, which in turn leaves it vulnerable come the next spot of trouble. The lucky country has avoided so many potential slip-ups that even long-standing bears are wary of predicting a fall. Perhaps a new round of fiscal stimulus in China will lift Australia’s fortunes. But for many people’s tastes, China is an even better example of a tragic principle. The more banana skins you dodge, the bigger the manhole waiting for you.

Living large down under

Banks as % of total stockmarket capitalisation



Source: Datastream from Refinitiv

Regulating auditors

Big numbers

Efforts to improve oversight of company accounts rumble on

AUDITORS ARE supposed to provide an independent view of company accounts. But regulators fear that the relationship between auditors and those they audit can become too cosy—which is why the European Union has decided that, from 2020, companies will have to switch auditor at least once every 20 years. Last week the Financial Reporting Council (FRC), a British regulator, sent a letter to audit firms warning them away from “rotation in form but not in substance”.

That was aimed at subsidiaries of American banks. The FRC wants to deter Goldman Sachs and PwC, the auditor it has used since 1926, from seeking to satisfy the new rules by hiring a smaller auditor for the Wall Street firm’s British subsidiary while retaining PwC for the global business.

The spat is a consequence of flaws in the audit market. It is dominated by four global networks: PwC, Deloitte, KPMG and EY, which also have consultancy arms and between them audit 98% of companies in the S&P 500 and FTSE 350. Most big multinationals receive consultancy services from those of the Big Four that they do not use as auditor. Rotating auditors therefore means either severing a consulting relationship or turning to a smaller audit firm. But none outside the Big Four is likely to have the expertise to audit a global company.

Recent high-profile corporate failures, notably that of Carillion, a construction firm, have put Britain at the centre of discussions about how to fix the audit market. The Competition and Markets Authority (CMA), the national antitrust watchdog, has been considering possible reforms since last autumn. In a paper published in December it suggested several, including operational division of audit and consulting within firms (it shied away from proposing forced break-ups). A consultation on its ideas closed on January 21st.

Another of its proposals was for mandatory joint audit, in which two firms would share the work. Both would retain full responsibility, unlike Goldman’s plans to split its audit work geographically. Companies could not retain either for longer than 20 years. The thinking is that joint audits might be higher-quality and, if one of the auditors was a minnow, it would be given the chance to gain experience and grow.

On the same day as the CMA published its paper, another review came out looking at the FRC. Commissioned by the British

government from Sir John Kingman, the chairman of Legal & General, a life insurer, it was scathing. It likened the FRC to a “ramshackle house” built on weak foundations, and recommended its replacement by a new regulator with more powers. Despite the harsh words the FRC welcomed the report, which it said had “set a course for a stronger, new regulator to emerge”.

The government said it would act on the recommendations. Meanwhile, the outgoing chairman of the London Stock Exchange, Donald Brydon, has been asked to lead yet another review on audit quality, building on the previous work. Companies up against a tight deadline to switch auditor can expect the rules to change more. ■

Unwinding quantitative easing

A delicate balance

Is the Fed’s shrinking balance-sheet causing market turbulence?

AS DULL AS “watching paint dry”. That was how Janet Yellen, the former head of the Federal Reserve, described plans for a gradual unwinding of its \$4.5trn balance-sheet announced in September 2017. The Fed’s stock of assets had swelled during the previous decade as it engaged in “quantitative easing” (QE), seeking to ease the pernicious effects of the global financial crisis. Now that the economy had recovered, it planned to shrink its balance-sheet again.

The plan was to set a path and proceed on autopilot. This, it was hoped, would avoid the pace of unwinding being taken as a signal of the direction of interest rates. It would start slowly, just \$10bn a month from October 2017, and smoothly pick up pace. By October 2018 it had quickened, as planned, to \$50bn.

That coincided with the start of a bout of market turbulence. The S&P 500 index of

leading shares fell by 14.0% in the final three months of 2018. The yield on ten-year Treasuries fell by 0.7 percentage points, peak to trough, suggesting growing pessimism about long-term growth. The coincidence of timing led many to blame the turbulence on the tightening.

The Fed’s expanding balance-sheet was intended to achieve different things at different times. The first was to provide banks in crisis with liquidity. The second was to signal to markets that monetary policy would remain loose for some considerable time. The third was to reduce bond yields, encouraging investors to buy riskier assets.

The current unwinding is unlikely to affect liquidity much: banks still hold significant excess reserves. And any signal sent by shrinking the balance-sheet would have come when the policy was announced, not when it was carried out. Since the Fed was on autopilot, “the path of the balance-sheet should already have been baked in to the market”, says Richard Benson of Millennium Global, a hedge fund.

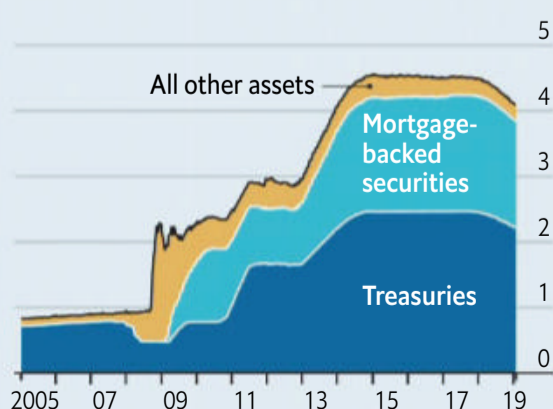
That leaves the question of whether QE encouraged investors to buy riskier assets, like stocks. “If you thought QE reduced yields in the first place, you should think the reversal might have the opposite effect,” says Glenn Hubbard, chairman of George W. Bush’s Council of Economic Advisers. The Fed’s economists estimated that the effect of QE had been to lower long-term bond yields by one percentage point.

But that does not imply that shrinking the balance-sheet caused market troubles. That yields would rise by as much as they fell is unlikely for several reasons. The Fed does not plan to shrink its balance-sheet to pre-crisis levels. Nor is all else equal. The end of QE in Europe, announced last December, is a new source of uncertainty. If the market thought a big rise in long-term rates was likely, the term premium—the difference between short- and long-term interest rates—would have jumped as unwinding was announced (it did not). Besides, bond investors have other worries. Tim Duy of the University of Oregon, the author of a widely read blog, “Fed Watch”, points to increased issuance of Treasuries, a consequence of a bigger fiscal deficit.

The problem facing the Fed is how to react to the charge that its unwinding of QE is causing the market’s jitters. If Jerome Powell, its chairman, ignores these concerns, it could cause further turbulence. But the more he says about the pace of unwinding, the more likely it is that markets start to read it as a signal of broader monetary policy. On January 4th he said he “would not hesitate” to slow down if policymakers decided that it was “part of the problem”. Markets rejoiced: the S&P 500 rose by 3.4% that day. But, by speaking, Mr Powell drew markets’ attention to the Fed’s balance-sheet—just what he least wanted to do. ■

Winding up the markets

United States, Federal Reserve balance-sheet
\$trn



Source: Federal Reserve

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The euro area is back on the brink of recession. That is not surprising



IT BEGAN AS a joke: the Twitter hashtag #euroboom tacked on to news of any sign, no matter how faint, of a euro-area recovery. By 2017, when French, German and even Spanish GDP grew by more than 2%, it seemed to describe a real phenomenon. Alas, all too quickly #euroboom has turned to #eurogloom. GDP data scheduled for release later this month are likely to confirm that in the final three months of 2018 Italy's economy contracted for a second consecutive quarter, satisfying one of the technical definitions of a recession. Germany appears to have escaped recession, but only just. The euro area, formed in January 1999, may pass its anniversary on the brink of another downturn.

The euro has been an economic fiasco. GDP growth in the euro area has lagged behind that in other advanced economies, and in the European Union as a whole, throughout its life—before the financial crisis, during the global recession and its euro-area encore, and even during the recent #euroboom. Perhaps the area would have done as badly without the single currency. But attempts to estimate euro-zone performance relative to a counterfactual world *sans* euro suggest not. The past decade has been especially brutal. A list of the world's worst performers in terms of real GDP per person since 2008 contains places suffering geopolitical meltdowns—plus the euro-area periphery. Greece has been outgrown by Sudan and Ukraine. Cyprus and Italy have been beaten by Brazil and Iran; France and the Netherlands by Britain.

And now the euro area begins its third decade, a new slump looming. It has many causes. German car production slowed as firms worked to meet new emissions standards. Italy's economy wobbled as its new populist leaders battled with Brussels, spooking markets. Protests threw a wrench in the gears of the French economy. China's slowdown and straitened global financial conditions took a toll. But although the specific forces dragging down euro-area growth might not have been foreseeable two or three years ago, an eventual return to gloomy form should have been.

The euro zone's economies labour under plenty of structural hindrances to growth. But since 2008 their main constraint has been weak demand. After the global crisis growth briefly revived, only to swoon again because of institutional weaknesses. Investors fretted that the European Central Bank (ECB) would not stand

behind nationally issued bonds or deposits at nationally insured banks, and panicked accordingly. Fear subsided as European leaders moved grudgingly to create supranational stabilisation mechanisms, allowing the ECB to promise to support national bonds and banks. Growth remained weak, however, despite the ECB's decision in 2015 to begin an open-ended programme of stimulative bond purchases, like those started elsewhere long before.

Then came the #euroboom. If reform and ECB action cleared away obstacles to growth, it was demand imported from abroad that rescued the euro area from its doldrums. From 2013 to 2016 net exports contributed substantially to growth; the euro area's current-account surplus leapt from roughly 1% of GDP to nearly 4%. As a recovery in export industries reduced unemployment, domestic demand played a bigger part in boosting growth. In 2017 and the first half of 2018, consumption contributed more than two percentage points to growth in GDP. Investment chipped in another percentage point. The euro area was lucky. Had China's government not flooded its economy with stimulus, or had America not supported global production by running vast trade deficits, then the boost to demand needed to put Europeans back to work, and get them spending again, might never have materialised.

That is because Europe's crisis-era reforms also included draconian measures to limit government borrowing. The price of German support for crisis-addled economies was a revision to the "stability and growth pact", which is intended to keep budgets in line. The new fiscal compact struck in 2012 requires governments to keep net borrowing to no more than 3% of GDP. Though that may not seem particularly onerous, it also requires them to maintain a structural budget deficit (adjusted to take account of the business cycle) of no more than 1% of GDP if debt is "significantly" below 60% of GDP, and no more than 0.5% of GDP if debt is above that level. Governments with debt above 60% must also take steps to bring it back below that threshold; those approaching it can no doubt expect stern warnings. Countries in egregious violation of these rules are subject to penalties. In Italy, which has public debt of around 130% of GDP, populists were carried into office by frustration with the status quo, but cowed into budget sobriety last year after the EU threatened to impose such penalties.

#eurodoom

In effect, Europe has denied governments the ability to use their budgets to boost demand. These fiscal shackles would be less worrying if the ECB were better positioned to boost private spending by easing monetary policy. But its effective interest rate is already negative. The slowdown in 2018 came despite the ECB asset purchases continuing, albeit more slowly than in 2016 and 2017. Foreign spending could keep the euro-area economic engine turning over. But it is fickle, as the currency bloc is learning. It was only a matter of time until an ill wind caused the euro area's sails to slacken, exposing its inability to maintain domestic demand without external help. The shift from boom to gloom was inevitable.

It need not be permanent. Europe could loosen its fiscal restraints. Better still, it could make use of its combined fiscal potential by mutualising some debt and creating a euro-area budget big enough to offer meaningful stimulus. These reforms would require a big shift in the balance of power and thinking within Europe. Such shifts have occurred before, in the throes of crisis. But if the past ten years of #eurogloom did not demonstrate the pressing need to maintain an array of demand-boosting tools, it is difficult—and frightening—to contemplate what ultimately will. ■

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Combating drones

A new dogfight

The technology available to deal with rogue drones is getting better

FOR SOMETHING weighing only a few kilograms and costing less than \$2,000, even for a sophisticated model, a small consumer drone can cause an awful lot of havoc. On January 22nd flights in and out of Newark airport, near New York, were suspended temporarily after reports of a drone being aloft nearby. On January 8th Heathrow, London's biggest airport, also shut briefly because of a drone sighting. And in the busy run-up to Christmas London's second airport, Gatwick, was closed for more than 36 hours after drones were spotted flying near its runway. EasyJet, the biggest operator at Gatwick, said this week that the grounding of flights had cost it £15m (\$19m).

Airport incursions are not the only danger posed by drones. A growing number of close drone encounters are being reported by airline pilots. On December 12th a Boeing 737 belonging to Aeromexico managed to land safely at Tijuana after its nose was badly damaged in a collision with what may have been a drone. Elsewhere, drones

are being used to smuggle goods across borders, drugs into prisons, to attack military bases with explosives and in assassination attempts, like that which took place last August on Nicolás Maduro, the president of Venezuela.

The authorities are increasingly concerned. Christopher Wray, the director of America's Federal Bureau of Investigation, said recently that the threat to his country from attacks by rogue drones "is steadily escalating". There are no easy answers to the problem, although it helps to define the nature of the threat. Irresponsible drone pilots might be kept in check by better education, tough penalties and more manu-

facturers installing features such as "geofencing" in drones' mapping software, to prevent them straying into restricted areas. But terrorists and their like will not take any notice of rules and regulations, and will hack software restrictions or build their own drones from readily available components to try to defeat countermeasures. To combat rogue drones will therefore require better technology.

The most extensive review of counter-drone products, by Arthur Holland Michel, co-director of the Centre for the Study of the Drone at Bard College, New York, and his colleagues, is now a year old, having been published in February 2018. Even then, though, at least 235 such devices and systems were on sale or in active development. The most popular methods of drone detection were radar, locating the radio frequencies used by drones, and watching out for them with cameras. But other approaches, including infrared sensors and acoustic devices that can recognise the sounds produced by a drone's electric motors, were also employed. The most frequently used countermeasure was radio-jamming. Because of a lack of industry standards, the report concluded, there was wide variation in the effectiveness and reliability of the technologies.

Some anti-drone systems are based on military hardware, and may be more suitable for use on a battlefield than in civvy street. Firing missiles, bullets or high-▶

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▶ energy lasers to bring down a drone in the vicinity of a commercial airport is dangerous. Besides the risk of hitting unintended objects, or even people (a rifle bullet can still be travelling at lethal velocity several kilometres from where it was fired), there is also the possibility that a target drone may not be knocked out completely, and may thus spin out of control to crash somewhere that causes serious damage or injury. Nor are small drones easy to hit. One that was flown into Israeli airspace from Syria in 2016 survived two attacks using Patriot missiles, as well as rockets fired from a fighter jet.

Measure for countermeasure

Airport operators also need to be careful about electronic countermeasures, warns Iain Gray, director of aerospace at Cranfield University, in Britain. Signal-jamming can block the link between a drone and its operator, or overwhelm a GPS-based navigation system. But unless such jamming is carried out carefully it might also damage an airport's sensitive radio and navigation equipment, and the instruments on aircraft, says Dr Gray. If every plane at an airport had to be checked to ensure it was safe to fly after electronic countermeasures were deployed, that would cause extensive delays in resuming operations.

Anti-drone technology is, nevertheless, improving. This week Indra, a big Spanish technology company, said it had completed extensive testing in "dangerous" places of an anti-drone system called ARMS. Once the system's sensitive radar has picked up a drone, ARMS uses infrared cameras to confirm and identify the type of drone. Electronic-warfare sensors then sweep the radio spectrum to determine what signals the drone is using. This permits ARMS to attempt a "soft kill"—a carefully targeted form of jamming. Indra claims that the system is precise enough to disable either a single drone or a swarm of them, by modulating the level of response, without affecting other electronic equipment on an airfield. Like other approaches, it can also use various "spoofing" techniques, which involve generating bogus signals that can be used to try to seize control of a drone.

Such counter-drone systems can be made portable, permitting them to be used at special events. And they will become increasingly sophisticated. QinetiQ, a British defence firm that makes a counter-drone system called Obsidian, has found ways to use signals to disrupt the electronic circuits within a drone, allowing it to disable a drone's camera or turn off its electric motors. Obsidian can also analyse a drone's flight characteristics and the loading of its electric motors. That helps determine how heavily laden it is, and thus whether it might be carrying explosives.

Both Indra and QinetiQ use an advanced

form of radar that operates in three dimensions. Such 3D radars will be particularly valuable at airports, says Dr Gray. Existing airport radars are bad at picking up small things like drones. Even if they do spot them, they struggle to distinguish them from birds. Conventional 2D radar scans an area using a narrow rotating beam and detects objects when the signal is bounced back, providing range and direction. Height can be determined by a second radar. A 3D radar combines all three measurements, sometimes by using a fixed array that floods an area continuously with a signal. The returning signals are processed to create a three-dimensional model of the entire airspace surrounding an airport.

Another firm making an anti-drone system that uses 3D radar is Aveillant, based in Cambridge, Britain. Aveillant says Gamekeeper, as it dubs its equipment, can detect and classify a small drone up to 5km away. As drones can be difficult to spot by eye, even when they are only a few hundred metres away, 3D radars of this sort would allow airports to detect drone incursions more quickly and be more confident about when it is safe to resume flights.

There are plenty of other ideas for dealing with drones. These include launching defence drones to capture villainous craft by entrapping them in a net; hand-held bazooka-like guns that fire nets propelled by a blast of compressed air; and portable radio-jamming equipment, similarly shoulder-mounted and hand-aimed. In the Netherlands, the police have even tried using trained eagles to attack and bring down small drones, although the idea was eventually dropped. All these methods, though, share a flaw. They usually require operators to be at hand and fairly close to an intruding drone.

That is also true of what might seem the most obvious and simplest way to deal with a drone: a shotgun. Some folk nevertheless think this could be worth a go. Snake River Shooting Products, a firm in Idaho, sells cartridges it says are specially designed to knock a small drone out of the sky. But as the firm scrupulously reminds its customers, they need to use their common sense and obey all laws. One of which is that in America a drone is considered to be an aircraft, and people are not, as a rule, supposed to shoot at aircraft. ■

Marine biology

Cool cucumbers

An apparently sedentary sea creature proves anything but

SEA CUCUMBERS, soft-bodied relatives of sea urchins and starfish, are a sought-after foodstuff. In China alone the market for their flesh is worth \$3bn a year. Unfortunately for those who try to make a living catching them, their populations often seem to undergo a cycle of boom and bust.

Annie Mercier of the Memorial Univer-

sity of Newfoundland, in Canada, was curious to know why this is. In particular, she wondered whether over-harvesting was to blame, or if the animals were simply migrating away. As she reports in the *Journal of Animal Ecology*, they not only migrate, they do so by adopting a second vegetable-like guise—that of tumbleweeds.

The idea of adult sea cucumbers migrating sounds at first implausible. The animals' larvae do indeed range far and wide. But once those larvae have settled they metamorphose into squishy cylinders resembling their vegetable namesakes. These grow, in most species, to a length of between 10 and 30 centimetres. Adult sea cucumbers can, as do starfish and sea urchins, move around using suckerlike structures called tube feet. But they rarely travel any great distance.

Dr Mercier and her colleagues studied two species. One, *Cucumaria frondosa*, lives wild off the coasts of Newfoundland and Nova Scotia. The other, *Holothuria scabra*, was being farmed in enclosures with an area of 15,000 square metres, located off the coast of Madagascar.

To monitor the Canadian animals the ▶▶



Cucumaria frondosa and friends

► team used ships equipped with tethered underwater cameras. These filmed at depths of between 220 and 300 metres in Nova Scotia, and 41-57 metres in Newfoundland, for 20 to 30 minutes at a time while the ships were slowly drifting over the surface. The Madagascan animals were easier to observe, given that even at high tide they were only 1½-2½ metres below the surface. In their case the researchers monitored them every 15 days over the course of a year and a half.

Two of the Canadian observations, one at each site, hit pay dirt. Near Newfoundland, a camera captured hundreds of the creatures drifting past in mid-ocean, in a current that was moving at 30 metres a minute. Near Nova Scotia several dozen darted by at speeds averaging 55 metres a minute—fast enough to travel 80km in a day. Madagascar provided no direct evidence of this sort of movement. It did, however, indicate how it may start. The team found that during ebb tides when the moon was full (and the tide thus at its springiest) fanned individuals of *Holothuria scabra* sucked in water and became buoyant enough to roll outside the fenced enclosures. Since an ebbing spring tide is the moment the current is most likely to carry an object out to sea, this behaviour looked like some sort of escape strategy.

These discoveries suggested that adult sea cucumbers, far from being sedentary, do indeed use ocean currents to move about. To find out more, Dr Mercier welcomed members of *Cucumaria frondosa* into her laboratory for testing. She speculated that exposing them to crowded conditions might lead them to engage in migratory behaviours. And so it proved.

The Great Escape

Dr Mercier and her team put the animals into tanks at four population densities, varying from solitary confinement to 5, 10 or 15 a square metre. The higher the density the fewer the tube feet an animal kept in contact with its substrate—and the more easily it was carried away by any current. This reaction was even more extreme when other stresses, such as high turbidity or low salinity, were added. These encouraged the animals to detach their tube feet completely, open their cloacas to flood their bodies with water, and thereby transform themselves into buoyant rounded blobs, readily carried away by the slightest movement of the water.

In light of all this Dr Mercier suggests the boom-and-bust nature of sea-cucumber fisheries, though not caused by actual overfishing, might nevertheless be a migratory response to disturbance created by trawling. If this proves to be so, then those seeking to make a living selling sea cucumbers may wish to find gentler ways of harvesting them. ■



Palaeontology

Like clockwork

Shifts in Earth's orbit may increase the chances of spectacular fossils

FOR PALAEOLOGISTS, fossils are buried treasure, and, like treasure of the more conventional sort, such finds are not all of equal value. Fossilised bones, while useful, are reasonably common. Preserved impressions in fine sediment of soft parts like skin and organs are rarer and concomitantly more helpful when it comes to understanding what ancient life was like. But the palaeontological equivalent of finding royal jewels is the discovery of soft tissues that have themselves become preserved. Until now it has been assumed that soft-tissue preservation is a chance, and therefore unpredictable, event. But work published in *Geology* by Farid Saleh of Claude Bernard University in Lyon, France, suggests that regular variations in Earth's orbit can affect the preservation of soft tissue in predictable ways.

For such tissue to be preserved, minerals that impede the activities of tissue-consuming bacteria need to surround the body of a dead organism quickly, before it can rot away. Iron-rich minerals are particularly good at keeping flesh-eating bacteria at bay and are thus commonly found in the sediments around soft-tissue fossils. These sorts of minerals appear in the geological record seemingly at random but, while studying the Fezouata shale, a 500m-year-old formation in Morocco, Mr Saleh noted that exquisitely preserved soft-tissue fossils of annelid worms, sponges, arthropods

(pictured) and echinoderms seemed to turn up at regular intervals.

Intrigued by this, he assembled a team to take a closer look and found that, while fossils of the hard parts of animals (shells, sponge spicules and so on) were common in all sedimentary layers, soft-tissue fossils were confined to six layers deposited at intervals of 100,000 years, or multiples thereof. These particular fossils had all formed through a process called pyritisation whereby pyrite, a substance also known as fool's gold, and composed of iron sulphide, seeped into the tissues of the dead animals and mineralised them.

The team then analysed rock from other strata in the formation and found it to be poor in iron—with three telling exceptions. These were places that the 100,000-year cycle suggested should be pyritised, but were not. They were, however, iron-rich, suggesting the cycle is real. That pyrite seemed not to have formed in them was because the conditions of their birth were oxygen-rich. Pyrite forms only in the absence of oxygen. And, for the preservation of soft tissue, it is insufficient that iron be present. It must also invade that tissue and precipitate within it, which pyrite is particularly good at doing.

These findings presented Mr Saleh with the question of why iron flooded into the shallow sea where the Fezouata shales were forming only every 100,000 years, and this led him to ponder planetary movements. Earth revolves around the sun in an orbit that is almost, but not quite, circular. Its actual shape is an ellipse, and the elongation of this ellipse, a property called its eccentricity, oscillates over the course of time. That, in turn, affects the extremity of the seasons Earth experiences. The more eccentric the orbit, the more extreme the difference between summer and winter.

Such seasonal variation can show up in all sorts of ways. And, when Dr Saleh compared the pattern of this oscillation, which is well-established back beyond 500m years ago, with that of his 100,000-year spikes of iron availability, he found that the spikes coincided with moments of maximum eccentricity. He reasoned that the more intense seasonality was causing greater rainfall, increased erosion and, consequently, the transport of more iron from land to sea. These ferrous pulses, in turn, preserved the soft tissues of dead animals, so long as the sediments at the bottom of the sea were anoxic at the time.

Whether Mr Saleh has come across something that is merely a local fluke or is a phenomenon that has parallels elsewhere—and which might thus be used to hunt for previously unknown rocks with good soft-tissue preservation—remains to be seen. At the least, though, he has shown how astronomical events can have unexpected consequences on Earth. ■

Modern life

A pressing problem

The pros and cons of placebo buttons

SUPPRESSIO VERI, suggestio falsi. Over the course of many years, without making any great fuss about it, the authorities in New York disabled most of the control buttons that once operated pedestrian-crossing lights in the city. Computerised timers, they had decided, almost always worked better. By 2004, fewer than 750 of 3,250 such buttons remained functional. The city government did not, however, take the disabled buttons away—beckoning countless fingers to futile pressing.

Initially, the buttons survived because of the cost of removing them. But it turned out that even inoperative buttons serve a purpose. Pedestrians who press a button are less likely to cross before the green man appears, says Tal Oron-Gilad of Ben-Gurion University of the Negev, in Israel. Having studied behaviour at crossings, she notes that people more readily obey a system which purports to heed their input.

Inoperative buttons produce placebo effects of this sort (the word placebo is Latin for “I shall be pleasing”) because people like an impression of control over systems they are using, says Eytan Adar, an expert on human-computer interaction at the University of Michigan, Ann Arbor. Dr Adar notes that his students commonly design software with a clickable “save” button that has no role other than to reassure those users who are unaware that their keystrokes are saved automatically anyway. Think of it, he says, as a touch of benevolent deception to counter the inherent coldness of the machine world.

That is one view. But, at road crossings at least, placebo buttons may also have a darker side. Ralf Risser, head of FACTUM, a Viennese institute that studies psychological factors in traffic systems, reckons that pedestrians’ awareness of their existence, and consequent resentment at the deception, now outweighs the benefits.

Something which happened in Lebanon supports that view. Crossing buttons introduced in Beirut between 2005 and 2009 proved a flop. Pedestrians wanted them to summon a “walk” signal immediately, rather than at the next appropriate phase in the traffic-light cycle, as is normal. The authorities therefore disabled them, putting walk signals on a preset schedule instead. Word spread that button-pressing had become pointless. The consequent frustration increased the amount of jaywalking, says Zaher Massaad, formerly a senior traf-

fic engineer for the Lebanese government.

Beirut’s disabled buttons are, says Mr Massaad, now being removed. They should all be gone within three years. New York has similarly stripped crossings of non-functioning buttons, says Josh Benson, the city’s deputy commissioner for traffic operations, though it does retain about 100 working ones. These are in places where pedestrians are sufficiently rare that stopping the traffic automatically is unjustified. However, internet chatter about placebo buttons has become so common that doubt, albeit misguided, seems to be growing about even these functioning buttons’ functionality. This suspicion, says Mr Ben-

son, has spread beyond New York, to include places such as Los Angeles, where almost all the crossing buttons have always worked, at least during off-peak hours.

Truth be told, though, the end may be nigh for all road-crossing buttons, placebo or real. At an increasing number of junctions, those waiting to cross can be detected, and even counted, using cameras or infrared and microwave detectors. Dynniq, a Dutch firm, recently equipped an intersection in Tilburg with a system that recognises special apps on the smartphones of the elderly or disabled, and provides those people with 5 to 12 extra seconds to cross. That really will be pleasing. ■

Trick photography

Out of the shadows

A simple camera that can see round corners

CAMERAS THAT look round corners already exist. But they rely on specialised lasers which blink on and off trillions of times a second, and light detectors sensitive enough to track individual photons. Something simpler and more robust would be desirable. And, as they describe in *Nature*, a team at Boston University in Massachusetts, led by Vivek Goyal, think they have the makings of one.

In their prototype, Dr Goyal and his colleagues placed an opaque object called an occluder in front of a TV screen that was hidden around the corner from a digital camera (see diagram). Illuminated by the screen, the occluder cast a partial shadow, known as a penumbra, on a wall that the camera could see. Run through appropriate algorithms, pat-

terns within the penumbra, invisible to the eye but recorded by the camera, could be used to reconstruct cartoon faces, university logos and arrangements of stripes that the screen had displayed.

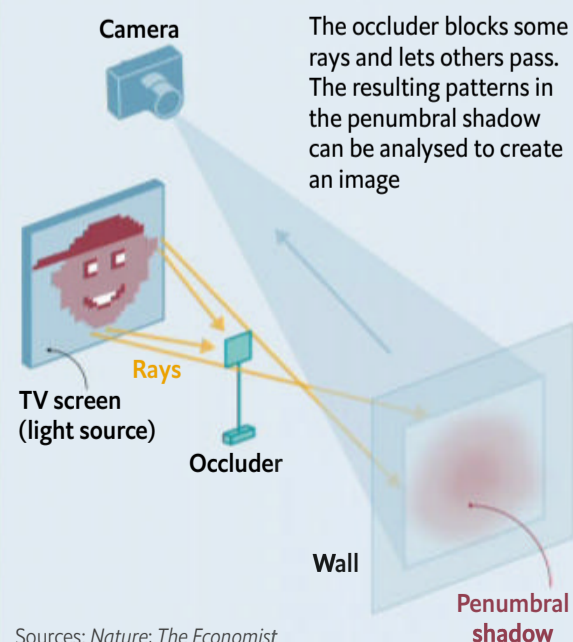
The crucial part of the system was the occluder. Because its shadow was only partial, the wall reflected some light from the screen, but not all of it. In this case the old saying that absence of evidence is not evidence of absence is incorrect. If the size and shape of the occluder are known, it is possible, using sufficiently dizzying maths, to calculate from the pattern of the penumbra what light has been blocked—and thus what the image on the screen looked like.

Having to know the size and shape of the occluder is, admittedly, quite a restriction on the implementation of Dr Goyal’s method. But these are early days. Future algorithms could include more unknowns about the occluder. That would slow things down computationally (and the prototype is not, in any case, that rapid; it takes 48 seconds to produce an image from the data). But, as computers get faster, this problem should eventually be surmounted.

If it can be surmounted to the point where occluders of arbitrary shape, such as rocks, trees or parked vehicles, can be used, and the definition of a “wall” is similarly flexible, then round-the-corner imaging of the sort Dr Goyal describes might find wide application. Soldiers would love it, to help avoid nasty, hidden surprises. And self-driving cars that could see down side streets would be much safer. At that point a second old saw would have been proved wrong. Out of sight would no longer necessarily be out of mind.

Me and my shadow

How to take a picture round a corner





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Political theory

The wheel of history

A century after he formulated them, Max Weber's ideas about the challenges of democratic politics are still illuminating

IN JANUARY 1919 Munich was in turmoil. Revolution in November of the previous year had swept away the King of Bavaria, installing a ramshackle regime headed by a messianic journalist of the radical left, Kurt Eisner. As in much of Germany in the aftermath of the first world war, rival factions of left and right battled for power on the streets. In Berlin the communist luminaries Karl Liebknecht and Rosa Luxemburg were murdered as Social Democrat party leaders used Freikorps paramilitaries to assert the authority of their fledgling government. Eisner himself would soon be shot dead by a reactionary nationalist.

The Weimar Republic was being born, as it would die, in blood. On January 28th, in this febrile atmosphere, Max Weber made one of the most important contributions to modern political theory, in a lecture titled "Politics as a Vocation" ("Politik als Beruf"). Eerily relevant in today's age of demagoguery, it is as valuable a map to the contemporary political landscape as it was, 100 years ago, to Weber's.

A towering figure of 20th-century German intellectual life—and a founder of the modern discipline of sociology—Weber gave his talk to an association of liberal-

leaning students on the theme of political leadership and political life. Politics, he told them, is a distinct form of activity, with its own brute imperatives. It "means slow, strong drilling through hard boards", a ceaseless struggle between leaders and party elites. Anyone who gets involved makes a pact with "diabolical powers"; there is no moral authority to guide them, and no option but to get their hands dirty, sometimes even bloody. Famously Weber defined the state as the body that claims a monopoly on the legitimate use of force. His audience could expect no comfort from this unyielding reality. Ahead lay "a polar night of icy darkness and hardness".

The trouble with saints

Weber's stern realism was not merely academic. He was contemptuous of Eisner, whom he numbered among the "literati", and considered an exemplar of the type of leader guided solely by a determination to stay true to his principles, whatever the consequences. This "ethic of conviction", Weber argued, was the hallmark of saints, pacifists and purist revolutionaries who could blame the world, the stupidity of others or God himself for the impact of their

deeds, as long as they had done the right thing. He contrasted that with an "ethic of responsibility", which demanded that politicians own the results of their actions, making moral compromises to achieve those results if necessary. Evil things can flow from good deeds, Weber knew, just as much as the other way round.

For Weber, the true political leader—one for whom politics is a vocation—is characterised by three qualities: passion, a feeling of responsibility and a sense of proportion. The leader has a cause; he or she is not a "parvenu-like braggart with power", whose baseless policies lead nowhere. On the contrary, those marked out for political leadership have ethical backbones and an inner sense of purpose. But these are combined with sober judgment and a deep sense of responsibility. Together these qualities produce politicians who can place their "hand on the wheel of history". It is "genuinely human and profoundly moving" when (like Martin Luther) such leaders say: "Here I stand, I can do no other." Modern readers may wistfully agree.

Weber was a liberal nationalist who believed that the fate of Germany was the central *raison d'être* of politics. His preoccupation with the character and ethics of politicians reflected his belief that his country faced a moment of great peril and needed strong, capable leadership of the kind he celebrated in his Munich lecture. Germany had been badly led in the war and was threatened with subjugation by its victors. Weber was not above calling on his students to resist occupation by force; he gave succour to irredentist sentiments. But ►

▶ he was chiefly interested in how Germany could produce statesmen able to guide it out of the turmoil of defeat and civil conflict. It might have lost its place as a world power, but it still had its honour.

Appeals to the power of tradition would no longer work, however. The Kaiser had abdicated and the monarchy was gone. A modern nation following the democratic path, Weber argued, had two options: rule by bureaucrats and parliamentary cliques acting from self-interest and “living from” politics; or a “leadership democracy” in which a charismatic leader, “living for” politics, commands a party machine that can mobilise voters. Mass democracy, Weber knew, always meant rule by elites. But voters had a choice between responsible and irresponsible kinds. He admired William Gladstone’s ability to dominate both Parliament and the Liberal Party; but for Germany he advocated a directly elected president who would stand above the petty factions of parliamentary politics and the fiefs of the federal territories.

This was to become one of the most contentious of Weber’s legacies to German politics. He was active in public debates about the Weimar constitution and was recruited to an official commission given the task of framing it. His support for a “Caesarist” president, or “plebiscitary dictator of the masses”, would later draw criticism that it prefigured the overthrow of the Weimar Republic by the Nazis, despite the fact that Weber’s proposals mixed parliamentary and directly elected elements, and remained liberal, not authoritarian.

The iron cage

Weber died of Spanish flu in 1920, but “Politics as a Vocation”, and the newspaper articles he wrote at the same time, remained touchstones for German debates on democracy and constitutional law for the rest of the 20th century. In Anglo-American thought, his talk became a classic of political theory after it was translated into English and published in America after the second world war. It has commonly been read as a lecture in two parts: one a scientific study of modern parties and leaders, the other a meditation on the ethics of political leadership. It has been hugely influential in the realist tradition of political theory, which emphasises the role of states and interests over values and has experienced a revival in recent years.

A century on, Weber’s insights still help make sense of politics. In democracies governed by elites who struggle with each other for power, while paying lip service to equality or liberty—and who sometimes deploy violent means to pursue their goals—his arguments remain grimly compelling. His cool appraisal of demagoguery is useful for understanding the rise of charismatic authoritarians who command obe-

dient party machines. The antics of Vladimir Putin, Viktor Orban or Recep Tayyip Erdogan would not have surprised him.

Nor would the recent fall from grace of “responsible” leaders of the centre ground, for whom pragmatism and technocratic management have proved unequal to the demands of a turbulent age. Weber, after all, insisted on the centrality of passion and the struggle for power in politics. Donald Trump, meanwhile, is a brittle composite of Weberian types—not obviously possessed of an ethic of conviction, but sustained in power by a Republican Party machine and his own peculiar charisma. He would doubtless have repulsed and fascinated Weber in equal measure.

“Politics as a Vocation” continues to inspire those who want to understand poli-

tics as it is, not as they might wish it to be. Yet realism like Weber’s can also seem like acquiescence in the status quo. His left-wing critics believed he was trapped in an iron cage of his own making, unable to see how the tides of history might open up possibilities of radical change.

One of the students who attended his lectures in Munich in 1919 was Max Horkheimer, a founder of the Frankfurt School of critical theory. Many years later he would remark of a Weber lecture: “Everything was so precise, so scientifically austere, so value-free, that we went home completely gloomy.” That charge has echoed down the years, and points to a dilemma that still faces all practitioners of democratic politics: can you be realistic and radical at the same time? ■

The elite that failed

The Davos delusion

Down with philanthrocapitalism, says an entertaining polemic

IT IS MORE than 20 years since Samuel Huntington introduced the concept of Davos Man in his great book “The Clash of Civilisations”. Now Anand Giridharadas has gone one better and taken his reader deep inside the mind of that peculiar creature. Everybody knows the basics: Davos Man believes that markets are more efficient than governments and that globalism is preferable to nationalism or localism. Mr Giridharadas’s trick is to focus on the more intriguing parts of the Davos world-view: that businesses can “do well by doing good”; that philanthropy needs to be “reinvented” for the age of the internet and the t-shirt-wearing billionaire; and that one of the greatest problems facing the world, even as some inner-cities are ravaged by



Cruel to be kind

Winners Take All: The Elite Charade of Changing the World. By Anand Giridharadas. Knopf; 304 pages; \$26.95. Allen Lane; £12.99

drugs and violence, is that there aren’t enough Davos Women to join the Davos Men in this win-win nirvana.

A few years ago Mr Giridharadas, who works as a political analyst for MSNBC and teaches journalism at New York University, stumbled across a big problem—that the rise of the win-win mantra had coincided with one of the longest periods of wage stagnation in American history. Davos Man’s smiley-faced faith in business-led solutions (green bonds, impact investing, social innovation and the rest) concealed a harsher reality. Businesses were relentlessly pursuing efficiency and cutting costs—shifting jobs to cheaper places or forcing people to work longer hours—and then recycling a fraction of the profits they made into Davos-style consolations.

All this recycling is wonderful for the billionaires who derive a warm feeling from spending their money on helping the poor. It is wonderful for CEOs who can burnish their brands by embracing the latest fashionable good cause. It is particularly wonderful for the “thought-leaders” who can spend their lives hanging out with Sergei and Mark and suggesting clever ways for their philanthrocapitalist masters to cure the world’s ills. But it does little to make up for the winner-takes-all philosophy that is driving companies to hold down wages and transfer the burden of risk onto ▶▶

▶ their employees. And it does little to solve the problems of “the unexotic underclass”—white ex-working-class men in particular—who have been deemed too boring and reactionary for the Davos crowd to bother about.

It is easy to raise objections to Mr Giridharadas’s argument. He ignores the fact that figures like Bill Gates have done a great deal of good. He doesn’t mention that, even though incomes in the West have stagnated in recent decades, hundreds of millions of people in the emerging world have been lifted out of poverty. His anti-business animus is blunt-edged: he would have been better off focusing on genuine scandals such as tax-dodging rather than railing against efficiency-seeking in general. Yet in some ways these objections miss the point. “Winners Take All” is a splendid polemic that is all the better for simplifying and exaggerating.

Mr Giridharadas writes brilliantly on the parasitic philanthropy industry that somehow manages to hold its meetings in desirable resorts (Davos in the ski season, Bellagio in the summer) rather than in Detroit or Lagos. In one particularly stomach-turning section he reports on a luxury cruise, Summit at Sea, where various big-wigs discuss ways to improve the world while sitting in the well of the Bliss Ultra Lounge. “The boat’s not about getting drunk and getting naked,” a motivational speaker intones. “Well, it’s sort of about that. But it’s also about social justice.”

He produces worrying case studies that illustrate his theme of companies creating big social problems and then offering sticking-plaster solutions in the form of philanthropy. For example, Purdue Pharma has an impressive record of providing grants that “encourage the healthy development of youth by reducing high-risk behaviours such as substance abuse”. But one reason that the company can afford such largesse is that it has made a fortune from marketing OxyContin, a drug that, thanks to over-prescription, is at the heart of America’s opioid epidemic.

The only genuine failure of this otherwise excellent screed is that Mr Giridharadas does not push his argument further. He rightly goes beyond inequality of wealth to address inequality of power: how win-win fixes invariably take problems out of the political realm and sub-contract them to unaccountable global elites. But he says nothing about the fascinating issue of inequality of esteem.

The Davos elite is not content with hoarding an inflated proportion of the world’s wealth and power. It is trying to appropriate an outsize share of the world’s esteem by reinventing philanthropy in its own techy and globe-trotting image. It is not just Davos Man’s vices that are fuelling the populist fire. It is his virtues too. ■



Native American history

Still beating

The Heartbeat of Wounded Knee. By David Treuer. *Riverhead Books*; 512 pages; \$28. To be published in Britain by Corsair in March; £25

ACCORDING TO A convenient myth dating back to the 19th century, Native Americans were doomed to vanish, except for a few hold-outs on remote and poverty-stricken reservations. A corrective is urgently required, argues David Treuer, an anthropologist, novelist and member of the Ojibwe people, in his new survey of “Indian country” since the massacre at Wounded Knee in 1890.

That attack on Lakota Sioux by the 7th Cavalry killed at least 150 people and marked the last major armed conflict between Indian tribes and the federal government. For many Americans, it also came to signify the end of Native culture itself, due in part to a hugely influential book, “Bury My Heart at Wounded Knee”. Published in 1970, the book held that by 1890 “the culture and civilisation of the American Indian was destroyed”. After growing up on the Leech Lake Reservation in Minnesota, Mr Treuer found this view not just wrong, but soul-crushing. His sweeping, essential history is “not about the heart that was buried in the cold ground of South Dakota, but rather about the heart that beats on.”

Like its predecessor, his account opens with a catalogue of murder, disease and displacement. His survey of Indian homelands and their destruction is dry but necessary, since many Americans of European descent are unacquainted with the facts

(some seem to regard the country as their patrimony alone). But it is in recounting more recent history that Mr Treuer’s storytelling skills shine. He salts a century’s-worth of wrangling over the rights guaranteed by 19th-century treaties with personal stories from numerous tribes.

A host of paternalistic programmes meant to solve the “Indian problem” mainly backfired, he shows. These included forced assimilation through boarding schools, which aimed to “kill the Indian” to “save the man”, the destruction of collective land-ownership on reservations through individual allotments (in which wealthy whites, more often than not, snapped up the best plots), and later manoeuvres that ended the legal status of some tribes.

Yet the schools, as well as military service in both world wars, had an inadvertent benefit: to forge a pan-Indian identity. Like other marginalised groups, Indians moved to the cities and began to organise. From 1970, through the activism of the American Indian Movement and legal training that helped define—and defend—their rights, tribes started to rebound. Indian culture experienced a rebirth.

Mr Treuer’s elegant handling of this complex narrative occasionally falters. For example, he omits to set out clearly how tribal sovereignty works. Only midway through do readers learn that federal funding for such things as Indian health and education “are not pity payments or proto-welfare”, but commitments established by treaty in exchange for the loss of 97% of ancestral lands. That provenance refutes the frequent and mistaken assumption that most Native Americans are on the dole.

But his writing sings when he celebrates recent gains. By 1900 a Native population estimated to have numbered 5m when Christopher Columbus arrived had dropped to 237,000; the census of 2010 counted 2m, plus 3m identifying as partly Native. Casinos are giving some of America’s more than 500 tribes an economic boost. These days, enterprising Native Americans “actively remember and promote indigenous knowledge”; Mr Treuer introduces several, including a Sioux master chef and young women who extol healthy ways of life as a form of “warrior strength”. He ends with the Standing Rock pipeline protest of 2016 (pictured), the largest gathering of Native Americans since the battle of the Little Bighorn in 1876, which catapulted their struggle into national headlines for the first time in decades.

How Americans imagine their future depends on how they see their past, Mr Treuer argues. In a year in which, for the first time, two Native American women have taken seats in Congress, it is possible to infer that his community has not only survived, but begun to thrive again. ■

New American fiction

Above us only sky

The Dakota Winters. By Tom Barbash. Ecco; 336 pages; \$26.99. Scribner; £14.99

ANTON WINTER leads a charmed life. As a rich and restless 23-year-old in New York in 1980, he drinks martinis at the Plaza, takes meetings at the Algonquin and snorts coke in club bathrooms. He lives in the Dakota, Manhattan's most coveted address, where Roberta Flack and Leonard Bernstein rub shoulders in the lift. And he has a job his peers would kill for, producing a talk show on which celebrities wisecrack and bare their souls. The only problem is that he owes everything to his famous father, Buddy Winter, the show's star.

"The Dakota Winters", Tom Barbash's new novel, is about fathers and sons, the perniciousness of fame and the challenge of second acts. It is also about the grit and glamour of the city at a time when rents were affordable and muggings rife. Much of the drama involves Anton's ambivalent role in Buddy's return to the airwaves after a two-year hiatus. His previous show ended abruptly when he asked, mid-broadcast, "What the fuck am I doing here?" Buddy walked off the set, had a nervous breakdown and travelled the world; now he feels ready to go back on camera—but only with his son's help.

Meanwhile Anton develops a friendship with none other than John Lennon, a fellow Dakota resident, who seems to see him for the man he wants to be, not merely as a facilitator of his father's charms. The fact that Lennon's own comeback will be cut short by his imminent death (at the Dakota's entrance) steps the story in dramatic irony.

This book goes down like a quaffable wine—easy and engaging, if not terribly complex. Mr Barbash has a habit of spoon-feeding his themes with somewhat unlikely dialogue, such as when Anton's sister warns him that "it's [Buddy's] life story you're writing, and pretty soon you've got to begin writing your own". Those who recall spending their early 20s as self-conscious buffoons may tire of Anton's relentless winning—at work, romantically and so on. It is not for nothing that the most beloved protagonists tend to be outsiders and losers, or bigshots who fall from grace.

Still, Mr Barbash recreates an inviting world. And he observes clearly the insidious human tendency to turn people into idols, only to topple them. "They don't want to even bloody listen to us," Lennon says in the novel. "They want our souls." ■

Urban photography

A schoolroom in the Village

NEW YORK

For 60 years, Alex Harsley has chronicled city life

AT THE 4TH Street Photo Gallery on the corner of the Bowery, silver-gelatin prints are strung together like clothes on a laundry line. There are portraits of Muhammad Ali and Jean-Michel Basquiat, plus a series of vintage cityscapes meticulously captured over 60 years by Alex Harsley, an unsung doyen of New York photography.

The city has been Mr Harsley's home since 1948, when, aged ten, he moved there from South Carolina. He took his first photograph ten years later, and became the first black photographer to work for the city's district attorney's office. His scintillating pictures freeze moments in New York's evolution from the 1950s to the present. "It could start with the smell of something burning," he says of his method. "And then you see a family sitting on the steps of a funeral home pensively looking at the firemen going through their routine."

Some of the scenes in the collection were captured from the window of his old apartment in Harlem; they include images of black activists, streets submerged in snow and shots of the Crown Heights riots of 1991. A.D. Coleman, a photography critic, says Mr Harsley has been able to capture the lives of minority groups by making himself "invisible". His aim has been to assemble these fragments into an extended history of the city.

Mr Harsley's gallery is a time capsule. But, as it has been for decades, it is also a hub for the city's artistic underworld. In the 1970s New York's photography scene was flourishing, but exclusive. As Mr Harsley puts it, "a number of great artists were swept aside" because they lacked connections. Nurturing talent became part of his mission. In 1971 he established The Minority Photographers, an outfit that helps up-and-coming artists exhibit their work. He opened his gallery two years later; many photographers have had their first shows there. Mr Harsley curated work by Andres Serrano and David Hammons, among others. "It was kind of a school for me," says Dawoud Bey, a photographer and one of the beneficiaries; "a one-room schoolhouse in the East Village."

"Sit down, start talking," Mr Harsley would tell his visitors. In recent years, though, the neighbourhood around his gallery has changed as rents have risen. Some venerable retailers have been forced out. But Mr Harsley, who turned 80 last year, describes himself as a survivor. On warm mornings he still pedals his bicycle across the George Washington Bridge; the vintage sports car he parks in front of the gallery is a neighbourhood attraction. These days he works late as he digitises his archive, and keeps the doors open till midnight. "The Lower East Side keeps me in line," he laughs.



Summer on East 4th Street



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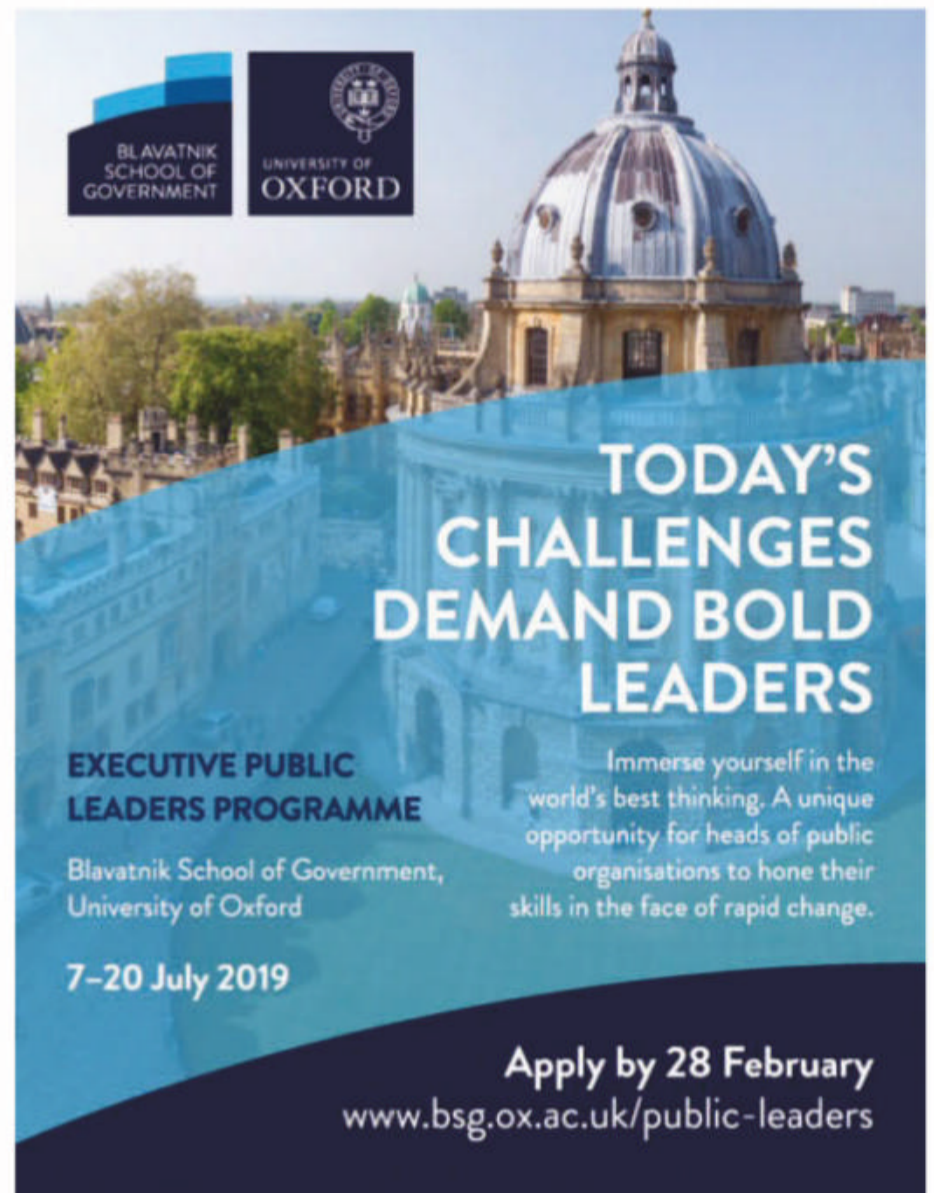
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Economic data

	Gross domestic product			Consumer prices		Unemployment rate		Current-account balance		Budget balance		Interest rates		Currency units			
	% change on year ago latest	quarter*	2018†	% change on year ago latest	2018†	%		% of GDP, 2018†	% of GDP, 2018†	10-yr gov't bonds latest,%	change on year ago, bp	per \$ Jan 23rd	% change on year ago				
United States	3.0	Q3	3.4	2.9	1.9	Dec	2.4	3.9	Dec	-2.5		-3.8	2.8	16.0	-		
China	6.4	Q4	6.1	6.6	1.9	Dec	2.0	3.8	Q4§	0.2		-3.5	3.0	§§	-92.0	6.79	-5.6
Japan	nil	Q3	-2.5	1.0	0.3	Dec	1.0	2.5	Nov	4.3		-3.8	nil		-6.0	110	0.7
Britain	1.5	Q3	2.5	1.3	2.1	Dec	2.3	4.0	Oct††	-3.9		-1.3	1.4		-4.0	0.77	-7.8
Canada	2.1	Q3	2.0	2.1	2.0	Dec	2.3	5.6	Dec	-2.6		-2.1	2.0		-26.0	1.34	-7.5
Euro area	1.6	Q3	0.6	1.9	1.6	Dec	1.7	7.9	Nov	3.5		-0.7	0.2		-33.0	0.88	-8.0
Austria	2.2	Q3	-1.9	2.6	1.9	Dec	2.1	4.7	Nov	2.1		-0.3	0.5		-23.0	0.88	-8.0
Belgium	1.6	Q3	1.2	1.4	2.3	Dec	2.3	5.6	Nov	0.5		-1.0	0.8		-3.0	0.88	-8.0
France	1.4	Q3	1.3	1.6	1.6	Dec	2.1	8.9	Nov	-0.8		-2.6	0.7		-18.0	0.88	-8.0
Germany	1.2	Q3	-0.8	1.4	1.7	Dec	1.9	3.3	Nov‡	7.6		1.4	0.2		-33.0	0.88	-8.0
Greece	2.4	Q3	4.3	2.1	0.6	Dec	0.8	18.6	Oct	-1.3		-0.1	4.2		44.0	0.88	-8.0
Italy	0.7	Q3	-0.5	0.9	1.1	Dec	1.2	10.5	Nov	2.6		-1.9	2.8		88.0	0.88	-8.0
Netherlands	2.4	Q3	0.6	2.5	2.0	Dec	1.6	4.4	Dec	10.3		1.2	0.3		-26.0	0.88	-8.0
Spain	2.5	Q3	2.2	2.5	1.2	Dec	1.7	14.7	Nov	1.0		-2.7	1.4		-7.0	0.88	-8.0
Czech Republic	2.4	Q3	2.4	2.8	2.0	Dec	2.2	1.9	Nov‡	0.8		1.1	1.9		6.0	22.6	-8.6
Denmark	2.4	Q3	2.9	1.0	0.8	Dec	0.8	3.9	Nov	6.2		-0.4	0.2		-42.0	6.56	-7.6
Norway	1.1	Q3	2.3	1.7	3.5	Dec	2.7	4.0	Oct††	8.0		7.0	1.8		4.0	8.59	-8.8
Poland	5.7	Q3	7.0	5.1	1.1	Dec	1.7	5.9	Dec§	-0.4		-0.9	2.8		-48.0	3.77	-10.1
Russia	1.5	Q3	na	1.7	4.3	Dec	2.9	4.8	Nov§	5.5		1.6	8.4		95.0	66.1	-14.7
Sweden	1.7	Q3	-0.9	2.3	2.0	Dec	2.0	5.5	Nov§	2.2		0.9	0.5		-44.0	9.02	-11.1
Switzerland	2.4	Q3	-0.9	2.6	0.7	Dec	0.9	2.4	Dec	9.6		0.9	-0.1		-15.0	1.00	-4.0
Turkey	1.6	Q3	na	3.1	20.3	Dec	16.4	11.6	Oct§	-4.5		-1.9	15.8		361	5.29	-28.7
Australia	2.8	Q3	1.0	3.0	1.9	Q3	2.0	5.0	Dec	-2.4		-0.6	2.3		-55.0	1.40	-10.7
Hong Kong	2.9	Q3	0.3	3.4	2.6	Dec	2.4	2.8	Dec††	3.0		2.0	2.0		-4.0	7.85	-0.4
India	7.1	Q3	3.3	7.4	2.2	Dec	4.0	7.4	Dec	-2.8		-3.6	7.6		16.0	71.3	-10.6
Indonesia	5.2	Q3	na	5.2	3.1	Dec	3.2	5.3	Q3§	-2.8		-2.6	8.1		191	14,180	-6.0
Malaysia	4.4	Q3	na	4.7	0.2	Nov	0.8	3.3	Nov§	2.3		-3.7	4.1		12.0	4.14	-5.1
Pakistan	5.4	2018**	na	5.4	6.2	Dec	5.2	5.8	2018	-5.7		-5.4	13.3	†††	536	139	-20.4
Philippines	6.1	Q4	6.6	6.2	5.1	Dec	5.3	5.1	Q4§	-2.4		-2.9	6.5		44.0	52.8	-3.1
Singapore	2.2	Q4	1.6	3.2	0.5	Dec	0.5	2.1	Q3	19.1		-0.5	2.2		8.0	1.36	-2.9
South Korea	3.2	Q4	3.9	2.5	1.3	Dec	1.6	3.4	Dec§	4.7		0.7	2.0		-68.0	1,127	-5.1
Taiwan	2.3	Q3	1.5	2.6	nil	Dec	1.4	3.7	Dec	12.9		-0.7	0.8		-21.0	30.9	-5.4
Thailand	3.3	Q3	-0.1	4.1	0.4	Dec	1.2	1.0	Nov§	6.8		-3.0	2.2		-9.0	31.7	0.3
Argentina	-3.5	Q3	-2.7	-2.0	47.1	Dec	34.3	9.0	Q3§	-6.0		-5.5	11.3		562	37.5	-48.5
Brazil	1.3	Q3	3.1	1.2	3.7	Dec	3.7	11.6	Nov§	-0.8		-7.1	7.2		-156	3.80	-15.0
Chile	2.8	Q3	1.1	4.0	2.6	Dec	2.4	6.8	Nov§††	-2.5		-2.0	4.3		-25.0	673	-9.4
Colombia	2.6	Q3	0.9	2.6	3.2	Dec	3.2	8.8	Nov§	-3.2		-2.4	6.8		40.0	3,149	-9.4
Mexico	2.5	Q3	3.4	2.2	4.8	Dec	4.9	3.6	Dec	-1.6		-2.5	8.7		115	19.1	-1.7
Peru	2.3	Q3	-8.3	3.7	2.2	Dec	1.3	5.7	Dec§	-2.2		-2.4	5.6		64.0	3.33	-3.3
Egypt	5.4	Q2	na	5.3	11.9	Dec	16.7	10.0	Q3§	-1.1		-9.5	na		nil	17.9	-0.9
Israel	2.9	Q3	2.3	3.4	0.8	Dec	0.8	4.1	Nov	1.7		-3.1	2.2		55.0	3.67	-7.1
Saudi Arabia	-0.9	2017	na	1.5	2.2	Dec	2.6	6.0	Q2	6.3		-5.0	na		nil	3.75	nil
South Africa	1.1	Q3	2.2	0.8	4.5	Dec	4.6	27.5	Q3§	-3.1		-3.9	8.8		50.0	13.8	-12.8

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

Markets

In local currency	Index Jan 23rd	% change on:	
		one week	Dec 29th 2017
United States S&P 500	2,638.7	0.9	-1.3
United States NAScomp	7,025.8	-0.1	1.8
China Shanghai Comp	2,581.0	0.4	-22.0
China Shenzhen Comp	1,316.3	-0.4	-30.7
Japan Nikkei 225	20,593.7	0.7	-9.5
Japan Topix	1,547.0	0.6	-14.9
Britain FTSE 100	6,842.9	-0.3	-11.0
Canada S&P TSX	15,208.3	0.6	-6.2
Euro area EURO STOXX 50	3,112.1	1.1	-11.2
France CAC 40	4,840.4	0.6	-8.9
Germany DAX*	11,071.5	1.3	-14.3
Italy FTSE/MIB	19,400.2	-0.4	-11.2
Netherlands AEX	507.5	1.5	-6.8
Spain IBEX 35	9,128.8	2.4	-9.1
Poland WIG	60,788.9	1.3	-4.6
Russia RTS, \$ terms	1,186.5	2.9	2.8
Switzerland SMI	8,957.2	0.9	-4.5
Turkey BIST	100,141.0	5.0	-13.2
Australia All Ord.	5,908.7	0.3	-4.2
Hong Kong Hang Seng	27,008.2	0.4	-9.7
India BSE	36,108.5	-0.6	6.0
Indonesia IDX	6,451.2	0.6	1.5
Malaysia KLSE	1,688.1	0.9	-6.0

	index Jan 23rd	% change on:	
		one week	Dec 29th 2017
Pakistan KSE	40,057.9	2.0	-1.0
Singapore STI	3,171.1	-1.8	-6.8
South Korea KOSPI	2,127.8	1.0	-13.8
Taiwan TWI	9,846.4	0.8	-7.5
Thailand SET	1,617.4	2.5	-7.8
Argentina MERV	34,819.1	2.3	15.8
Brazil BVSP	96,558.4	2.3	26.4
Mexico IPC	43,679.7	-0.3	-11.5
Egypt EGX 30	13,506.7	nil	-10.1
Israel TA-125	1,375.7	0.5	0.8
Saudi Arabia Tadawul	8,466.1	0.7	17.2
South Africa JSE AS	53,915.2	0.2	-9.4
World, dev'd MSCI	1,980.1	0.7	-5.9
Emerging markets MSCI	1,011.6	0.2	-12.7

US corporate bonds, spread over Treasuries

	Basis points	
	latest	Dec 29th 2017
Investment grade	183	137
High-yield	498	404

Sources: Datastream from Refinitiv; Standard & Poor's Global Fixed Income Research. *Total return index.

Commodities

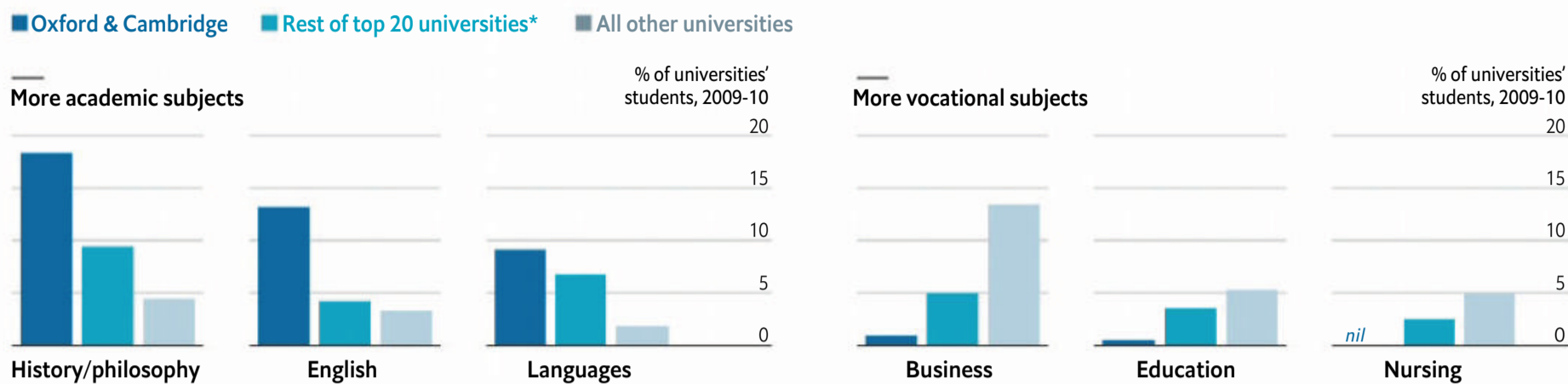
The Economist commodity-price index

2005=100	% change on			
	Jan 15th	Jan 22nd*	month	year
Dollar Index				
All Items	137.9	138.5	1.5	-8.4
Food	148.3	146.9	1.7	-2.3
Industrials				
All	127.0	129.6	1.4	-14.6
Non-food agriculturals	121.0	122.6	2.8	-14.1
Metals	129.6	132.7	0.8	-14.8
Sterling Index				
All items	195.8	194.3	-0.4	-0.9
Euro Index				
All items	150.0	151.6	2.0	-0.8
Gold				
\$ per oz	1,289.4	1,281.0	1.2	-4.2
West Texas Intermediate				
\$ per barrel	52.1	53.0	24.6	-17.8

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.

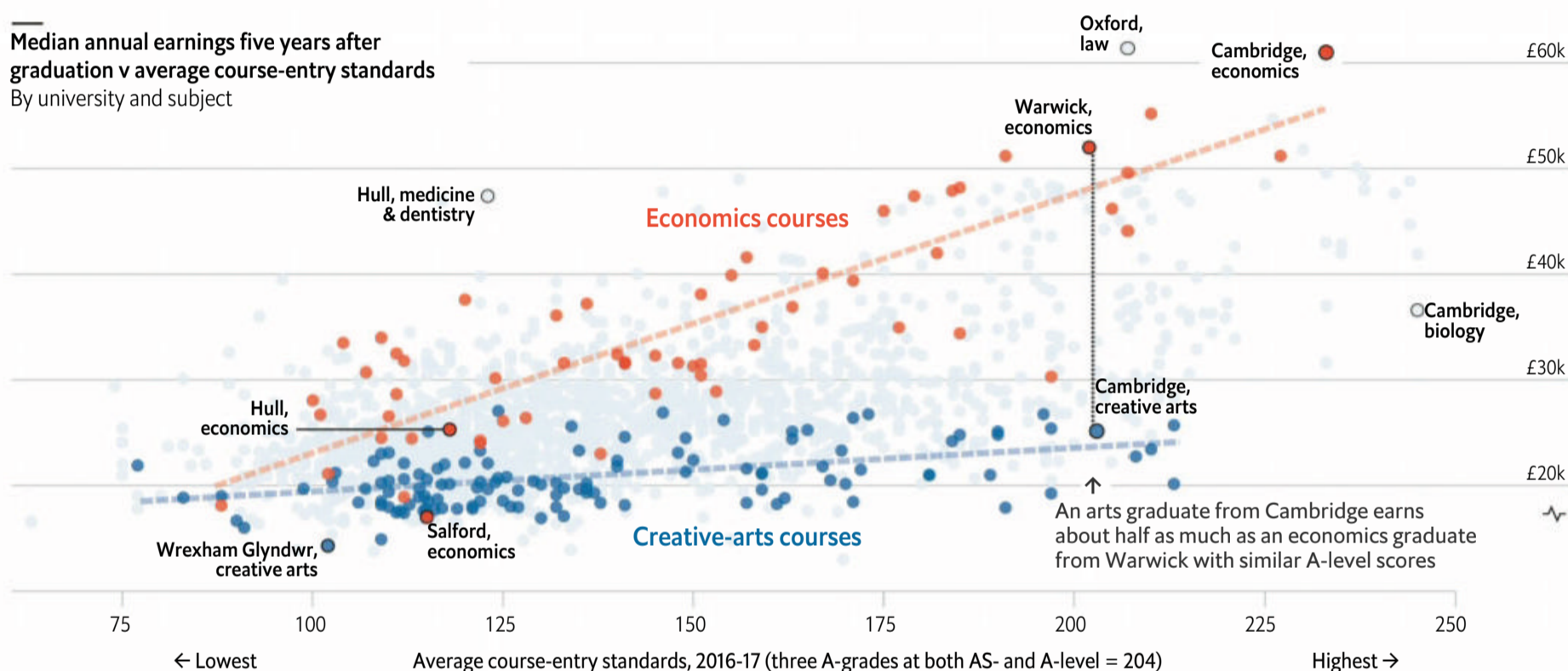
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Relatively few students at Britain's top universities study vocational fields



Graduate earnings vary more by course at higher-ranked universities

Median annual earnings five years after graduation v average course-entry standards
By university and subject



Sources: UCAS; Department for Education *By UCAS entry standards

British universities

Money and meaning

Studying a “useless” field at Oxbridge costs a mint in forgone earnings

SCPTICS OF HIGHER education often complain that universities offer too many frivolous degrees with little value in the workplace. Since elite universities tend to produce higher-earning graduates than less selective institutions do, you might expect them to teach more practical courses. Yet data from Britain's department for education show the opposite. Undergraduate students at prestigious universities are more likely to study purely academic fields such as philosophy and classics, whereas those at less choosy ones tend to pick vocational topics such as business or nursing.

What could explain this seeming con-

tradition? One reason is that employers treat a degree from a top university as a proxy for intelligence. This means that students at elite institutions can study bookish subjects and still squeak by financially. The median Cambridge graduate in a creative-arts subject—the university's least lucrative group of courses, including fields such as music—earns around £25,000 (\$32,400) at age 26. Economics students from less exalted universities, such as Hull, make a similar amount.

Yet even though Oxbridge students can pretend to read “Ulysses” for years and still expect a decent salary, they end up paying a large opportunity cost by pursuing the arts. That is because employers reserve the highest starting wages for students who both attended a leading university and also studied a marketable subject. Cambridge creative-arts graduates earn £11,000 more at age 26 than do those from Wrexham Glyndwr University, whose arts alumni are the lowest-earning in Britain. In contrast, Cambridge economics graduates make

£44,000 more than do those from the University of Salford, where the economics course is the country's least remunerative.

Many gifted arts students would struggle to crunch numbers. But for those who can excel at both, the cost of sticking with the arts, in terms of forgone wages, is steep. Cambridge creative-arts students have A-level scores close to those of economics students at Warwick, but earn about half as much. That is tantamount to giving up an annuity worth £500,000.

Who can afford such indulgence? The answer is Oxbridge students, who often have rich parents. At most universities, students in courses that lead to high-paying jobs, such as economics and medicine, tend to come from wealthier families, partly because such applicants are more likely to have the examination scores necessary to be accepted. At Oxbridge, however, no such correlation exists. History and philosophy students there come from richer parts of Britain, on average, than their peers studying medicine do. ■



To Parnassus

Marcel Azzola, champion of the accordion, died on January 21st, aged 91

THE HISTORY of the accordion is not a happy one. For decades serious musicians have mocked it as the discordant, breathy, vulgar voice of peasants, clowns and fairground hucksters: an endlessly jovial or sentimental repertoire of folksy tunes. The wheeze of this “piano with braces” has become the sound people dread to hear in restaurants or at railway stations, accompanied by the hopeful chink of coins in a hat. So when Marcel Azzola was asked, in September 1968, to play his accordion to accompany Jacques Brel, the great Belgian *chansonnier*, at a recording of his song “Vesoul”, he was hardly surprised by a line in the lyrics: “I can’t stand accordions.”

But of course he played, because he liked Brel, with whom he sometimes drank a beer or two after recordings. And he unleashed such a torrent of notes, at such speed, to illustrate the potential of his own instrument to dazzle as well as annoy, that Brel was astonished. “*Chauffe, Marcel, chauffe!*” he cried, in that voice raddled with *ennui* and four packs of cigarettes a day. Hot it up, take it away. The phrase passed into the language, and after that Mr Azzola, to his surprise, found himself famous.

He had always been a great player, but in the background way of many accordionists, in concerts or in film. His playing accompanied Edith Piaf in “Sous le Ciel de Paris”, especially in “L’Accordéoniste”, where “this strange little guy” with his “long wiry fingers” got under the singer’s skin; and Jacques Tati, as Mr Hulot, riding his Solex in “Mon Oncle”. His sound, therefore, had already woven itself into the consciousness of France. But apart from “Vesoul”, which he later turned into a solo concert piece, he was not a grand-standing player. His style was modest, impulsive and intense, full of concentration, but also touched with wonder, as though the instrument he played every day could still surprise him. He was less fond of its festive, glittery mood than of its quieter register. Although he was friends for 60 years with André Verchuren, “the

king of the accordion” in its street guise, that sharp, discordant quality, “anti-musical” to his ears, did not truly appeal to him. His aim was to take the accordion very much higher up the slopes of Parnassus, towards serious respect.

“Noble” was a good word: the noble tradition, since the 19th century, of Italian immigrants settling in France, bringing their accordions with them and setting up workshops to make more. His own family were immigrants, from a village near Bergamo. His father, a builder, was also a once-a-week mandolin-player, and put young Marcel on the violin first, like his sisters. But accordions were plentiful in the mean streets of the 20th arrondissement, and he soon switched over. Some of his favourite instruments, Crosios and Cavalognos, came from the old workshops. His teachers, too, Attilio Bonhommi and Médard Ferrero, were Italian émigrés. Ferrero’s method for accordionists was as celebrated as Czerny’s for the piano, and he found in him all the seriousness of classical musicianship, even without a classical repertoire. Ferrero dedicated to him his “Mazurka du Diable”, as if he already anticipated breathtaking turns from him.

Nonetheless, the main point of a young man learning the accordion (as his father kept telling him) was to earn a living, and this he just about did round the brasseries and *dancings* of Paris, becoming a player of the people’s accordion despite himself. He grew expert at transposing favourite classical pieces to the accordion, as drunken customers requested them. For years his recordings on the Barclay label were of popular tunes and *chansons*; his producers told him that customers expected only that from his box of bellows and reeds. But he never ceased taking in other, more fascinating styles. From the jazz clubs he frequented he soaked up bebop, swing and a whole new universe of improvisation for the accordion, until he was playing for Django Reinhardt and with Stéphane Grappelli. A stand-in gig led to a chance encounter with tango, which so enchanted him that he bought a bandoneon, though he could barely afford it, to study it himself.

The accordion and its variants, he often pointed out, were honoured more in Argentina than anywhere else in the world. But he fought his corner in France, and it paid off. As a professor for 20 years at the national music school in Orsay, he campaigned mightily for accordion to be included as a course at the Paris Conservatoire. He had the delight not only of achieving that, in 2002, but of sitting on the jury that chose the first *prof d’accordéon*.

Rosewood and gold

If anyone felt that was not quite right and proper, he had only to show them his collection. He possessed dozens of accordions, many rich and rare. Most came from Parisian antique shops, some were presents; one, a small Crosio, was given to him by a taxi driver who would take it to play while he waited for customers. He displayed them in brass-framed glass cabinets, and online he gave virtual tours. All the latent nobility of the instrument was on display there: its ancient lineage, from Laotian and Chinese metal-reed pipes, and its aristocratic birth in the early 19th century, as an instrument for fashionable drawing rooms. These accordions had bodies of rosewood, tortoiseshell and walnut, inlaid with ivory, copper and gold; they bore mythical scenes and bas-reliefs of great composers. He would walk among them marvelling, stroke them, play them carefully, overjoyed and moved to make music on them.

Many were decorated with pearls, a fashion that lasted. Other early pieces had marine motifs. Something both he and Brel had noticed, for Brel too had a great tenderness for the accordion, was the connection between this instrument and the sea. It carried within it somehow the mood of ports and oceans, the throb of the waves; music seemed to flow and be drawn out across it. On Brel’s last sea-tinged album, “Les Marquises”, Mr Azzola played again, this time in a different mode. His accordion could still sting, but was often softer, naturally taking its place within and alongside the woodwinds and the strings. And that was as it should be. ■

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