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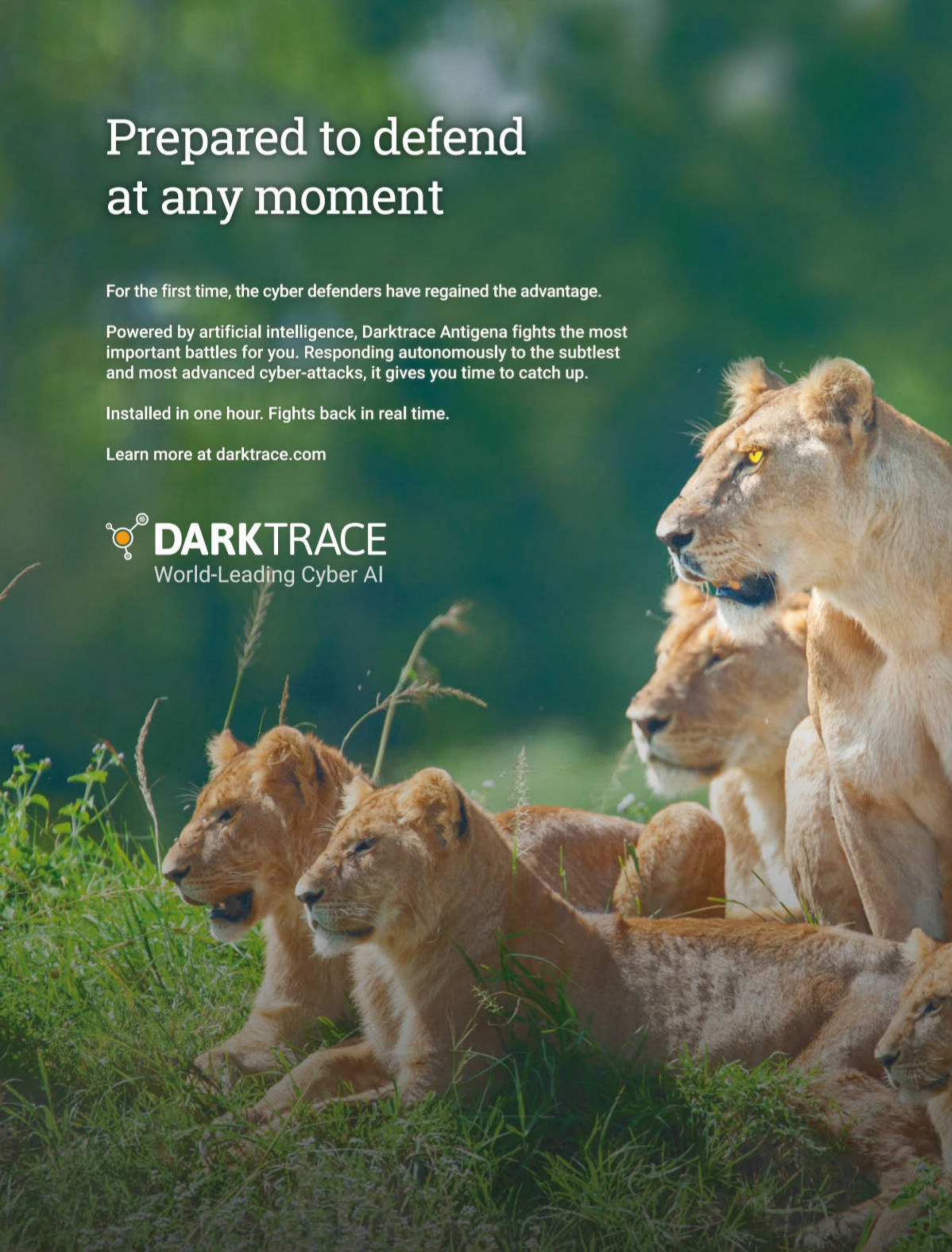
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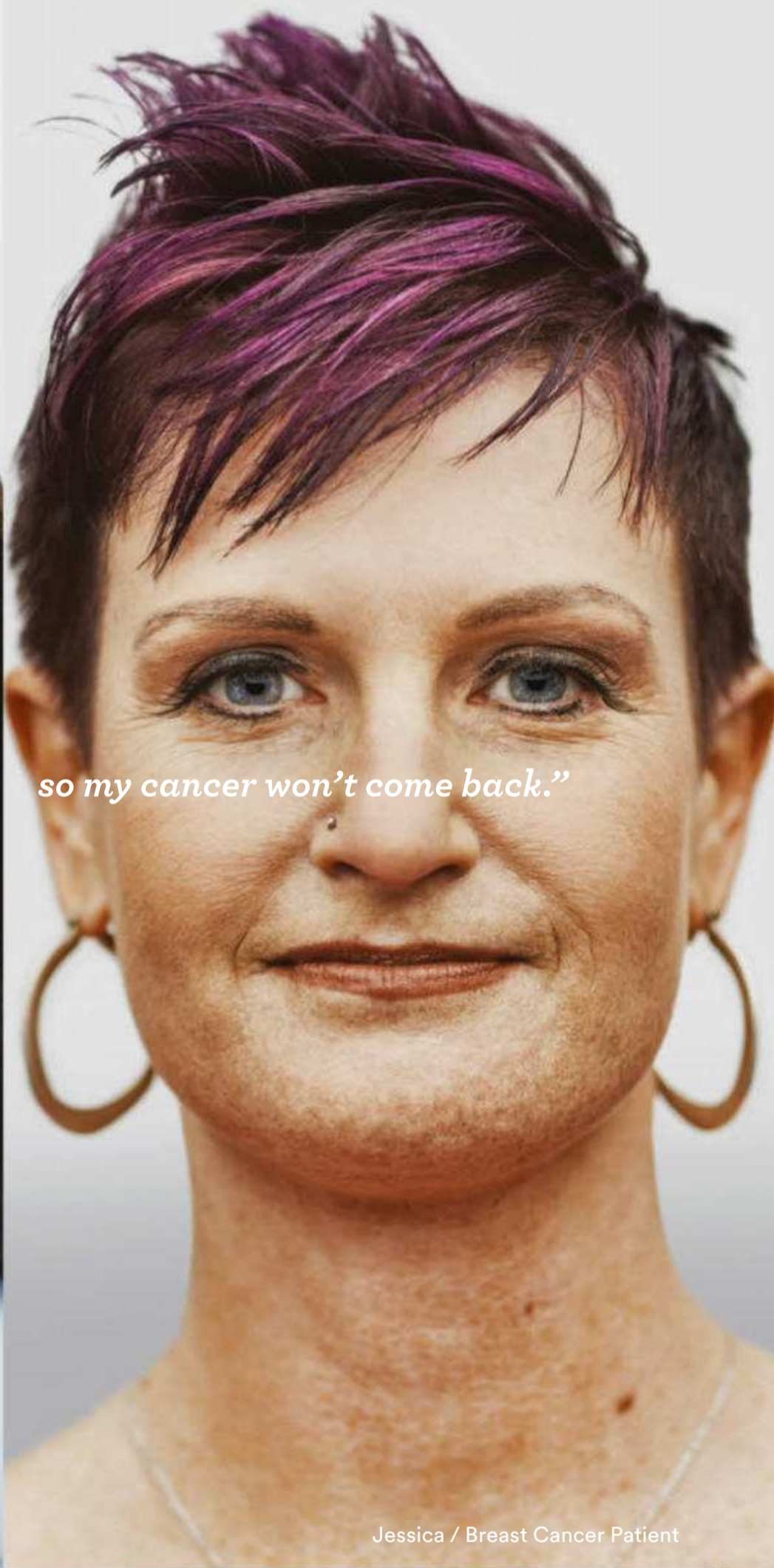
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Politics



Jair Bolsonaro, a right-wing former army captain, led the race for **Brazil's** presidency after a first round of voting. He got 46% of the vote. In the run-off he will face Fernando Haddad, the nominee of the left-wing Workers' Party, who got 29%. In the congressional election Mr Bolsonaro's Social Liberal Party jumped from eight lower-house seats in the outgoing congress to 52 in the new one, becoming the second-largest party.

A judge in California blocked plans by the Trump administration to deport some **migrants** from El Salvador, Haiti, Nicaragua and Sudan who had enjoyed "temporary protected status" in America. The administration said it had ended TPS for citizens of the four countries because the emergencies that had justified giving them refuge in America had ended.

In **Venezuela**, Fernando Albán, a councilman whom the regime accused of participating in an attempt to assassinate President Nicolás Maduro by drones, died in the custody of the country's intelligence service. The government said he killed himself by jumping from the tenth floor of the agency's headquarters. Opposition politicians accused the government of murder.

Keiko Fujimori, who leads Popular Force, the largest party in **Peru's** congress, was detained by prosecutors investigating undeclared campaign donations. A court recently reversed a pardon granted to her father, Alberto Fujimori, a former president, who was

sentenced to 25 years in prison for human-rights crimes.

China can't help

The government of **Pakistan** turned to the IMF for a loan to help ease a balance-of-payments crisis. Imran Khan, the prime minister of two months, had previously suggested that his government would be able to borrow from "friendly countries" instead.

India's #MeToo movement gathered steam, as a number of women accused film executives, actors and newspaper editors of sexually harassing them. Four women have complained about the conduct of M.J. Akbar, a former journalist who is now a junior minister.

A former president of **South Korea**, Lee Myung-bak, was sentenced to 15 years in jail for corruption, the second such conviction of a previous head of state this year.

The authorities in **Hong Kong** refused to renew the work visa of Victor Mallet, a British journalist based in the territory. It gave no reason for the decision, but officials had objected to Mr Mallet's hosting of a talk at the Foreign Correspondents' Club by the leader of a pro-independence party, which has since been banned.

China confirmed that it had arrested the Chinese president of Interpol, Meng Hongwei. Mr Meng disappeared in late September after returning to Beijing for a visit. China eventually said that he was being investigated for bribery. Interpol was informed that he had resigned as its head.

Tentacles of a scandal

South Africa's finance minister, Nhlanhla Nene, resigned after testifying that he had met the Gupta family, which is at the centre of allegations of cronyism and "state capture", more often than he had previously disclosed. There was no indication that Mr Nene had done anything illegal or immoral. He was replaced by a former governor of the central bank, Tito Mboweni.



A presidential election took place peacefully in most parts of **Cameroon**, although violence was reported in English-speaking regions. Counting is expected to take two weeks.

Turkish officials said they think Jamal Khashoggi, a prominent **Saudi** journalist and government critic, was murdered and dismembered inside the Saudi consulate in Istanbul by a team of Saudi agents on orders from the royal court.

An increasingly dangerous job

Viktoria Marinova, a journalist, was raped and murdered in **Bulgaria**. Last month, she hosted a television show reporting on a big fraud case involving the misuse of EU subsidies. This is the third recent murder in Europe of a journalist who had been investigating corruption.

Two **astronauts**, a Russian and an American, en route to the International Space Station, survived the malfunction of their Soyuz launch rocket. Their capsule separated from the booster and landed safely in Kazakhstan.

Britain's Supreme Court ruled in favour of a **Christian-owned bakery** in Northern Ireland that refused to make a cake with a slogan supporting gay marriage, which remains illegal in the province. The judges found that the bakers had not refused to serve the customer who ordered the cake on the basis of his sexuality, and were justified on free-speech grounds in not baking the message he wanted displayed on it.

The UN-backed Intergovernmental Panel on Climate Change urged governments to

take action to keep the **Earth's temperature** to within 1.5°C (2.7 °F) of pre-industrial levels, a tougher goal than keeping the temperature "well below" 2°C that was agreed to in the Paris climate accord of 2015.

Hurricane Michael tore through Florida's Panhandle. The category-four storm was the strongest to hit the region in a century. It caught forecasters off guard when it intensified rapidly over the Gulf of Mexico in just a couple of days.

A conservative majority

Brett Kavanaugh started work as a justice on America's Supreme Court after the Senate voted 50-48 to approve him, the narrowest margin for confirming a judge to the court since 1881. Mr Kavanaugh appointed an all-female team of law clerks to his office, a first for the court.

A Chinese intelligence officer was extradited from Belgium to the United States, where he was charged with **economic espionage** for trying to appropriate trade secrets from American aviation companies. It is the first time that an alleged Chinese spy has been brought to America to stand trial.



The White House began the search for a new American ambassador to the UN after **Nikki Haley** said she would step down from the job at the end of the year.

Donald Trump said he had no plans to fire **Rod Rosenstein** as deputy attorney-general. Mr Rosenstein was thought to be on his way out after it was reported that he had mooted removing Mr Trump from office through constitutional means.

Business

Stockmarkets around the world tumbled. Investors were spooked by a number of factors, including fears that trade tensions between America and China were starting to hurt profits, especially at technology companies. Apple's share price dropped by 4.6% in one day. Asian markets fared particularly badly. The Shanghai Composite fell by 5.2% on a single day to near a four-year low. Hong Kong's Hang Seng and Tokyo's Topix index recorded similar plunges.

Of interest

Concerns about rising interest rates in America also weighed on sentiment. Ten-year Treasury-bond yields rose to their highest point since 2011. In a report, the IMF warned that the divergence between advanced and **emerging economies** has grown over the past six months.

China's central bank pumped 750bn yuan (\$108bn) into the economy by reducing the amount of cash that banks have to hold as reserves, after figures showed that investment and exports have weakened. The trade war with America, which has raised tariffs on Chinese imports, and a strong dollar have increased the pressure on policymakers to bolster growth.

Facing a shareholders' revolt, **Unilever** ditched its proposal to shed its London headquarters and retain Rotterdam as its sole base. The Anglo-Dutch consumer-goods group wants to simplify its corporate structure but came under pressure from British fund managers fearful that the move would have made Unilever ineligible for inclusion in the FTSE 100 index.

The competition authority in Britain launched an investigation into whether the dominance of the Big Four **accountancy firms** is driving down auditing standards. A number of spectacular business failures, such as the collapse of

Carillion, a global construction company, has increased the scrutiny of auditors' practices.

Google faced more pressure following the news that it had failed to disclose a bug in its Google+ social network. The company discovered in March that the personal details of up to 500,000 users may have been exposed to developers of third-party apps. It will shut down Google+, though that did little to stop observers comparing the transgression to Facebook's Cambridge Analytica scandal.

America's Justice Department gave the go-ahead for the \$69bn merger of **CVS Health** and **Aetna**, which will reshape the health-care industry. The regulator approved the deal after Aetna agreed to sell its Medicare drug business.

Just a week after settling with the Securities and Exchange Commission over the tweets he published claiming he would take **Tesla** private, Elon Musk courted more controversy by describing the regulator as the "Shortseller Enrichment Commission". David Einhorn, a prominent short-seller of the electric-car maker's stock, said Mr Musk's erratic behaviour risked turning the company

into another Lehman Brothers. The company's share price dropped to its lowest level in 18 months.

Meanwhile the share price of **Nio**, a Chinese electric-car maker which recently listed on the stockmarket, soared by a fifth upon the news that Tesla's biggest outside investor, Baillie Gifford, a fund manager, has amassed an 11.4% stake in the Shanghai-based company.

A brake in demand for cars in China caused **Jaguar Land Rover** to plan a two-week closure of its main assembly plant in Britain. That prompted a sell-off in the shares of Tata Motors, JLR's parent company. **Volkswagen** said its sales in China had dropped by 10% in September, adding to poor sales in Europe, where many of its vehicles do not meet tougher emissions standards.

The target of Britain's first **Unexplained Wealth Order** lost her battle to retain her anonymity. Zamira Hajiyeva, the wife of a former banker jailed in Azerbaijan for embezzlement, may now have to explain to the High Court how the London mansion she owns was paid for. She also spent £16m (\$21m) in Harrods, just a short walk from her home,

over the course of ten years. Being the target of an order does not imply wrongdoing.

American employers added 134,000 **workers** to the payroll in September, the smallest increase in a year. America's unemployment rate fell to 3.7%, the lowest since 1969.

Phew! What a scorcher

Britain

GDP, latest three months
% change on previous three months



The long hot summer injected a bit of heat into the **British economy**. GDP grew at a robust rate of 0.7% for the three months to August, the same as the three months to July, which was the fastest pace since early 2017. Consumer spending on one-off events like the World Cup played its part, but construction also remained solid over the period. The outlook may not be so sunny as Brexit approaches.

For other economic data and news see Indicators section



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The next recession

When the downturn comes, toxic politics and constrained central banks will add to the risks



JUST a year ago the world was enjoying a synchronised economic acceleration. In 2017 growth rose in every big advanced economy except Britain, and in most emerging ones. Global trade was surging and America booming; China's slide into deflation had been quelled; even the euro zone was thriving. In 2018 the story is very different. This week stockmarkets tumbled across the globe as investors worried, for the second time this year, about slowing growth and the effects of tighter American monetary policy. Those fears are well-founded.

The world economy's problem in 2018 has been uneven momentum (see Finance section). In America President Donald Trump's tax cuts have helped lift annualised quarterly growth above 4%. Unemployment is at its lowest since 1969. Yet the IMF thinks growth will slow this year in every other big advanced economy. And emerging markets are in trouble.

This divergence between America and the rest means divergent monetary policies, too. The Federal Reserve has raised interest rates eight times since December 2015. The European Central Bank (ECB) is still a long way from its first increase. In Japan rates are negative. China, the principal target of Mr Trump's trade war, relaxed monetary policy this week in response to a weakening economy. When interest rates rise in America but nowhere else, the dollar strengthens. That makes it harder for emerging markets to repay their dollar debts. A rising greenback has already helped propel Argentina and Turkey into trouble; this week Pakistan asked the IMF for a bail-out (see Asia section).

Emerging markets account for 59% of the world's output (measured by purchasing power), up from 43% just two decades ago, when the Asian financial crisis hit. Their problems could soon wash back onto America's shores, just as Uncle Sam's domestic boom starts to peter out. The rest of the world could be in a worse state by then, too, if Italy's budget difficulties do not abate or China suffers a sharp slowdown.

Cutting-room floors

The good news is that banking systems are more resilient than a decade ago, when the crisis struck. The chance of a downturn as severe as the one that struck then is low. Emerging markets are inflicting losses on investors, but in the main their real economies seem to be holding up. The trade war has yet to cause serious harm, even in China. If America's boom gives way to a shallow recession as fiscal stimulus diminishes and rates rise, that would not be unusual after a decade of growth.

Yet this is where the bad news comes in. As our special report this week sets out, the rich world in particular is ill-prepared to deal with even a mild recession. That is partly because the policy arsenal is still depleted from fighting the last downturn. In the past half-century, the Fed has typically cut interest rates by five or so percentage points in a downturn. Today it has less than half that room before it reaches zero; the euro zone and Japan have no room at all.

Policymakers have other options, of course. Central banks could use the now-familiar policy of quantitative easing (QE), the purchase of securities with newly created central-bank reserves. The efficacy of QE is debated, but if that does not work, they could try more radical, untested approaches, such as giving money directly to individuals. Governments can boost spending, too. Even countries with large debt burdens can benefit from fiscal stimulus during recessions.

The question is whether using these weapons is politically acceptable. Central banks will enter the next recession with balance-sheets that are already swollen by historical standards—the Fed's is worth 20% of GDP. Opponents of QE say that it distorts markets and inflates asset bubbles, among other things. No matter that these views are largely misguided; fresh bouts of QE would attract even closer scrutiny than last time. The constraints are particularly tight in the euro zone, where the ECB is limited to buying 33% of any country's public debt.

Spending ceilings

Fiscal stimulus would also attract political opposition, regardless of the economic arguments. The euro zone is again the most worrying case, if only because Germans and other northern Europeans fear that they will be left with unpaid debts if a country defaults. Its restrictions on borrowing are designed to restrain profligacy, but they also curb the potential for stimulus. America is more willing to spend, but it has recently increased its deficit to over 4% of GDP with the economy already running hot. If it needs to widen the deficit still further to counter a recession, expect a political fight.

Politics is an even greater obstacle to international action. Unprecedented cross-border co-operation was needed to fend off the crisis in 2008. But the rise of populists will complicate the task of working together. The Fed's swap lines with other central banks, which let them borrow dollars from America, might be a flashpoint. And falling currencies may feed trade tensions. This week Steve Mnuchin, the treasury secretary, warned China against "competitive devaluations". Mr Trump's belief in the harm caused by trade deficits is mistaken when growth is strong. But when demand is short, protectionism is a more tempting way to stimulate the economy.

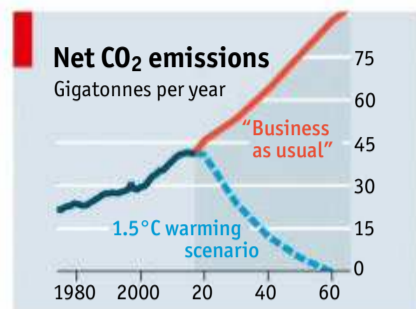
Timely action could avert some of these dangers. Central banks could have new targets that make it harder to oppose action during and after a crisis. If they established a commitment ahead of time to make up lost ground when inflation undershoots or growth disappoints, expectations of a catch-up boom could provide an automatic stimulus in any downturn. Alternatively, raising the inflation target today could over time push up interest rates, giving more room for rate cuts. Future fiscal stimulus could be baked in now by increasing the potency of "automatic stabilisers"—spending on unemployment insurance, say, which goes up as economies sag. The euro zone could relax its fiscal rules to allow for more stimulus.

Pre-emptive action calls for initiative from politicians, which is conspicuously absent. This week's market volatility suggests time could be short. The world should start preparing now for the next recession, while it still can. ■

Climate change

The temperature rises

A new report produces a mixture of alarm and apathy



FOR decades scientists have warned that rising atmospheric concentrations of greenhouse gases from the burning of fossil fuels risk adversely affecting the climate, increasing ocean acidity, the frequency of freak weather and other symptoms of

planetary ill-health. But it seemed that keeping the temperature within 2°C of pre-industrial levels, although disruptive, would probably leave Earth in a chronic but stable condition.

A report unveiled this week from the Intergovernmental Panel on Climate Change (IPCC), a UN-backed body that musters the science needed to inform policy, shows how optimistic that was. The survey was commissioned in 2015 by the then 195 signatories of the Paris climate agreement—which commits them to keep warming “well below” 2°C and to “pursue efforts towards 1.5°C”. The effects and technical feasibility of keeping warming within this tighter limit were the report’s focus (see Science and technology section). How it was put together, the message it contains and the reaction it elicited all matter.

A question of degree

First, the way it was assembled. Although the report presents no new science of its own, its survey of more than 6,000 studies is meticulous. With every passing year scientists amass more data about how the climate has already changed. And, as many people battered in Florida this week by Hurricane Michael will attest, it is changing faster than anyone foresaw even two decades ago. This new knowledge, together with improved understanding of the complex climate system, makes projections like those the IPCC has compiled more compelling. Uncertainties remain; individual research contained within the report may yet be challenged. But in study after study, page

after page, fact after fact, the evidence for anthropogenic climate change, long clear, is harder than ever to ignore.

The report’s message is also beyond doubt: the extra half a degree makes a big difference. Arctic summers could be ice-free once a decade in a two-degree world, but once a century in a one-and-a-half-degree one. Virtually all the ocean’s coral might be irreversibly wiped out in a two-degree world, rather than 70-90% if temperatures rise by less. Sea levels may rise an extra 10cm, washing away the livelihoods of millions more people. Permitting a rise of two degrees could also see an extra 420m people exposed to record heat. The 2°C target has been baked into climate policy for years—the number was first put forward by William Nordhaus, who shared the Nobel economics prize this week (see Free exchange). It is too lax.

Hitting either target would entail transforming economies at a breakneck pace. To achieve 1.5°C, the world would by 2050 need to eliminate all 42bn tonnes of carbon-dioxide in annual emissions. Renewables, including hydropower, would have at least to treble their share of electricity generation from today’s 25%. Internal-combustion engines, which power 499 out of 500 cars on the road today, would have to all but vanish. Progress is being made. The number of electric cars on the road is rising fast; green finance is gathering momentum; zero-carbon technologies are being developed. But the scale of the effort required is unprecedented.

That is why reaction to the IPCC’s report matters. Some European Union environment ministers want to adopt 1.5°C as a guide to policy before a UN summit in Poland in December. Their Australian counterpart called it “irresponsible” to phase out coal by 2050. Donald Trump, who plans to withdraw America from the Paris deal, has not read it. A mix of alarm and apathy has both galvanised efforts to secure a 2°C future, and also bedevilled them. A target of 1.5°C is no more likely to be met, but may nonetheless encourage the world to try harder. ■

Saudi Arabia

The fate of a journalist

Saudi Arabia is starting to look like an old-fashioned Arab dictatorship



IT HAS been over a week since Jamal Khashoggi, a prominent Saudi journalist and government critic (pictured), walked into the Saudi consulate in Istanbul to get paperwork for a marriage. No one has seen him since. Turkish officials say that he was killed by a team of Saudi assassins, who dismembered his body, on orders from the top of the royal court (see Middle East and Africa section). The Saudis retort that Mr Khashoggi left the building of his own accord. If so, when? Are there witnesses or written records? Why is there no security-camera

footage? And why did 15 Saudis fly in on private jets just before he disappeared, and leave shortly after? The Saudis must provide answers, or the world will assume the worst.

If it transpires that Mr Khashoggi has been killed, whether deliberately or in a botched kidnapping, it will strengthen the sense that Muhammad bin Salman, the Saudi crown prince and de facto ruler, is more of a rogue than a reformer. He has locked up thousands of activists. He detained a sitting prime minister of Lebanon, Saad Hariri, for two weeks in November. His long arm has already reached abroad. In March a women’s-rights campaigner, Loujain al-Hathloul, was detained in Abu Dhabi, whisked to Saudi Arabia and, later, thrown in jail. In September a Saudi satirist based in London claimed that he ▶▶

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▶ was beaten by goons who had been sent from Saudi Arabia.

Murdering a critic on foreign soil would be an escalation of a dismal trend. Unlike past Saudi royals, who allowed some debate and often sought to mediate between competing interests, Prince Muhammad rules as if only he has the answers. His brutish handling of even mild critics is overshadowing more admirable policies, which include curbing the religious police, letting women drive and encouraging them to work. As his regime starts to resemble an Arab nationalist dictatorship—socially liberal but centralised, paranoid and built on fear—his promise of a new, tolerant Saudi Arabia is receding.

Prince Muhammad's autocratic tendencies have economic consequences, too. He aims, ambitiously, to wean the kingdom off oil. But investors are warned off by the capricious way he takes decisions. Last year he locked up and seized assets from hundreds of businessmen, officials and princes in an "anti-corruption" drive that lacked even a hint of due process. His effort to spur the private sector is, oddly, top-down. The

planned stockmarket listing of part of Aramco, the state oil giant, suffered from Prince Muhammad's micromanagement and has been postponed indefinitely. Other grandiose projects, such as NEOM, a futuristic city staffed by robots, seem ill-considered. But advisers dare not challenge the prince.

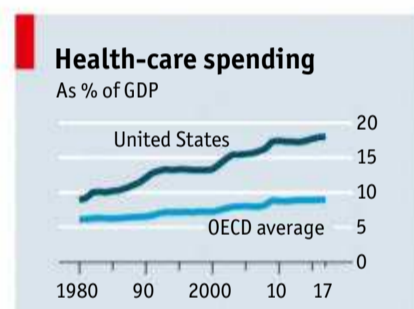
Some friendly *nasiha*

In countries like America, where Mr Khashoggi lived, the instinct has been to offer the prince weapons and support. Instead, the prince's allies should make clear that he does not have a blank cheque—and that his rule would benefit from more openness. Mr Khashoggi, a former government adviser, often said that his criticism of the Saudi regime was *nasiha*, or friendly counsel. He did not consider himself a dissident and disliked the idea of regime change. "It's just ridiculous," he told *The Economist* in July. "I believe in the system—I just want a reformed system." The Saudi regime should listen to its critics, not silence them. ■

The mid-terms

"Medicare for all"

How to turn a meaningless slogan into something worthwhile



SENATORS Bernie Sanders, Elizabeth Warren and Cory Booker are all for it, as are Kamala Harris and Kirsten Gillibrand. "Medicare for all" has also become a rallying cry for many Democratic activists as the mid-terms approach. Like "repeal

and replace", the Republican Party's three-word proposal for improving on Obamacare, "Medicare for all" sounds good but is largely meaningless. Ask any five Democratic senators what they have in mind and you will get five different answers.

The urge to reform American health care deserves support. America is the only rich country to lack universal coverage. Even in a booming economy, 12% of American adults remain uninsured. Though the best care they receive is world-beating, the system as a whole has high costs and disappointing results. America spends 17% of GDP on health care, the highest of any rich country (see chart), but in return achieves an average life expectancy no better than that of the formerly communist countries of eastern Europe. Even Americans with good insurance plans find dealing with their providers maddening.

Hence the urge to tear up the whole system and start again. Mr Sanders has done the most to popularise Medicare for all. He proposes converting the government scheme for the elderly into a single-payer system funded from general taxation, as in many European countries. Private companies would still provide the care, unlike Britain's NHS, but individuals would no longer buy health insurance through their employers.

This plan appeals to Democrats scarred by their experience with Obamacare, an incremental reform that worked with the grain of America's market-based system but which Republicans successfully targeted as unjust. To avoid repeating the same mistake, the thinking goes, Democrats need a big-bang reform that cannot be unpicked later. Its backers point to polls showing overwhelming support for Medicare for all.

In some alternate America imagined by Pixar the health-care system could simply be reinvented. In the real world it would be unworkable—and political suicide. Because American health-care costs are so high, making the government assume them all would require a huge increase in taxation. Voters in Colorado, California and Vermont, all relatively friendly territory for Democrats, rejected single-payer systems when they realised how much they cost. The rebellion that would follow an attempt to remove jobs-based health insurance from the 55% of Americans who have it, putting medical-insurance companies out of business in the process, would make the politics of Obamacare look like a church picnic.

Incredibles 2

A better approach would be to continue changing the health-care system in small steps, frustrating though that might be. In states that expanded Medicaid, the health-care programme for low-income Americans, the proportion of people without health insurance halved. If Democrats can win power in states that rejected the federal government's offer to pay for Medicaid expansion, they will be able to bring down the number of uninsured further. The markets where individuals can buy insurance should be shored up. Finally, individuals could be offered the option to buy Medicare, paying an annual premium to the government just as they would to any other provider of health insurance.

Since Medicare has more pricing power than individual insurers do, this option ought to bring costs down eventually. It would also provide choice for those living in the many rural areas where there is currently no competition in insurance markets. Senators Michael Bennett and Tim Kaine have a proposal along these lines. It is not perfect. If premiums were not set high enough, the government's liabilities would increase. It would leave much of America's frustrating health-care system unreformed. But unlike most other versions of Medicare for all, it might actually happen. ■



Ben 1:01 PM
ACME is happy with our proposal:
uploaded this file: ▾

 **Customer_Contract**
Document from Google Drive

 1

Maria 1:12 PM
Tagging @legal-team for signatures.

 1

1:01 PM Ben's lead in Los Angeles loves the latest proposal.

1:12 PM Procurement signs the dotted line.

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Financial crime

Dirty capital

London's financial flows are polluted by illicit money. Time to clean up



BRTAIN likes to see itself as a leader in the fight against illicit finance and corruption. The government has recently been talking even tougher, as worsening relations with Russia have focused attention on the number of oligarchs who have interests in London. Anyone looking to stash dirty money “should be in no doubt that we will come for them,” warns Ben Wallace, the economic-crime minister.

In fact the record suggests that wrongdoers can sleep easy (see Finance section). The National Crime Agency (NCA) reckons that “many hundreds of billions of pounds” of international money is rinsed through British banks each year, much of it from kleptocrats and their cronies. Almost every big cross-border corruption case in recent years has had a connection to Britain or its palm-fringed overseas territories. British limited-liability partnerships were the vehicle of choice for suspicious clients of Danske Bank, which is embroiled in the laundering of as much as €200bn (\$230bn).

Some people in the governing Conservative Party and the City argue that a big clean-up would be harmful just when British finance risks losing its lustre because of Brexit. The more important point is that, in a country which has undergone bail-outs and austerity following the financial crisis of 2008, doing nothing to tackle dirty capital flows could further undermine the legitimacy of capitalism.

Thames and misdemeanours

London is hardly unique. Other financial centres, including New York, Dubai and Singapore, also wash dodgy cash. The more clean money sloshes around, the easier it is to hide the dirty sort. But London has exceptionally enticing attributes. It handles vast cross-border capital flows. It boasts the English language, good schools and, ironically, a respected legal system (which shields tycoons against the arbitrary plunder they suffer at home). Relaxed rules on ownership are geared towards rich foreigners. Armies of lawyers and public-relations firms specialise in rinsing reputations. Tough libel laws help keep prying journalists and NGOs at bay. On top of all this, Britain has its own network of secretive offshore territories, dubbed its “second empire” by anti-corruption campaigners. London is, in short, ideal for money-laundering.

People give all sorts of reasons not to strangle this golden goose. The ancillary industries that depend on all that wealth would suffer. A clampdown risks scaring away legitimate investment, especially if it is seen as targeting entire nationalities: many Russians own London pads through offshore companies for reasons of privacy or legal tax planning. Some fear it would clobber the property market and the pound, just when a Brexit-bound Britain needs all the investment it can get.

But the case for action is stronger. Predictions of severe economic damage from a crackdown are overdone. Russians and Ukrainians hold only 0.2% of total British assets owned by foreigners. Targeting iffy Russian money would reinforce Britain's

efforts to embarrass Vladimir Putin's intelligence agencies (see Britain section). Providing financial refuge for bent elites fuels corruption in other countries.

The challenge is less to write new laws than to enforce what is on the books—a common malaise in Britain. This month the first “Unexplained Wealth Order”, which requires targets to show the sources of their wealth, survived a legal challenge from the wife of a jailed Azerbaijani banker. The government rightly trumpets reforms launched after David Cameron, a former prime minister, declared that corruption-fighting should be a priority. In 2016 Britain became the first G20 country to launch a public register of companies' beneficial owners, designed to shed light on the shell companies behind which wrongdoers often hide. But the system relies on self-reporting. Companies House, a government agency, has neither the powers nor the resources to check what is submitted. The supervision of firms that set up other companies is so weak, and the fines for breaches so paltry—typically £1,000-2,000 (\$1,310-2,620)—that it makes the British Virgin Islands look robust. Inevitably, therefore, the honest comply and criminals lie.

Worse, law enforcers lack the resources to pursue enough big cases. The NCA's budget, already stretched, is falling. It has perhaps a few dozen investigators with the skills for complex cases; America and Italy have hundreds. This is not an area where justice comes cheap. On average, a big corruption case takes seven years. Prosecuting agencies need to be able to absorb hefty costs, especially if they lose—and, as oligarchs can afford the best lawyers, that is always a risk. Britain has not taken the lead on a large, cross-border case for years.

Devoting greater resources to corruption cases would go a long way towards fixing things. Some of the extra cash should be used to raise investigators' salaries, which are far below those of their American peers. Strengthening oversight of shell companies and the firms that set them up would also help, as would money for the verification of ownership information. Some of the funding for this could come from an increase in incorporation fees, which are as little as £12. One piece of new legislation would help: a “failure to prevent” law that makes it easier to prosecute senior managers or companies if they fail to take adequate measures against money-laundering. A similar provision on bribery works well.

The fair mile

The City matters to Britain. It is a big employer (two-thirds of the jobs are outside London). It generates a trade surplus of 3% of GDP and pays roughly a tenth of the country's taxes. It is a hub for fintech, and Britain's smaller firms appear to secure financing more easily than their typical European counterparts do (see Schumpeter). The opposition Labour Party under Jeremy Corbyn sees things differently. It makes no secret of its deep hostility to finance. If the City does not demonstrate that its markets are clean and honest, it will be giving the next Labour government a freer hand to act—savagely.

Britain's response to the threat posed by illicit financial flows has so far been more thundering rhetoric than meaningful action. It is time to put that right. ■



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Country Director, Ethiopia

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The ideal candidate will possess an undergraduate degree preferably in Economics, Development Studies, International Trade, Planning, Finance or Management with at least 12 years of relevant working experience in programme management **OR** a postgraduate degree with at least 10 years of relevant working experience. In addition, s/he will have five years of leadership and management experience; at least three years of working experience gained in Ethiopia or the other countries in which TMEA operates, primarily in managing economic development co-operation programmes related to regional integration, trade facilitation, trade and investment climate reform, transport sector development, and/or institutional reform.

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The ideal candidate will possess an undergraduate degree preferably in Economics, Development Studies, International Trade, Planning, Finance or Management with at least 10 years of relevant working experience in programme management **OR** a postgraduate degree with at least eight years of relevant working experience. In addition, s/he will have three years of the working experience gained in Southern and East African countries (preferably in Burundi, Kenya, Rwanda, South Sudan, Tanzania or Uganda) primarily in managing economic development co-operation programmes related to regional integration, trade facilitation, trade and investment climate reform, transport sector development, and/or institutional reform.

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The Kavanaugh proceedings

I was candidly more than disappointed to read your coverage of the #MeToo movement (“Truth and consequences”, September 29th). By implication, you seemed to support the accusations levelled against Brett Kavanaugh. That was a cavalier risk in possibly destroying a demonstrably capable and, to date, innocent judge by embracing uncorroborated and largely disproved or irrelevant innuendo. It was shocking.

Did it not occur to you that if these allegations remain unproven, and are possibly merely part of an ends-justify-the-means campaign of the women’s movement, that you have done women who have actually been violated great harm? Where are you really going with #MeToo?

Please hesitate before becoming a pawn in this battle. We need to allow and encourage our best and brightest to seek public office without demeaning coverage of accusations that may have been engineered.

MARC ROSENBLUM
Franklin Lakes, New Jersey

Lexington laid into the Republicans over the Kavanaugh hearings (October 6th). What about the shenanigans of the Democrats on the Judiciary Committee? Not a word about Senator Dianne Feinstein sitting on Christine Blasey Ford’s accusations against Mr Kavanaugh for two months, even as she was signing up the top lawyer for #MeToo to assist in her attack on the judge when the time came. No mention of the inability of his inquisitors to decide what they most wanted him guilty of. A hazily recalled sexual assault? Heavy drinking? Getting angry about the abusive treatment of his family?

The unfairly accused have redress under the law and are owed their day in court. But a hearing isn’t a courtroom, is it? And so this character assassination masquerading as a confirmation process was a free-for-all of allegations, none of which had to be supported

by anything other than opinion. Add to that an ample supply of needy attention-seekers, journalists delighted to dig them up and a few editors who weren’t too fussy about verification, and the cast was complete.

This isn’t the first time powerful people have tried to discredit someone they don’t like, and it won’t be the last.
MARGARET MCGIRR
Greenwich, Connecticut

Senator Susan Collins is one of the few remaining moderates in Congress and no supporter of the president. Her floor speech reviewing the pros and cons of why she decided to confirm Mr Kavanaugh was one of the best in recent times. She looked at the charges against the judge and showed how each was unsupported by the facts. Senator Collins is a dedicated advocate for women’s issues and has written more than 25 bills concerning them. To think she would support anyone she had the slightest doubt about regarding sexual assault, as some accuse her of, is absurd.

CHRIS DALY
Yucaipa, California



I appreciate *The Economist* taking on this issue, but the idea that “#MeToo needs a path towards atonement or absolution” is a bit tone deaf (“#MeToo, one year on”, September 29th). Absolution and atonement require contrition and remorse for the harm caused, and that has been lacking in most of these cases.

Imagine if Mr Kavanaugh had come forward as soon as the allegations emerged, admitted to being a drunken teenage jerk and apologised unreservedly to the women he assaulted. The conversation

would have been quite different. In fact, most of the men caught by #MeToo have not admitted any wrongdoing and continue to claim innocence, even that they are the victims. That is where the atonement needs to begin.

VICTORIA STANLEY
Washington, DC

How could an article on the decline of civility in politics (“Uncivil hands”, September 29th) not have mentioned that Maxine Waters, a Democratic congresswoman from Los Angeles, has loudly and publicly told her followers to harass Republicans in restaurants, stores or wherever else they find them?

RICHARD CHRISTOPHERSON
La Mesa, California

Chile’s economy

It is true that Chile’s real GDP growth has increased significantly (“Steering the economy away from the middle-income trap”, September 29th). However, this economic recovery has been broad-based and been led by non-mining industries. Mining only accounts for roughly 10% of Chile’s economic output. The recovery has had a tangible effect on the labour market, with job growth in the private sector more than doubling this year. The reason unemployment rates have not declined is that many more people are looking for jobs.

A tax-modernisation bill is in the works that simplifies the tax system, favours smaller businesses and spurs investment and growth. It has received strong support from the IMF. Moreover, although productivity growth has been persistently negative since 2014, there has been a striking improvement in the first half of 2018, to the fastest pace in seven years. Growth forecasts have also been revised upwards. Our campaign promised to focus on the poor and the middle class while safeguarding public finances, which we are doing. As such, we are implementing a fiscal-consolidation package to reduce the fiscal deficit and cap

the public-debt ratio, and have moved towards further improving fiscal institutions, such as granting legal status and autonomy to the advisory fiscal council.

We are committed to leading the Chilean economy beyond the middle-income trap but are fully aware of the tremendous challenges ahead.
FELIPE LARRAÍN
Minister of finance
Santiago, Chile

Turn that light off

The Centennial Light described in your special report on waste (September 29th) is not a good example of the virtue of a long-lived product that reduces consumption. The technology comes at a cost: the lower-temperature filament is less efficient at generating light, requiring more electric power consumption for the same amount of light. As a rough estimate, the 100-year lamp would require 60 watts of power to produce the same light output as could be obtained for 40w from a 2,000-hour lamp. At near-continuous use (8,000 hours a year) it consumes an extra 16,000 kwh over 100 years. Moreover, the yellow film on the bulb means that half the light produced by the filament never gets out.

JOHN WAYMOUTH
Marblehead, Massachusetts

An evolutionary phrase

As a quadcopter enthusiast, I was delighted to see you disregard the ancient crow idiom for describing straight-line distances. Rather, Tel Aviv to Jerusalem is now 55km “as the drone flies” (“Slow train to Jerusalem”, September 8th).

TIM DEYZEL
Chief pilot
Stately Drones
Blackheath, Australia ■

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The retreat from meat

WARSAW

People in rich countries are eating more vegan food. The further they go, the better

IT IS lunchtime and a queue is forming for the burgers at Krowarzywa, voted the city's best in an online poll: students, families, businessmen in suits. This is Warsaw, where (you might think) lunch is usually a slab of meat with a side order of sausage. But at Krowarzywa—which means “cow alive” and contains the word *warzywa*, meaning vegetables—no animals were harmed in the making of the food. The burgers are made of millet, tofu or chickpeas. The bestselling “vegan pastrami” is made of seitan, a wheat-based meat substitute.

Warsaw has almost 50 vegan restaurants. That does not mean it has all that many vegans. Kassia, a 20-something professional in the queue, says she has no ethical objection to eating meat. She comes to Krowarzywa because she likes the food. Kornel Kisala, the head chef, thinks that most of Krowarzywa's clientele eat meat, but it does not worry him. “Animals don't care whether you eat a vegan burger because it is fashionable or because it is tasty.” Altogether, 60% of Poles say they plan to cut back on meat this year. Eating vegetarian and vegan meals now and then is one of the ways some choose to do so.

Interest in vegan food has been booming across the rich world. Celebrity claims of veganism are everywhere: Bill Clinton

and Al Gore, Serena and Venus Williams, Lewis Hamilton, Mike Tyson, Beyoncé, take your pick. In America sales of “plant-based” foods—a term for foods that contain no meat, eggs or dairy that reliably says “vegan” to vegans but doesn't say “weird” to the less committed—rose 20% in the year to June 2018, according to Nielsen, a market-research group. That was ten times the growth in food as a whole that year and two and a half times faster than vegan foods grew in the year before.

McDonald's is offering McVegan burgers in Scandinavia. The American restaurants in the TGI Fridays chain sell soyabean burgers that ooze blood made of beetroot juice. Tyson Foods, one of the world's largest meat producers, recently bought 5% of Beyond Meat, the company which makes them. Waitrose, a posh British grocery chain, introduced a range of vegan food in 2017, expanded the selection by 60% in mid-2018 and says sales of vegan and vegetarian foods in July 2018 were 70% above the level in July 2017.

Some people see great things in this. Two years ago Eric Schmidt, a Silicon Valley figure who used to be chairman of Google, called plant-based meat substitutes the world's most important future technology; he foresaw them improving

people's health, reducing environmental degradation and making food more affordable for the poor in developing countries. The founder of the first vegan society said in 1944 that “in time [people] will view with abhorrence the idea that men once fed on the products of animals' bodies.” Many since have shared his hope. Perhaps their time is come at last.

If so, it is a slow coming. Meat consumption worldwide has been growing consistently by almost 3% a year since 1960, mostly because people in poor countries buy more meat as they get richer, and the trend has yet to slow. In the early 1970s the average Chinese person ate 14kg (31lb) of meat a year. Now they eat 55kg, which is 150g, or five ounces, a day. But though most growth in consumption has been in the developing world, rich countries are eating more meat, too; their consumption is just not growing as fast as it used to. According to the UN's Food and Agriculture Organisation (FAO), meat consumption in the richest nations has risen 0.7% a year since 1991.

Polling data is used to claim that the number of vegans in rich countries is both quite high—around 10% in some European countries—and growing. But there is reason to doubt at least the first of these. Some of the best data come from Britain, home of the world's first vegan society. A poll carried out by that society in 2016 found that 1.05% of people in Britain never ate meat or animal products. This is considerably higher than the result the society got in 2007, which suggests real growth in numbers. But it is a far cry from the 5.3% of the population reported as vegan in a more recent poll. In general, polls seem to find many ►

▶ more people claiming to be vegan than they do people abstaining from all meat, fish and animal products.

In America, Nielsen found in 2017 that 3% of the population called themselves vegans and 6% vegetarians (people who eschew meat, but eat eggs and/or dairy products). This proportion seems more or less stable; the country's largest polling organisations, Gallup and Harris, both found 3% of the population calling themselves vegan over the period 2012-18. But more detailed research by Faunalytics, a company which has been running large surveys of eating habits for 20 years, puts the numbers at just 0.5% for vegans and 3.4% for vegetarians. Fully a quarter of 25- to 34-year-olds in America claim to be either vegan or vegetarian, whereas studies by Faunalytics find the median age of American vegans to be 42, four years older than the national median. It seems that a fair amount of aspirational self-deception, terminological inexactitude or simple hypocrisy is at play.

The idea that veganism is most widely espoused, if not necessarily adhered to, by the young seems to be true in many countries. In Germany, according to Mintel, a research firm, 15% of 16- to 24-year-olds say that they are vegetarian, compared with 7% of the population at large. In many countries declared vegans lean towards the political left. In America polling by Pew has found that 15% of liberals espouse a meat-free diet, as opposed to 4% of Republicans. American vegans and vegetarians are also poorer than average, and twice as likely to be single. Three-quarters of them are women. This all fits veganism's association with valuing health, simplicity and low environmental impact—an implicit rejection of the values and coronary arteries of older red-meat-eating men.

Veganism is not a way of life that it is easy to keep up. According to Faunalytics, for every active American vegetarian or vegan there are more than five people who say they have abandoned such a diet. The growth in the number of restaurants catering to veganism and the availability of plant-based products on shelves may reduce this churn and allow more to stick with the programme. As it is, a moving tar-

get makes it unsurprising that accurate figures on veganism are hard to come by.

Overall, though, it seems safe to say that the number of people sometimes or regularly choosing to eat vegan food is growing much faster than the growth in people deeply committed to a meat-, egg- and dairy-free life. Patrice Bula, a vice-president at Nestlé, says he thinks that only a quarter of the people buying his company's vegan meals are committed vegetarians or vegans. People in this larger group are often called “flexitarians”, who shift back and forth between omnivorous and vegetable diets. Almost two Americans in five say they fit this category, says Nielsen. The true vegan efflorescence lies in casual, part-time veganism.

Flexible friends of the Earth

In rich countries, people become flexitarians as a response to three concerns: their own health; the health of the environment; and the welfare of animals. On all three, they have a point; on at least the first two, though, a lot of the benefits can be captured without strict veganism.

The direct evidence that vegan and vegetarian diets are in themselves good for people is mixed. Between 2002 and 2007, 73,000 Seventh Day Adventists, a religious group in America, participated in a study of eating habits. The 27,000 vegans and vegetarians among them had significantly lower mortality rates. A smaller survey of British vegetarians from 2016, though, found no such link.

Aspects of veganism do go with the grain of some health advice. Large studies have shown that people who eat a lot of red meat have higher overall mortality rates (the same does not apply to eating poultry). Eating a lot of processed meat is linked to colorectal cancer. The evidence on this seems clear enough for various authorities to recommend limits to the total ingestion of red meat—the World Cancer Research Fund suggests less than 500g a week—and minimising the intake of processed meats such as bacon and salami.

And the damage to health done by meat is not all captured in the sort of studies that reliably cast doubt on diets heavy

in red meat. Lots of factors, both dietary and non-dietary, influence health problems such as obesity, high blood pressure or diabetes, and it is hard to understand exactly what is responsible for what. Comparing diets on a statistical basis, though, allows some striking inferences. In 2016 a study by Marco Springmann and colleagues at the University of Oxford found that, globally, a transition to well-balanced vegan diets might result in 8.1m fewer deaths a year. Universal vegetarianism would avoid 7.3m deaths.

If the associations on which this computer modelling is based are robust, those are impressive figures. But much of the benefit they claim to demonstrate could still be realised if omnivores ate better-balanced diets with less meat. If the world adopted what the study called a healthy global diet, with less sugar than most in the West consume, plenty of fruit and veg and just 43g of red meat a day, the number of deaths avoided would still be 5.1m.

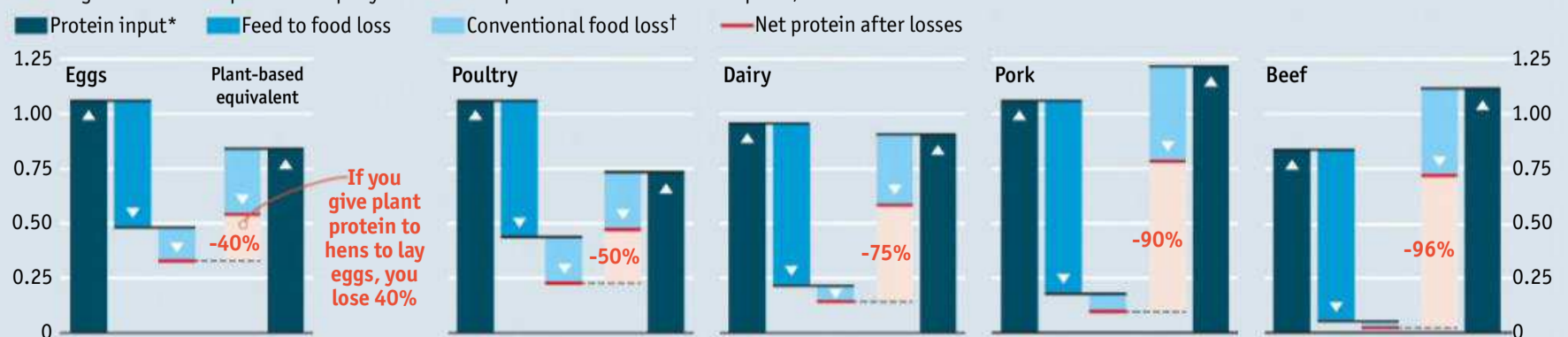
Red meat is typically a quarter to a third protein by weight, so just 43g is nowhere near enough to supply the 50-60g of protein a day that people require (the exact amount depends on a person's weight, amount of exercise and several other factors). The global healthy diet thus has people relying on quite a lot of plant protein, too. Rich-world diets, though, tend to get all their daily protein requirement from animals, and then some. Americans eat 90g of protein a day, Europeans 85g, and most of it comes from animal products.

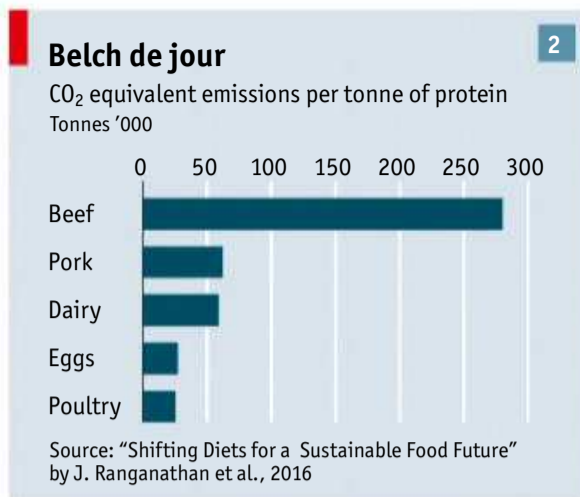
Because meat is energy rich, eating more than your protein needs dictate means taking on a lot of calories, which may well be stored as fat. Vegans both eat less protein and get it from less energy-rich and potentially fattening products. In 2017 a French study found that both vegans (62g of protein a day) and vegetarians (67g) were healthier than the meat eaters wolfing down 81g. They were also eating more varied diets, and, perhaps crucially, fewer calories overall; it may have been those choices, rather than veganism per se, that made the difference.

On the environment, too, vegans and vegetarians have a point. Growing their ▶▶

From field to fork

Protein gains and losses per hectare per year from food production to final consumption, tonnes





► food requires less land than raising meat does. Animals do not turn all the energy in the crops they eat into calories in their muscles. They need some of that energy to stay alive—and while that overhead is good for the animals, from a food-production standpoint it looks like a waste. This waste means you need more land per calorie of food if you are producing beef than if you are producing broccoli. Admittedly, a lot of grazing is on land that would not necessarily be suitable for arable farming. But the FAO's finding that raising livestock takes about 80% of all agricultural land and produces just 18% of the world's calories is still telling.

Alon Shepon of the Weizmann Institute and colleagues have looked at this in terms of opportunity costs. Choosing to make a gram of protein by feeding an egg-laying hen, rather than getting the equivalent of a gram of egg protein from plants, has an opportunity cost of 40%. Getting the gram of protein from beef represents an opportunity cost of 96% (see chart 1 on previous page). They argue that if America stopped paying these opportunity costs and got the protein from plants in the first place, it would be equivalent to increasing the food supply by a third—or eliminating all of the losses due to food waste.

Being so land hungry means cattle farming changes the climate; clearing land for pasture creates greenhouse gases. On top of that, the bugs in ruminant digestive systems produce methane, a fairly powerful greenhouse gas. Once it gets out of the cows—by belching, mainly, not, as is commonly thought, farting—this warms the world. The FAO calculates that cattle generate up to two-thirds of the greenhouse gases from livestock, and are the world's fifth largest source of methane. If cows were a country, the United Herds of Earth would be the planet's third largest greenhouse-gas emitter.

Mr Springmann and his colleagues calculated that in 2050 greenhouse emissions from agriculture in a vegan world would be 70% lower than in a world where people ate as they do today; in the "healthy global diet" world they would be 29% lower. The savings are not all owing to cows; but a large part of them are (see chart 2). Raising

cattle produces seven times more in terms of emissions per tonne of protein than raising pork or poultry does, 12 times more than soya and 30 times more than wheat. Giving up beef captures many of the benefits of going vegan. Other animals make a lot less difference. Getting your protein from insects—very efficient converters—might be almost indistinguishable from veganism in environmental terms.

Except, that is, to the insects. One of the main things that motivates many vegans and vegetarians is a belief that killing and eating animals is wrong. The vegans also abstain from milk and eggs because there, too, they see a lot of exploitation, death and suffering (the question of honey remains a point of contention). In dairy herds calves are typically taken from their mothers within 24 hours, compared with the nine months to a year they would suckle if left to themselves. Male calves are killed or reared for meat. In industrial egg-production day-old male chicks are killed and simply discarded. Even if one keeps strictly to meat, though, the death toll involved is immense. Over 50bn farm animals are killed for meat every year.

#MooToo

The best known proponent of the case that this matters is Peter Singer, a philosopher at Princeton University. Mr Singer argues that treating the interests of humans as superior to those of other animals is a prejudice, analogous to treating men as superior to women or whites as superior to blacks. It depends on an arbitrary distinction between two groups, one of which has the power to make the distinction stick.

What matters, he says, is not what species an individual belongs to but its capacity for suffering. If an animal suffers as much as a person, then things that it would be impermissible to do to a person—killing and eating him, immobilising him in a cage—are unacceptable if done to the animal, too. "In suffering," Mr Singer writes, "the animals are our equals."

This moral point would seem to depend in part on an empirical point; to what extent and in what manner do animals suffer? Animals' brains contain regions clearly analogous to those correlated with consciousness, perception and emotion in humans. What that reveals about their suffering as compared with a human's is a subtle question. But they definitely feel pain, and some can both express preferences and, it would appear, hold beliefs about the preferences of others. That would seem to have some moral salience.

But would it be better for animals that suffer not to exist at all? A vegan world would have no need of cows, happy or sad. The genus *Bos* currently numbers some 1.5bn. Should those lives be valued less than the lives of the wildlife which might repopulate their overgrown pas-

tures when they are gone? When it comes to wild animals, people tend to abhor population collapse; are things that different when it comes to domestic animals?

Mr Singer's project of seeking legal rights for animals is certainly going to be a tough row to hoe, if not an impossible one. Neither courts nor legislatures seem very interested. Reducing the cruelty that animals suffer, though, is more plausible, both through legislation—battery cages for hens have been banned in the EU since 2013—and through consumer pressure, such as a preference for free-range products, cruelty-free certification, transparent sourcing and the like. This second route, though, is not available to vegans.

Though biology is not destiny, humans, like their relatives the chimpanzees, evolved as omnivores; the evidence is in the teeth and the guts. If people's diet is otherwise restricted, for example to staple starches, meat does them good. As the increasing consumption of meat worldwide shows, a lot of people in most cultures really do like eating it; the vast majority will do so, at least a bit, when they get the chance. The great exception is India, where, mostly for religious reasons, about 30% of the population has a vegetarian lifestyle.

None of that makes veganism, full- or part-time, and the spread of plant-based foods irrelevant. A mixture of ethical concerns, innovative cuisine like Mr Kisala's and more convenient vegan shopping at supermarkets could yet see the rich world reach "peak meat" and head down the other side. If so, and in particular if reduced consumption of red meat is part of the process, there will probably be substantial gains in health and happiness. And if the world improves standards in the meat-rearing operations that remain, some of that may even be shared with animals. ■





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Democratic policies

Universal pictures

WASHINGTON, DC

Medicare for all is a nice slogan. Could it become something workable?

PICTURE if you can Bernie Sanders, the democratic-socialist senator, as a young lad of four. That is how old Mr Sanders was in 1945 when Harry Truman announced his vision for single-payer health care, in which the government pays all costs. Lyndon Johnson, backed by crushing congressional majorities, resurrected the idea in 1965 when he signed laws creating Medicare, government-run insurance for the elderly, and Medicaid, a programme for the very poor and disabled. Now at the age of 77, Mr Sanders would like at last to enact a single-payer system under the banner of “Medicare for all”.

The idea is now rather popular. When polled, nearly 75% of Americans declare a favourable view—as do 87% of self-identified Democrats. Ahead of the mid-terms, fealty to the idea has become a litmus test for progressive voters. The popularising of Medicare for all is largely owing to Mr Sanders’s evangelising during the 2016 presidential primaries, when the idea was lampooned by Hillary Clinton as unworkable. Since then, five likely Democratic presidential contenders—Cory Booker, Kirstin Gillibrand, Kamala Harris, Mr Sanders and Elizabeth Warren—have endorsed Medicare for all. Should one of them win, the expectation that he or she would act on the slogan will be enormous.

First, though, Democrats need to decide what Medicare for all actually means. The details of health policy resemble brain surgery; the appeal of a slogan is that nobody need bother with the stultifying details. Some Democratic politicians and left-of-centre think-tanks have put forward more modest proposals under the aegis of Medicare for all. They include: allowing more people to qualify for Medicaid (government-provided insurance for the poorest), lowering the age requirements for Medicare and introducing a so-called public option, a state-run insurer to compete with existing private ones. These are more accu-

rately labelled as “Medicare for more”, says Sara Collins of the Commonwealth Fund, a health think-tank. The virtue of these ideas is that they are incrementalist and would require less federal spending than a fully fledged single-payer system. Their chief shortcoming, as Robert Blendon, a professor of health policy at Harvard puts it, is that “terms like public option don’t raise the blood pressure of the public”.

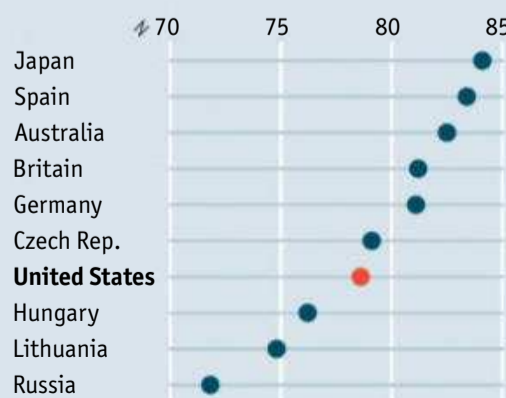
As a result none of these proposals has received as much attention as the detailed plan put forward by Mr Sanders, which goes the full monty. Medicare would become the single payer of all insurance claims. It would be free at the point of use. Premiums, deductibles and other payments would be nearly eliminated. It would also up-end the health-care system by doing away with employer-sponsored insurance. The majority (56%) of working-age Americans are enrolled in these schemes; 71% of those covered by them say they are content. Unlike the other Medicare-for-all pitches, if you like your plan, you most certainly cannot keep it.

To fund all this, federal spending would need to increase by an estimated \$32.6trn over ten years. If the government used its power to reduce the costs of drugs and of administration this could, according to an estimate by the Mercatus Centre, a think-tank, result in \$2trn less health spending overall otherwise.

It would still be hard to get through. “While the taxes are upfront and real, belief in savings down the line requires some faith,” says Larry Levitt of the Kaiser Family Foundation, a health-policy think-tank. Republicans derided the much more modest Obamacare as spendthrift socialisation of American health care. Even Democratic- ▶

Live free and die younger

Average life expectancy at birth, 2016, years



Source: OECD

► led states that pondered enacting single-payer on their own balked when the cost became apparent. Efforts in Vermont, Mr Sanders's own home state, stalled once it became clear that an 11.5% surtax on payrolls and premiums up to 9.5% of income would be needed to fund single-payer insurance. Public support drops sharply once voters are reminded that taxes would have to rise to pay for Medicare for all.

The problems identified by Mr Sanders are nonetheless real. America is alone among large, developed countries in lacking universal coverage. Even after Obamacare, 12% of adults are uninsured. For this Americans pay 17% of GDP, the most in the OECD club of mostly rich countries. Government-run health programmes can reduce costs by eliminating administrative costs, private profits and using their dominant positions to keep prices low. But none of the European systems from which Mr Sanders draws his inspiration are purely single-payer. Many use a mix of public programmes and supplementary private insurance to ensure universal coverage. Cost-sharing, along with subsidies to those who cannot afford it, are the norm.

Nor is Medicare itself so simple. As currently constituted, Medicare coverage is separated for hospitals (Part A), other medical costs (Part B) and prescription drugs (Part D). Part C allows for privately run Medicare Advantage plans that offer supplemental service and replace Parts A and B. Got all that?

For most Americans enrolled in the programme, none of these services is actually free at the point of use, as Mr Sanders's bill proposes. The agency that administers Medicare issues regulations that hospitals say impose billions in additional compliance costs. Coding procedures for billing purposes is now a cottage industry employing 206,000 people—and is projected to grow at 13% over ten years. “Arguably it has too much coverage in some dimensions. It pays for every treatment under the sun as opposed to Medicaid or the Canadian system. But it's completely lacking in catastrophic coverage,” says Amy Finkelstein, a health economist at MIT who recently won a MacArthur genius grant. Medicare does provide health-care at decent cost, but it is nothing like as efficient as its devotees claim.

A more pragmatic agenda would focus on boosting competition in health-insurance exchanges and reversing the cuts, regulatory changes and work requirements imposed by the Trump administration. Even this would take a lot of legislation. If Democrats finished all that, they could then allow customers to buy Medicare coverage from the government (the non-coercive, “public option”). The difficulty with this agenda is that it does not fit onto a bumper sticker. The advantage is that it might one day get through Congress. ■

Nikki Haley resigns

UN done

WASHINGTON, DC

The White House loses a reassuring member of its foreign-policy team

WAVERING voters in competitive congressional districts are not going to cast their ballots based on when America's ambassador to the UN resigned. That Nikki Haley chose to do so on October 9th is nonetheless odd. Just a few weeks before the mid-terms, when Republicans are still crowing about having installed Brett Kavanaugh on the Supreme Court, her resignation reinforces the impression that the Trump administration cannot hire and keep “the best people”. Still, anyone to whom that matters is probably voting for a Democrat anyway. President Donald Trump's most dedicated supporters have little use for the UN and would be happy to see Ms Haley's position unfilled. Her departure will not move the needle now. It nevertheless set off a lot of speculation about what she is up to.

Ms Haley's resignation seems to have caught White House staff by surprise. Despite a recent report raising questions about her use of private jets, Ms Haley faced no pressure to resign. Unlike many of the president's initial cabinet appointees, she began as a critic rather than a supporter of Mr Trump. But, like so many other Republicans, she turned from critic to good soldier, promoting Mr Trump's policies and adopting his combative style—warning before member states voted on a resolution condemning Mr Trump's decision to move the American embassy to Jerusalem that “the US would be taking names”.

Ms Haley was never a wholehearted Trumpist. She said that the women who accused her boss of sexual misconduct

“should be heard.” She tangled with other members of his cabinet, and did not get along with Rex Tillerson, Mr Trump's first secretary of state. Like Bobby Jindal, another child of Indian immigrants who became the Republican governor of a southern state, Ms Haley once seemed to offer a more cosmopolitan, inclusive and open future for the Republican Party, a prospect that faded when Mr Trump reoriented it around nativist grievances.

She has managed an unusual balancing act during nearly two years in the job, remaining in the good graces of both Mr Trump and his Republican-establishment antagonists. Part of that was owing to her portfolio. Neither Mr Trump nor his supporters have ever seemed terribly interested in the details of foreign policy, expressing only a desire for respect. The positions Ms Haley advocated at the UN—tough on Iran, defensive of Israel, pragmatically nurturing alliances—were mainstream Republican ones before Mr Trump came along.

There has been speculation that Ms Haley resigned to preserve her future political prospects. Things could get rockier for the Trump administration should the Democrats win the House in November. Getting out now lets her claim good service in the Trump administration, which should count for something in the future with his supporters, while also keeping herself unsullied by whatever Democrats may use their subpoena power to unearth.

Bill Kristol, a prominent Republican Never Trumper, has floated Ms Haley as a possible primary challenger to the president in 2020. During the Oval Office appearance with Mr Trump at which she announced her resignation, Ms Haley told reporters that she would campaign for the president in his next race. Should he run for re-election in 2020, it would be classically Trumpian to dump Mike Pence from the ticket after four years of devoted service and pick someone else. Ms Haley could help Republicans rebuild her party's brand with educated women.

Or, if Lindsey Graham, the senior senator from her home state of South Carolina, were to enter Mr Trump's administration after the mid-terms, his seat, which is up in 2020, would be hers for the taking. Ms Haley would face a challenge from the right, but she was elected governor there twice and remains popular. That would leave her well placed to run for president in 2024, when she would be just 52 years old. ■



All oval now



The mid-terms (1)

Missing, presumed indifferent

WASHINGTON, DC

America would be very different if Latinos voted like African-Americans

ONE measure of racial progress is that African-Americans are as likely to vote in elections as whites. Black voters were actually slightly more likely to turn out than whites in the 2008 and 2012 presidential contests. Hispanics lag far behind. Turnout rates for Latinos were 20 points lower than for whites in 2016, a gap that is far wider than it was two decades ago. What is keeping Hispanics from voting?

The answer will matter a lot in November. Priyanka Mantha from the campaign for the Democratic candidate to be governor of Georgia, Stacey Abrams, says the campaign is investing heavily in bilingual advertising and uses Spanish-speaking canvassers to spread its messages. The targeting team is hoping to build on the success of this year's primary campaign, in which 250,000 more Democrats voted than in 2014. Public polls suggest these efforts might be paying off. Ms Abrams is currently level in her race against the Republican Brian Kemp.

Every national Democratic campaign for the past few decades has raised hopes about higher turnout from Hispanics, often only to be disappointed. In two of this year's key Senate races it seems to be happening again. The president's "build the wall" rhetoric, the separation of children from their parents at the border, his enthusiasm for deportations: none of these things is sending enough Hispanic voters into the arms of either Beto O'Rourke in Texas or Bill Nelson in Florida. Mr O'Rourke is trailing Senator Ted Cruz by roughly five points, half the margin by which Trump won in 2016. Senator Nelson, the Democratic incumbent, is in a tight race

Weed v wine in California

Pinot or pot?

LOS ANGELES

Dopers and toppers go head to head in wine country

BOOZE and drugs usually belong together like Fred and Ginger. But not, it seems, in California's wine region. Wine-makers are fretting that recreational marijuana use, which became legal in the state in January, could challenge their dominance of what is delightfully known as people's "intoxication budgets". They also complain that they can no longer afford seasonal labour to harvest their grapes because workers have better-paid, year-round jobs on cannabis farms. Sonoma County, one of the state's main wine-producing regions, recently imposed restrictions on who may grow weed, and where.

According to Rabobank, a Dutch firm that specialises in financing agriculture, marijuana and alcohol are to some extent substitutes. Legalisation, a recent report from the bank argues, will encourage more women, baby boomers and high earners—all stalwarts of the wine business—to smoke weed instead. In other states, the legalisation of medical marijuana has been associated with a roughly 15% fall in alcohol consumption. Cannabis is taking off because it appeals especially to the health-conscious inebriate. In one poll, 72% of American con-

sumers said they thought marijuana was safer than alcohol.

Weed sellers are already paying the wine business the compliment of their most sincere flattery. Marijuana dispensaries in California have created "tasting wheels" and 100-point ratings systems, both based on techniques for describing and marketing wine. *Wine Spectator*, a magazine, is suing *Weed Spectator*, published in northern California, for trademark infringement.

But not all wine makers are bummed out. Some Californian sommeliers are giving classes on pairing wine and weed. A handful of wine makers in Napa Valley, another centre of wine production, have set up the Napa Valley Cannabis Association, with the idea of planting the stuff in the region next year. And—on the principle that if you can't beat 'em, join 'em—Rebel Coast winery in Los Angeles County has produced a marijuana-infused sauvignon blanc. Andrew Jefford, a British wine writer, thinks drinking, not smoking, is the future of weed. "Cannabis drinks," he writes, "may become the leading medium for recreational consumption." Perhaps booze and drugs do belong together after all.



Don't Bogart that bottle

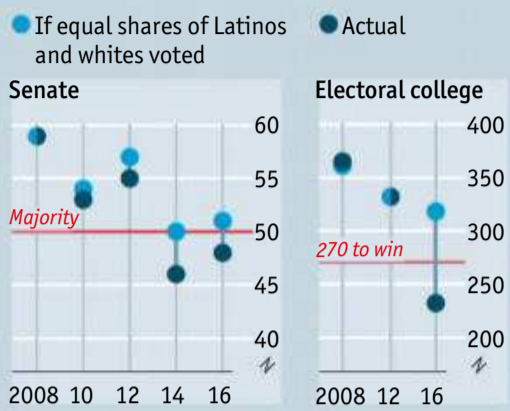
with Rick Scott, his Republican challenger.

Though many political scientists suggest that factors like educational attainment and income explain why some Americans vote less often than others, voter-turnout records show a more complicated picture. Latinos without high-school diplomas actually vote more often than whites without them, according to a new book by Bernard Fraga, a political scientist, called "The Turnout Gap".

One answer is that Hispanics, a category created by the Census Bureau, do not feel very Hispanic. Florida's politics often sets Cubans against Puerto Ricans. In Texas, the term covers Mexicans who arrived in the 1970s, recent migrants from Central America and families who have been in Texas for centuries. Black Americans have a long history of mass political organising dating back to before the civil-rights era. Latinos do not. The expectation that they ▶▶

Tilted stage

United States, Democratic Party electoral outcomes
Number of seats won



Source: "The Turnout Gap" by Bernard L. Fraga, Cambridge University Press

▶ should have a shared political consciousness might be mistaken.

Another explanation is that the campaigns are doing a lousy job of targeting them. This is what Mr Fraga argues. Campaigns usually focus their marginal extra efforts on voters who are most likely to show up, which ends up reinforcing pre-existing turnout patterns.

If Democratic candidates were able to flip a switch and better target Latinos, the result would be large political upsets in November. *The Economist's* weekly survey with YouGov, a polling firm, finds that 55% of Latinos favour Democrats in the forthcoming elections, versus 24% who favour Republicans. Once uncertain voters are allocated, this is similar to the 70% of Latinos that Hillary Clinton won in 2016, according to survey data from the Co-operative Congressional Election Study.

Democrats are frustrated by these numbers; this seam of votes appears easy to mine but in reality it is plainly not. To realise the promise of this apparently friendly collection of voters, "Democrats don't have to persuade anyone," Mr Fraga says, "the voters just have to turn out!" He estimates that if Hispanics voted at the same rate as whites in 2016 then Democrats would have won 51 Senate seats (they won 48, if you include the two independent senators that caucus with them) and Hillary Clinton would have been elected president with 318 votes in the electoral college (she actually won 232). ■

governor since 1994. The Democrats it elects to statewide office, such as Bill Nelson, the incumbent senior senator, tend to be dull, Anglo moderates. Many Democrats worry that Mr Gillum, a young, black progressive, is too left-wing. His opponent gleefully accuses him of being a socialist.

Even so, Mr Gillum has a small but steady lead in the polls. But casting a shadow over his campaign has been an extended FBI investigation into corruption in Tallahassee's City Hall (Mr Gillum says he has done nothing wrong and has been told by the FBI that he is not a target). Since the primaries his campaign has been steady; Mr DeSantis's has been disorganised and beset by racial controversies.

Mr Gillum is making the same electoral bet as Stacey Abrams, the Democratic gubernatorial candidate in Georgia. In recent decades, as Republicans have moved rightwards, Democrats have nominated white centrists designed to win voters in the theoretical middle, hoping that progressives or non-white voters would trudge to the polls anyway for lack of other alternatives. That strategy has often failed them. Instead, Mr Gillum is trying to excite non-white voters, hoping they will turn out in numbers similar to presidential rather than off-year elections, when the electorate is typically older and whiter.

Mr Trump has been polling better than in other swing states, partly because Florida has so many old people (over 20% are 65 or over, compared with around 15% nationally), and they turn out to vote more reliably than young people do. Christian Whitfield, an African-American Republican running for the city council in Jacksonville, says Mr Trump is popular because "people see his policies working regardless of the noise you hear. They can pay their bills, go shopping and go to dinner every so often." Thomas Esposito, another Jacksonville Republican, says Mr Trump's transformation of the party has been popular in Florida. "It's the party of the common man, the forgotten man, [and] there are a lot of forgotten people in Florida." ■

The mid-terms (2)**The five-state conundrum**

JACKSONVILLE AND ORLANDO

The Sunshine State's gubernatorial race offers the starkest choice of 2018

"WHAT you have to remember", says Ronald Brisé, in a conference room several storeys above downtown Orlando, "is that Florida is like three to five states in one." Spend more than a couple of hours talking Florida politics and some version of Mr Brisé's dictum will emerge. South Florida (Mr Brisé's home, before he served in the state's legislature) is multicultural, crowded and Democratic. North Florida is whiter and staunchly conservative. This gives statewide races a familiar pattern: Democrats seek to run up their totals down south while minimising their losses in the north, while Republicans do the opposite. The parties fight over central Florida, a region that changing demography—an influx of Latinos from Puerto Rico and the north-east, a steady flow of white pensioners seeking sunshine and pickleball in retirement—prevents from listing too far in either direction.

Perhaps no race in the country offers a starker choice than the contest between Ron DeSantis, a three-term Republican congressman, and Andrew Gillum, the Democratic mayor of Tallahassee, to become Florida's next governor. Mr DeSantis is among President Donald Trump's most ardent congressional supporters. One

campaign ad features him building a wall with his daughter, then reading to her from one of Mr Trump's books. Mr Gillum, meanwhile, was backed by Bernie Sanders. He favours universal health care, gun control, raising business taxes to fund public schools, and criminal-justice reform. Neither candidate was expected to win his primary; both defeated more mainstream, establishment-backed candidates.

Florida has not elected a Democratic



Ron DeSantis and campaign bus

The mid-terms (3)

Model voters

Our forecast suggests Democrats will win a narrow House majority of about 12 seats. Polls suggest Republicans will keep the Senate

THERE are no iron rules of politics, but some patterns repeat often enough to resemble physical laws. In America, perhaps the most reliable one is that voters express buyer's remorse in mid-term elections. In 23 of the 26 mid-terms held since 1911, when the House of Representatives was fixed at 435 members, the president's party has lost ground in the lower chamber. The average swing towards the opposition has been 30 seats; Democrats need to gain just 23 to win control.

With less than a month of campaigning left, the most likely result is that Democrats will take the House while falling short in the Senate. Nonetheless, both contests are close enough that the outcome is highly uncertain. Statistical models—including *The Economist's* own forecast of the House race—and betting markets agree that there is around a 30% probability of the Republicans holding both chambers, and perhaps a one-in-five chance that the Democrats will flip both. Either outcome falls within the range of credible estimates of Mr Trump's odds in November 2016.

The only prediction about the mid-terms that can be made with confidence is that many more people will vote for Democratic House candidates than for Republican ones. When pollsters ask which party respondents plan to support this year, Democrats lead by eight points. That is the second-biggest advantage an opposition party has had at this point in a mid-term campaign since 1994 (see chart). District-by-district polls tell a similar story: Democrats' performances in surveys of single House districts are on average seven percentage points higher than the party's vote shares in 2016.

Unexpected changes in the mix of people who turn out to vote can undermine the most rigorous polling methods. But in special elections held to fill seats in state and federal legislatures that have become vacant, Democratic candidates have on average fared five percentage points better than Hillary Clinton did in those districts in 2016. Fundraising totals also suggest Democratic partisans are more fired up than Republicans. Across all House contests in which both major-party nominees have filed reports with the Federal Election Commission, 57% of contributions by individuals have gone to Democrats.

Combining all of these factors and more, our mathematical model of the race calculates that the Democrats' most likely

share of votes cast for House candidates (excluding third parties, and adjusting for districts where candidates run unopposed) is just over 54%. That would be a bigger opposition-party wave than those of 1994, 2006, 2010 and 2014, and fall just short of 2008, when voters pummeled Republicans during the financial crisis. It is consistent with a narrow Democratic House majority, of around 12 seats.

Nonetheless, a takeover is far from assured. Thanks to gerrymandering and to the concentration of Democratic voters in big cities, the Democrats need to win about 53.5% of the vote—roughly their margin in their wave of 2006—just to exceed a 50/50 chance of taking control. The Republicans' best hopes lie with a handful of candidates who have insulated themselves politically from the unpopular president. Voters in competitive districts with large Hispanic populations have not shown the degree of anti-Trump fervour displayed by college-educated white women.

Wildest dreams

In the Senate, it is the Democrats who need an inside straight. A gain of just two seats would give them control, which sounds like a low bar. However, only nine of the 35 races this year involve seats currently held by Republicans. And of those, just two—Nevada's and Arizona's—are in states where Democrats are even faintly competitive in presidential elections.



Neither race will be easy. An outside share of Democratic voters in both states are Hispanics, whose turnout has dropped precipitously in previous mid-terms. In an open-seat race in Arizona between two current congresswomen, Kyrsten Sinema, the Democrat, is clinging to a narrow lead. Dean Heller, the incumbent Republican in Nevada, is roughly tied with his challenger.

Although Democrats could well flip both seats, that would probably not be enough for a majority. The party must also defend its incumbents in five staunchly Republican states, and beat a sitting governor running for the Senate in Florida. The confirmation fight over Brett Kavanaugh may well help Democrats in House elections. However it has coincided with a strengthening of partisan loyalty in Republican states with Senate races.

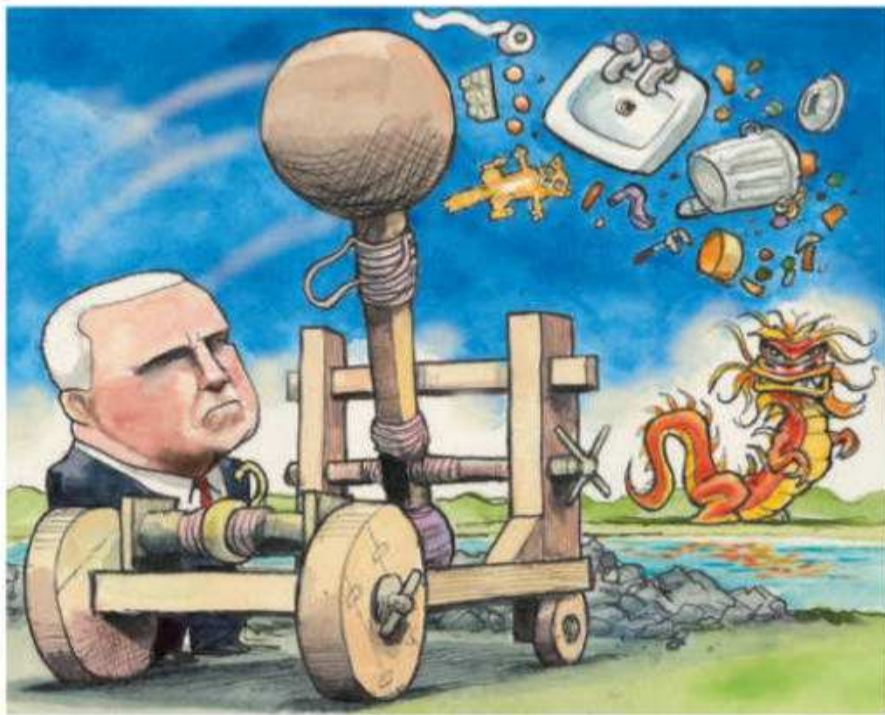
Overall, the vulnerable Democrats have held up remarkably well. The party's incumbents in Indiana, Missouri and Florida are all tied or narrowly leading in post-Kavanaugh polling, while its senator from Montana was clearly ahead in the most recent polls, which were conducted in September. North Dakota, however, looks likely to be Senate Democrats' Waterloo. In all five polls taken since June, Heidi Heitkamp has trailed Kevin Cramer, the state's lone congressman—the last two by double digits. Such deficits are not insurmountable: Ron Johnson, a Republican senator from Wisconsin, rallied from ten points down to win re-election in 2016. And Ms Heitkamp raised \$3.8m in the third quarter, ensuring she will have a large cash advantage.

Nonetheless, comebacks like Mr Johnson's are rare. And if Ms Heitkamp cannot replicate the feat, the Democrats' backup plans to compensate for her loss are in trouble. After a flurry of encouraging polls over the summer, the party's polished, popular candidates in Tennessee (a centrist former governor) and Texas (a charismatic congressman) have fallen behind their opponents. A special election in Mississippi is even more of a long-shot.

Although the nature of Mr Trump's presidency makes it foolish to rule out an October surprise, national-level surveys for Congress tend to be fairly stable. During the past 40 years, the overall polling average has moved by less than a percentage point during the final month of the campaign. However, with the races for both chambers this close, even a modest change could be decisive. Ms Heitkamp's numbers in North Dakota may be temporarily depressed by the media's focus on Mr Kavanaugh. A few good polls for her could double the Democrats' Senate chances. Mr Trump won two years ago thanks to 80,000 votes spread across three states. He may well find the fate of his legislative agenda, the investigations into his campaign and ultimately his presidency decided by a similarly narrow margin. ■

Lexington | The end of the affair

The Trump administration is right to redefine relations with China—but bad at managing them



THE National Security Strategy released by President Donald Trump's administration last year augured a major change in China-US relations. Where its predecessors lauded the merits of co-operation with the emerging superpower, Mr Trump's document promised competition and resistance to Chinese trade and other abuses. The tirade Mike Pence launched against China last week doubled down on that commitment. In a speech delivered at the Hudson Institute, a short walk from Congress and the ongoing Kavanaugh brouhaha, the vice-president castigated the Chinese for bullying investors, buying allies with cheap loans, "tearing down crosses" and much else. This may turn out to be Mr Trump's most significant mark on the world. America's new adversarial posture towards China is overdue, popular and probably irreversible.

That is notwithstanding the fact that the vice-president's speech was in some ways cynical and reckless. Much of it seemed to have more of an eye on the mid-terms than the world. "To put it bluntly, President Trump's leadership is working," he purred. Mr Pence then parroted his boss's recent, probably bogus, claim that Chinese "covert actors, front groups and propaganda" were spreading more disinformation in America than the Russian spies to whom Mr Trump may owe his job. He gave no sense of which Chinese affronts he considered most grievous. He therefore offered only a glint of a counter-strategy. It was disorientating to witness such tawdry politics at such a potentially momentous moment. Conversely, it was a useful reminder, in Trump-drunk Washington, DC, that some things are bigger than Mr Trump.

Sooner or later, America's shift on China was inevitable. After every big hot and cold war of the past century, notes Andrew Krepinevich, a security savant, America's leaders trusted to collective defence. Woodrow Wilson created the League of Nations, Franklin Roosevelt the "Four Policemen"; Clintonians preached "co-operative security". But, as surely as nations rise and fall, power politics returns, and this has been apparent in the current iteration for over a decade. China, like Russia, is testing an American-led system it feels constrained by. Distracted by jihadists and fearing the costs of a new superpower rivalry, America has merely been unusually reluctant to accept that fact. Under Barack Obama, the usual mini-cycle of creeping presidential disillusion-

ment with China seemed even to be reversed. His administration drifted from scepticism about China to resignation.

That explains much of the pent-up support for Mr Trump's more confrontational approach. Though the president's tariffs and bellicose rhetoric are controversial, there is a consensus among the bureaucracy, many businessmen and both parties that it is time to call China out. "China's goal is world supremacy and there is bipartisan support for pushing back," says John Barrasso, a Republican member of the Senate Foreign Relations Committee. "There's a broader, more intense and ideological competition with China than I had appreciated," says Chris Coons, a Democratic member of the committee. It is hard to imagine Mr Trump's successors arguing for a return to trustful co-operation. Yet there are huge uncertainties about what comes next.

Xi Jinping, not Mr Trump, is the main catalyst behind their countries' rivalry. Yet America's next moves will probably shape the first phase of acknowledged competition between the countries. The American pushback already looks broad. To provide an alternative to Chinese credit, Congress has passed legislation to expand American financing of overseas infrastructure projects. The Justice Department has unveiled charges of economic espionage against a Chinese intelligence officer, Yanjun Xu, who has been extradited from Belgium to stand trial. Relations are about to get even rockier. Yet they are unlikely to recall the cold war.

Neither side wants to end all co-operation and it is unlikely, given their economic inter-dependence, they could. China's strategy is also unlike the Soviet Union's. A multi-faceted challenger, not a nuclear-armed bankrupt-in-waiting, it aims to increase its leverage on many fronts while avoiding conflict. "Supreme excellence consists in breaking the enemy's resistance without fighting," wrote Sun Tzu in "The Art of War". If a stand-off ensued, moreover, the rest of the world would not neatly divide between east and west, an essential feature of the cold war. Its history is mainly relevant because it shows where America's competitive advantages lie. Worryingly, Mr Trump disdains most of them.

One of America's advantages is the international system Mr Trump is straining almost as much Mr Xi. It provides avenues to settle, or at least pursue, many of Mr Pence's gripes. The WTO was founded to deal with trade disputes without causing trade wars, the UN as a forum for great powers and to police human-rights abuses. The Trans-Pacific Partnership was negotiated by Mr Obama with a view to checking China's influence in Asia. Mr Trump, having little understanding of institutions or esteem for the moral high ground, rejects them all. He also undervalues the alliances that underpin them, which are a second American advantage. "We're building new and stronger bonds with nations that share our values...from India to Samoa," said Mr Pence. He should check that with Narendra Modi, India's prime minister, whose frustration with Mr Trump, on trade and otherwise, is said to have led India to seek warmer relations with Mr Xi.

Know yourself, know your enemy

America's most important advantage is its democratic system. It is the means by which its leaders obtain consent for the financial and other sacrifices that geopolitical struggles entail. Yet, notwithstanding the support for his approach, it is hard to imagine the relentlessly divisive Mr Trump winning bipartisan approval for any difficult policy. This turns a strength into a potentially serious weakness. America will not be able to sustain a costly rivalry with China unless Americans stand united behind it. ■



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Brazil's elections

A revolution at the ballot box

SÃO PAULO

Jair Bolsonaro, a far-right populist, is poised to win the presidency. That is not the only electoral shock

A STEEP hill and a concrete wall divide the worlds of Gabriela Moura, a student from Paraisópolis, a favela in the city of São Paulo, and Roberto Inglese, a lawyer from the prosperous neighbourhood of Morumbi. But on October 7th the two paulistanos were united in their choice for Brazil's president: Jair Bolsonaro, a far-right former army captain. "All the other politicians are corrupt," said Mr Inglese, who drove his SUV to vote at a private Italian school. "We need someone with a strong fist against crime," said Ms Moura, who feared walking to a government-run day-care centre to vote because she had recently been assaulted nearby.

Such sentiments have brought Mr Bolsonaro to the verge of victory in a run-off, to be held on October 28th. He won 46% of the vote in the first round in a crowded field of candidates. His run-off rival is Fernando Haddad of the left-wing Workers' Party (PT), whose de facto leader is Luiz Inácio Lula da Silva, a former president who is serving a jail sentence for corruption. Mr Haddad enters the second round 17 percentage points behind. Betting markets give Mr Bolsonaro an 85% chance of becoming Brazil's next president.

That would be an extraordinary response to a series of traumas that have befallen Latin America's biggest country over the past several years: the worst recession in Brazil's history; interlocking corruption scandals, known collectively as "Lava Jato"

(Car Wash), which implicated all big political parties; and rising levels of violence. The number of murders reached a record of nearly 64,000 last year.

To fix these problems Brazilians are turning to a politician-provocateur more notable for the extremism of his rhetoric than for anything he achieved in seven terms as a congressman. Mr Bolsonaro has insulted women, blacks and gays. He encourages police to kill suspected criminals, and regards the dictators of the 1970s and 1980s as role models (see Bello).

He crushed candidates with more temperate views and more impressive track records, including Geraldo Alckmin, the nominee of the centrist Party of Brazilian Social Democracy (PSDB). A longtime governor of the state of São Paulo with a big

electoral coalition, Mr Alckmin had 40 times Mr Bolsonaro's allocation of free advertising time on television. It did not help. The upstart got more attention on social media and in the news (in part because he was stabbed at a campaign rally in September). For the first time in three decades the PSDB's candidate failed to win the presidential election or enter the second round.

Almost as startling are the results of the one-round congressional election also held on October 7th. The PSDB lost nearly half its seats in the lower house (see chart). The PT, its longtime rival for national power, will remain a force (probably in opposition) thanks to its strength in the poor north-east. But it lost important races further south. Dilma Rousseff, a Brazilian president who was impeached in 2016, lost her race for a senate seat in Minas Gerais.

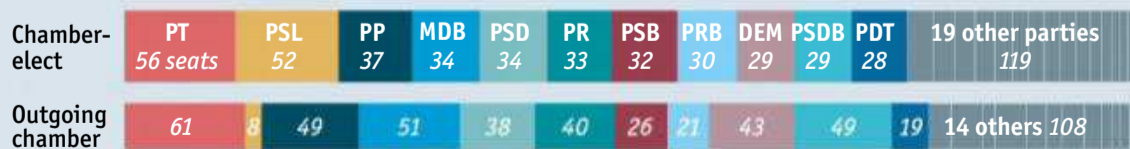
Also humbled was the Brazilian Democratic Movement (MDB), the party of the current president, Michel Temer. The president of the senate, Eunício Oliveira, and the party's chief, Romero Jucá, lost their senate seats. Of 32 senators who ran for re-election, just eight won. In the lower house the re-election rate of deputies dropped from 56% in the previous election to 49%. ▶▶

Scrambling the spectrum

Brazil, 2018 general election

Seats in Chamber of Deputies

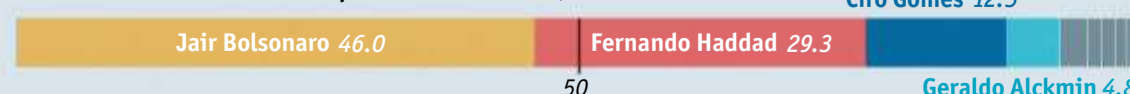
Total seats: 513



Chamber-elect

Outgoing chamber

Share of votes in first round of presidential election, %



Source: Brazil Superior Electoral Court

▶ “It’s the end of a political cycle,” says Luiz Carlos Mendonça de Barros, a former president of Brazil’s development bank.

The incoming congress will suit Mr Bolsonaro, who once called for its temporary closure, better than most analysts had expected. His (misleadingly named) Social Liberal Party (PSL) will be the second-largest in the lower house. Gains for right-leaning parties such as the Brazilian Republican Party (PRB) make the incoming congress the most conservative since the end of the dictatorship in 1985. The *centrão*, a group of small, ideologically flexible parties that originally backed Mr Alckmin, will help

furnish Mr Bolsonaro with a majority for some purposes if he wins the run-off.

It is easier to say what Brazilians rebelled against—the corruption, crime and economic chaos of recent years—than what they voted for. The clearest mandate is for Mr Bolsonaro’s tough-on-crime conservatism. The elections show that the “common man” has conservative attitudes on gay marriage, abortion and the death penalty, says Fernando Schüller, a political scientist at Insper, a university in São Paulo. The “bullet, beef and Bible” parties, strengthened in this election, will back much of Mr Bolsonaro’s agenda if he wins.

His plans to loosen gun control and lower the age of criminal responsibility are likely to encounter little congressional resistance. As he reduces environmental protections much of congress may cheer him.

Less certain is whether Mr Bolsonaro will win support for contentious economic reforms. His chief economic adviser, a free-marketeer called Paulo Guedes, wants to reduce pension spending and privatise state-owned companies. Financial markets, rightly worried about Brazil’s public debt, now 84% of GDP, are giddy at the prospect. On the day after Mr Bolsonaro’s near-victory Brazil’s stockmarket ▶▶

Bello | Flashbacks to 1964

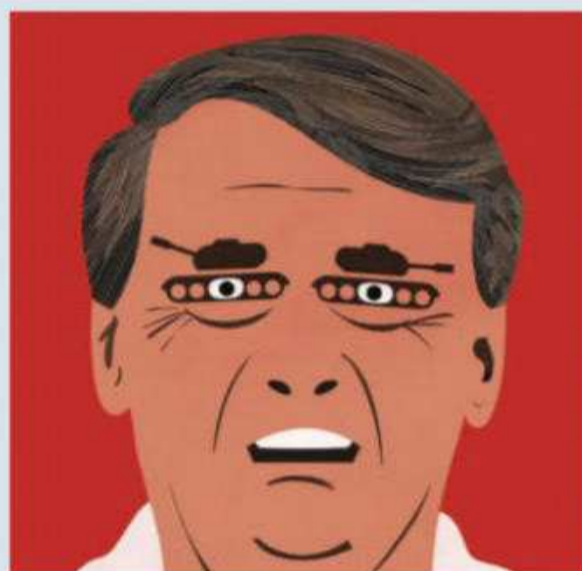
Brazil’s soldiers are not itching for power. More likely, they would restrain Jair Bolsonaro

ON APRIL 1st 1964 units of the Brazilian army toppled the democratic government of João Goulart, a left-wing president. They did so with the support of the elected civilian governors of the three most important states—Minas Gerais, Rio de Janeiro and São Paulo—and much of the congress. The politicians were convinced that the army would merely hold the ring until the election due in 1965. They miscalculated: the generals went on to rule the country for two decades.

Some Brazilians see a similar civilian-military collaboration, in reverse, in the likely victory in the presidential election this month of Jair Bolsonaro, a former army captain. Mr Bolsonaro is a fervent defender of the military dictatorship and a fan of Chile’s former dictator, Augusto Pinochet. He has said he would appoint military people as ministers. His running-mate is Hamilton Mourão, a retired general who last month mused about a “self-coup” if the country slid into anarchy. Partly on Mr Bolsonaro’s coat-tails, 17 military men and seven police officers, all on leave, were elected to congress on October 7th.

The army has edged towards the political arena in other ways. In April, shortly before the supreme court considered an appeal by Luiz Inácio Lula da Silva, a former president from the left-wing Workers’ Party (PT), against his jailing for corruption, General Eduardo Villas Bôas, the commander of the army, tweeted that his institution “shares the desire of all good citizens to repudiate impunity”. The court rejected the appeal. The new supreme-court president has appointed a general as an adviser.

Only three years ago Fernando Henrique Cardoso, a former president, could say that, despite an economic slump and a huge corruption scandal involving



many politicians, Brazil had evolved because “we know the names of supreme-court justices but not of generals.” It is worrying that this is no longer true. But is it worse than that?

Certainly there are a few parallels with 1964. Now, as then, Brazilian politics is polarised between left and right. Goulart was a would-be reformer but an ineffectual one. He was a disastrous manager of the economy, just as the PT was under Dilma Rousseff, Lula’s successor, who governed from 2011 until she was impeached in 2016. In 1964 the military plotters feared, not without reason, that Goulart was planning his own coup against congress and the governors. Less plausibly, they feared that he was leading Brazil down the road of Fidel Castro’s then-recent communist revolution in Cuba, just as Mr Bolsonaro’s supporters fear, wrongly, that the PT would turn Brazil into Venezuela.

Yet none of this means that Mr Bolsonaro, assuming he wins, would or could attempt to replicate the dictatorship. His rise reflects widespread hatred of the PT and a popular demand for change, economic renewal and security in the face of a failing

political system, economic slump and a crime wave—but not necessarily for military rule. “This is not the cold war,” says Matias Spektor, who teaches international relations at the Fundação Getúlio Vargas, a university. The media and a vibrant civil society support democracy.

Neither is there reason to believe that the armed forces want to take over. They are proud to be Brazil’s most respected institution. General Villas Bôas has said that “hotheads” who call for a coup are “crazy”. He has criticised efforts, which Mr Bolsonaro champions, to involve the army in fighting organised crime. (It is already policing the city of Rio de Janeiro.) Most senior officers are moderates who don’t want to take unconstitutional action, according to Alfredo Valladão, a defence specialist. “The army will take its own decisions”, not bow to Mr Bolsonaro, he says. Indeed, if Mr Bolsonaro wins, its resistance to complete civilian control may prove to be a restraint on him. The army would feel forced to intervene, Mr Valladão adds, only if Brazil slid into large-scale political violence.

More than an organised right-wing movement, Mr Bolsonaro commands an authoritarian current of opinion. He may be more intent on dynasty than dictatorship. One of his sons has become the congressman with the most votes; another was elected senator; a third is his foreign-policy adviser. Rather than a flashback to 1964, Mr Bolsonaro represents a more insidious threat. He expresses extreme views. He has said that the dictatorship erred in “torturing rather than killing”. He wants the police to kill more “criminals”, and to liberalise gun ownership. He has talked about packing the supreme court. As Mr Spektor puts it, it is the quality of Brazilian democracy, rather than its survival, that is at more immediate risk.

rose by nearly 5%.

That looks like overconfidence. The *centrão* helped vote down a pension-reform proposal put forward by Mr Temer. Some in its ranks back budget-busting subsidies to agriculture and industry. Many new PSL legislators are former military officers and policemen who are protective of their generous pensions. “Society and the markets may be fooled for a while, but it will be surprising if they follow a liberal agenda,” says Marcos Lisboa, Insper’s director.

With 30 parties, the incoming congress is even more fragmented than the current one, which will make it harder to manage. The markets’ enthusiasm for Mr Bolsonaro cooled a bit after he criticised Mr Temer’s pension proposal and after news that Mr Guedes is under investigation for fraud (he denies wrongdoing). Brazil only functions when it has “a president with political experience and aptitude for dialogue”, says Maria Hermínia Tavares de Almeida, a political scientist at the University of São Paulo. Those are not Mr Bolsonaro’s strengths.

With victory in sight, he is playing down his authoritarian impulses. “We will be slaves of the constitution,” he promises, seeking to reassure voters who fear he is plotting to subvert democracy. Some of his supporters are not bothering to hide their nastiness. PSL candidates in Mr Bolsonaro’s home state of Rio de Janeiro who smashed a sign paying tribute to Marielle Franco, a left-wing councilwoman murdered in March, went on to win their races.

Many Brazilians voted for Mr Bolsonaro not because they like him but because they think the PT, which governed when the economy slumped and corruption flourished, is worse. To have any chance of defeating him, Mr Haddad, a former mayor of São Paulo and education minister, must placate those voters while retaining the PT’s core supporters. That will not be easy. Campaign ads that declare “Haddad is Lula” may impress millions of Brazilians who stopped being poor when Lula was president (from 2003 to 2010). But they suggest to others that Mr Haddad would be the puppet of the jailed former president.

The PT has spotted the danger. Lula has disappeared from the campaign’s posters. The candidate, who is more moderate than many of the most influential figures in the PT, has signalled his pragmatism by announcing that he will appoint a businessman to be his finance minister. He has promised a plan to combat crime.

On the eve of the first round he had a lower rejection rate than Mr Bolsonaro: 36% of Brazilians say they would not vote for Mr Haddad under any circumstances, reports IBOPE, a polling firm; 43% say the same of Mr Bolsonaro. That offers only a glimmer of hope. Mr Bolsonaro can win “if he stays quiet”, says Thiago de Aragão of Arko Advice, a consultancy. Mr Haddad must speak loudly—in his own voice. ■

Canada

Big bong, little bang

OTTAWA AND TORONTO

The main high from legalisation of cannabis is financial

A BLACK dragon with white claws, its wings etched with Escher-like designs, has a vitrine of its own at the centre of the Boroheads glass gallery in Toronto. The “dab rig” (for smoking cannabis oil) sells for C\$8,000 (\$6,170). Such items are in high demand, according to the gallery’s co-owner, who calls himself James Bongd. He says “there’s a lot of speculative buying” of cannabis-related paraphernalia, especially of pieces by famous artists like Cap’n Crunk, the dragon’s creator.

Such speculation is the main sign that Canada is about to become the first large country to legalise cannabis for recreational use nationwide, on October 17th. It will then become legal to consume fresh or dried cannabis and cannabis oil, and to grow at home up to four plants. (Uruguay passed a law to legalise cannabis in 2013.) Investors are bidding up the share prices of cannabis-connected companies. In the past two months shares in Tilray, which grows medical marijuana, have risen in value from C\$25 to nearly C\$130, bringing its stockmarket capitalisation to C\$12bn.

Cannabis-themed businesses are sprouting. The Toronto Hemp Company, an emporium around the corner from Boroheads, offers equipment for home growers in the basement; one level up are rolling papers, humidors and candles with just the right scent for banishing the smell of pot; on the top floor are glass bongs in nightmarish shapes with padded carrying



Puff the magic dab rig

cases. Banks, though, are being cautious. They fear falling foul of the United States’ Patriot Act, under which banks that participate in the drug trade can be punished.

For most Canadians the big bong this month will feel like an anticlimax. It “will pass relatively unnoticed”, says Patricia Erickson, author of “Cannabis Criminals”, a book about how punishment affects drug users. Canada has been heading towards legalisation since 1972, when the Le Dain Commission, appointed by the government, recommended that possession of cannabis be decriminalised. That never happened. But in 2000 the Supreme Court ordered the legalisation of medical marijuana. Nearly 331,000 registered patients buy pot produced by 120 licensed facilities; some patients may be dealers as well.

People who just want to get high have not had a hard time doing so. Young Canadians are the most avid users in the rich world: 28% of children from 11 to 15 years old have consumed cannabis, according to a report by UNICEF in 2013. That finding helped persuade the Liberal government of Justin Trudeau, which was elected in 2015, to legalise the stuff. It hopes to push organised crime out of the business of selling cannabis and to keep children away from it. It set 18 as the minimum legal age for smoking weed and plans education campaigns to discourage younger teens from indulging. Some provinces have put the smoking age higher.

Criminals will not disappear right away, in part because neither federal nor provincial governments are prepared to cope with demand for legal cannabis. The federal government, which regulates production and health matters, has issued only enough permits to supply 30-60% of demand in the first year, according to a report by the C.D. Howe institute, a business think-tank.

Most provinces, which are responsible for regulating the sale of cannabis, will have few legal retail outlets on October 17th. In Ontario, the most populous province, there will be none. Its Progressive Conservative government, which took over from a Liberal one in June, dropped plans to sell cannabis through government-owned shops. Private retailers will take over. But the first one will open next year. In the meantime, Ontarians can buy cannabis online from the government.

“Every legal gramme produced will be sold,” says Chuck Rifici, chairman of Auxly, a firm that helps others produce and market cannabis. When that is smoked up, consumers will turn to the illicit market. Mr Rifici notes that after prohibition of alcohol ended in the United States in 1933, legal distillers could not meet demand for 15 years. He expects legal suppliers of cannabis to catch up more quickly in Canada. But consumers will be stuffing black-market weed into their bongs for years to come. ■



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Education in India (1)

The war on private schools

LUCKNOW

Indian states are reacting to the popularity of private education in different ways

THE 80 or so pupils in Class 9 of YDVP Inter College, a private school in Uttar Pradesh, India's most populous state, chorus "good morning" to the visitor, and then turn their attention back to the maths teacher. Smartly dressed in blue-and-white uniforms, the children are seated at desks in brick classrooms in a compound surrounded by fields. Fees are Rs170-250 (\$2.29-3.37) a month, depending on the grade. That is a stretch for the area's subsistence farmers and labourers, but the school, which has 1,000 pupils, is full. The 11 teachers are paid Rs2,000-5,000 a month, depending on their age, experience and quality.

At the government-run Upper Primary School, Khujehta, a few miles away, 63 children are enrolled, of whom 50 are present on the day of your correspondent's visit. They sit on the floor in three classrooms, dressed in grubby pinkish government uniforms, looking at textbooks. Nobody is teaching them; the school's two teachers are sitting on the veranda. They are paid Rs50,000 and Rs40,000 a month apiece. The average income in Uttar Pradesh is Rs4,600 a month.

Enrolment in the government school has been falling, say the teachers. They blame it on the fact that the head of the village *panchayat* (council) has opened a private school nearby (not YDVP) and people are sending their children there to curry favour with the big man. Bharat Lal, a la-

bourer in the nearby village, has another explanation: "My children will not go to the government school because they say there is no education, so I have to pay for private school." His children attend YDVP.

India has long had elite private schools, but over the past decade low-cost private schools have also boomed. Their rolls increased from 44m in 2010-11 to 61m in 2016-17, while those in government schools fell from 126m to 108m in the 21 of India's 29 states for which there is any data. Geeta Kingdon, a professor at University College London who also runs a private school in Lucknow, suspects that the private-school numbers are an underestimate because many of them are not registered with the government.

Bottom of the class

There are two reasons for the shift. One is the failure of public education. Just how bad India's schools are became clear when two Indian states participated in a scheme that compares attainment around the world and came 72nd-74th out of 74 jurisdictions in reading, maths and science (academic research suggests private schools are little better). The other reason is the popularity of English-medium education, driven by a combination of social status (English has never quite lost the cachet it had as the language of the ruling class in colonial times) and pragmatism (the internet and globalisation have magnified its

usefulness). The great majority of private schools teach, or claim to teach, in English.

Shrinking pupil numbers are an embarrassment to chief ministers. "My one target when I took this job was to reverse the migration out of government schools," says Sarvendra Vikram Singh, director of education for Uttar Pradesh.

State governments are reacting in two ways. One is to make life difficult for private schools. The Right to Education (RTE) Act of 2009 sets out detailed requirements which they must meet—to have a classroom for every teacher, a library and a kitchen, for instance—in order to get the official "recognition" (ie, licence) they need to operate. Although many government schools do not meet these norms, the requirements are being used to close private schools. Shivnandan Singh, an education officer in Lucknow, the biggest city in Uttar Pradesh, with 215 government schools and 200 recognised private schools on his beat, says he has closed down 60 unrecognised private schools this year. The axe is hanging over a further 69, which have applied for, but may not get, the right paperwork. "Up until now we have been going easy on them but this year [the RTE Act] is being implemented strictly." The press is supportive, carrying stories about the closure of "fake schools".

But recognition, as Ghanshyam Chaturvedi found, is not just a matter of following the rules. He used to run a 250-pupil school in Lucknow. "The officials were saying, 'Come to my office', hinting that I should give them money under the table," he claims. "How can I give them money? I don't have enough money, and anyway I don't want to be part of their corruption." The school was closed down.

Other school-owners take a different tack. "I gave a donation of one lakh [Rs100,000] to get recognition," says one. ▶▶

▶ “They said I would go to jail if I didn’t.”

Delhi, with a fast-growing population and overflowing public schools, cannot afford to shut private schools. But the Aam Aadmi Party (AAP), which runs the city, is restricting their freedom to raise fees. That, presumably, will discourage investment in the sector.

To its credit, the AAP has also pursued a second approach to reviving government schools: trying to improve them. “The state of the schools was worse than we expected,” says Atishi Marlena, a former adviser to Manish Sisodia, the local education minister. “There was the smell of toilets in the classroom, children sitting on the floor, children not there, teachers not there.” Mr Sisodia has taken to visiting schools unannounced, which is reckoned to have sharpened up performance. He says state-school pupils now do better in exams than private-school pupils. But no teachers have been fired for absence, or anything else—teachers’ unions wield enormous political clout, and tend to torpedo reforms that threaten their position.

Outside Delhi, falling enrolment means small, shrinking schools, which makes it hard to run an education system well. Closing schools is unpopular, but Rajasthan has shut about 8,000 and merged others; the number of schools has dropped from 82,000 in 2013 to 63,000 now. It has also decentralised management somewhat. Although head teachers still do not have the power to hire, fire or discipline other teachers, they can recommend disciplinary action to a higher administrative level. “We are thinking of giving power over disciplinary actions to the head teachers, but these are very sensitive matters,” says a local official. “Now at least the teachers are coming to school and teaching.”

Uttar Pradesh is trying to improve quality by addressing a different problem: the range of abilities in classes. Some Grade 8 children can’t read, and laggards who have slipped too far behind may never catch up. So this year, in partnership with Pratham, an NGO that has pioneered the system, the state government is introducing “graded learning”. Pupils will be divided into three ability levels, rather than the standard age-determined grades.

Many states are trying another technique to increase the appeal of government schools: teaching in English. In Uttar Pradesh 5,000 schools converted to English-medium in April this year. That can be a challenge for both teachers and pupils. At Kurauni Primary School in Lucknow, the head teacher, Pradeep Pande, says that most parents are illiterate. Learning is harder for such children in Hindi, let alone in a language which nobody uses either at home or in the playground. Whereas the youngest children are being taught in English, classes are bilingual for Grades 3-5, because “if you teach them purely in English,

Education in India (2)

The happiest days of your life

DELHI

The schoolchildren of the capital are being taught how to be mindful

AT 8am on a Saturday morning there is a silence in Class 8A at Kautilya Government Sarvodaya Boys’ Senior Secondary School in Delhi. The pupils sit with their eyes closed; the teacher has told them to concentrate on the noises around them. Outside the sound of heavy monsoon rain muffles the honking traffic.

This is the “mindfulness” section of the new “happiness” curriculum, which was introduced in July by the Aam Aadmi Party (AAP), the reformist outfit that runs the city government. The idea of the classes, which include storytelling, self-expression and work on relationships, is to improve the children’s well-being and ability to concentrate.

India comes 133rd out of 156 in the UN’s most recent World Happiness Report, the lowest out of the six South Asian countries included and annoyingly far behind Pakistan (75th). The problem, says C.S. Verma, the school’s head teacher, is India’s huge population: “More people means more competition, more competition means more stress.” The pressure on children in Delhi, he says, is particularly severe: “Most of the parents are migrants from the rural areas. They reside in the slums and are determined that their children should not stay there. Every parent wants their child to become

a big success.”

The children all like the happiness curriculum. They say that their parents were sceptical at first—as well they might be, seeing hours that could have been spent on maths or English whiled away in meditative silence—but have come round to the idea. There is some science to back it up: a study of similar classes in Bhutan, Mexico and Peru showed improvements both in pupils’ well-being and in their academic results, although there have been no follow-ups to show if the gains are sustained.

Peculiarly, the meditative technique used in the curriculum, which originated in India, is referred to by the English word “mindfulness”, even in Hindi-medium schools, although there is a perfectly good Hindi word for it, *dhyana*. Does “mindfulness” no longer play a part in Indian life? “We have lost the concept,” says Sanjay Sood, a chartered accountant on the school’s management committee. “A hundred years ago, our education was all about meditation, but English education made us forget all this.” Sudhan Rawat, a parent and migrant from the nearby state of Uttarakhand, has a different explanation. “At our level of society, we’re too busy working. We don’t have time for that sort of thing.”



Another gruelling happiness class

they won’t understand anything.” Even so, Grade 5 pupils struggle to learn terms like “chlorophyll” and “photosynthesis” alongside Hindi explanations of plant biology. But enrolment has risen from 117 in April, before the switch, to 185 now.

These measures may be having the desired effect. In both Uttar Pradesh and Rajasthan, enrolment in government schools is growing again. More important, though, is

the question of what impact they will have on educational attainment. Under Narendra Modi, the prime minister, the government has got serious about collecting data on whether children are actually learning anything. So in a couple of years it should become clear whether the campaign to stop children moving from government to private schools has improved Indian education or made it worse still. ■

Pakistan's economy

Imran can't

ISLAMABAD

The prime minister changes course and turns to the IMF

ON THE campaign trail, Imran Khan, Pakistan's new prime minister, presented himself as the man to break the country's addiction to hand-outs from the West. Whereas previous governments used to go begging to the IMF for funds, he said, his Pakistan Movement for Justice (PTI) would focus instead on recouping billions of dollars hidden from the taxman abroad. But after less than two months in office, Mr Khan reversed himself on October 8th. His finance minister announced that the government would, after all, be seeking a big loan from the IMF.

The economy's troubles are not Mr Khan's fault. The previous government, led by the Pakistan Muslim League-Nawaz (PML-N), lifted annual GDP growth to a ten-year high of more than 5%. But it did so on the back of expensive imports of fuel and machinery, even as its determination to prop up the Pakistani rupee hurt export industries such as textiles. The result has been dramatic growth in the current-account deficit since early 2016 (see left-hand chart). Foreign-exchange reserves have fallen sharply as a result (see right-hand chart). They currently stand at \$8bn, which is not enough to cover the expected bill for imports and foreign-debt repayments until the end of the year. To keep the lights on (literally—many of Pakistan's power plants run on imported coal), the government needs to find around \$10bn in short order.

Even Mr Khan could see that Pakistan was going to need a loan. But for the past few weeks he has desperately been seeking alternatives to an IMF bail-out. In a televised address, he asked all Pakistanis living abroad to donate \$1,000 apiece to the government, ostensibly to help pay for a big dam. To show that government funds would no longer be wasted, he has engaged in public displays of austerity. The government has auctioned off eight buffaloes kept to provide milk for the prime minister's residence, along with 61 luxury cars.

As recently as October 7th Mr Khan held out hope that "friendly countries" would stump up loans, sparing him the embarrassment of turning to the IMF. Mr Khan has courted Saudi Arabia, in particular, visiting it on his first official trip abroad. Yet the Saudis did not offer a bail-out (it was "awful to beg", sighed the commerce adviser, Abdul Razzak Dawood). Instead, they volunteered to invest in the China-Pakistan Economic Corridor (CPEC), a \$60bn infrastructure scheme financed



mainly by China. That seemed to upset China, Pakistan's "iron brother", oldest ally and another potential donor, so was dropped. Some observers had imagined that China might increase its lending to Pakistan rather than have the IMF pore over the details of the contracts behind CPEC, which have not been made public and are thought to be unfavourable to Pakistan. But even the prospect of a row over

CPEC does not seem to have been enough to persuade China to become Pakistan's lender of last resort.

As Mr Khan hunted for benefactors, investors panicked. The stockmarket had its biggest daily drop in a decade on October 8th, doubtless spurring the government's reluctant reversal the same day. The delay, says Khurram Hussain, a journalist, has weakened Mr Khan's hand in negotiations with the IMF over the terms of any loan. In addition to demanding a good look at CPEC contracts to make sure Pakistan can afford them, the fund is likely to push for further devaluation of the rupee, increased tax collection and higher interest rates. None of these readily aligns with Mr Khan's promise to create an "Islamic welfare state". But if Mr Khan was unsure of it before he assumed power, he must surely now realise that Pakistan's problems run deeper than corrupt leadership. And if voters were unsure of it before they cast their ballots, they are quickly discovering that Mr Khan, for all his self-assurance and star power, cannot fix things quite as quickly or easily as he promised. ■

Women's rights in Central Asia

Sing for solidarity

ALMATY

A Kyrgyz singer has sparked a debate about sexism

WHEN Zere Asylbek, a 19-year-old singer from Kyrgyzstan, took to YouTube with a lyrical cry for equality, she did not expect to draw much attention, let alone death threats. The song, called "Kyz" (Girl), was hardly militant. Zere (her stage name) yearned in husky tones for a new era when "no one will tell me, 'Don't wear this, don't do that.'" In a country of 6m people, her clip went viral—and the self-appointed guardians of Kyrgyz morality began telling

Zere what to wear and do. One threatened on social media to cut off her head.

Her attire seemed to arouse even more ire than her message. In the video she wears a miniskirt and an open jacket with nothing (horrors!) but a lacy purple bra underneath. Women in various outfits, including one in a hijab, stand alongside as she urges them to unite for freedom. Moralists declared the glimpses of cleavage and flashes of bare midriff *uyat*, a word mean- ▶▶



Frogmarched to the altar

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Free speech in Singapore

Gavel-rousers

SINGAPORE

Mild social-media posts scandalise the city-state's judges

IT WAS hardly a zinger. “Malaysia’s judges are more independent than Singapore’s for cases with political implications,” wrote Jolovan Wham, an activist, on Facebook on April 27th. On October 9th Singapore’s high court found him guilty of “scandalising the judiciary”. He was not the only rabble-rouser. John Tan, a politician from the opposition Singapore Democratic Party, had observed in May: “By charging Jolovan for scandalising the judiciary, the [Attorney-General’s Chambers] only confirms what he said was true.” Mr Tan was convicted of the same crime. The pair have not yet been sentenced, but face up to three years in prison and a fine of as much as S\$100,000 (\$72,000).

It is the first time that Singapore’s new, beefed-up contempt-of-court law has been used. The amendments came into force last October. One effect was to broaden the definition of scandalising the judiciary. Previously actions that posed a “real risk” of undermining public confidence in the courts were considered a crime. Now a mere “risk” will do. The changes also made the penalties more

severe and expanded the scope of the rules to include social-media posts.

Even before being strengthened the contempt-of-court law got plenty of use. In 2008 three men (including Mr Tan) were convicted for turning up at the Supreme Court wearing T-shirts depicting kangaroos in judges’ robes. Later a British journalist was sentenced to six weeks in prison for writing a critical book about the death penalty in Singapore. Cartoonists and bloggers have also been prosecuted. Li Shengwu, a nephew of the prime minister, is currently on trial for calling the government “very litigious” and the judiciary “pliant”.

The government has little compunction about curbing freedom of expression. A law adopted in 2017 makes it harder for groups to assemble in public. Recent changes to rules that govern the creation and exhibition of films allow film-makers’ possessions to be seized without a warrant. Many worry that proposed laws aimed at countering fake news could be used to limit free speech yet more. For some, the government’s repressive instincts are the real scandal.

ing “shameful” that is widely used in Central Asia to censure female behaviour.

Some detractors, including women, objected to Zere’s clothing on religious grounds. Most Kyrgyzstanis practise a moderate form of Islam. Those who have castigated Zere most vehemently seem to be social conservatives who want women to know their place. The controversy has also inspired an ardent defence of Zere by both men and women, some of whom have posted photographs of themselves in bras to show solidarity.

Zere is not alone in facing denigration and threats for speaking up for equality of the sexes in Central Asia. In Tajikistan Marifat Davlatova, an artist, has been dubbed a “disgraceful whore” for her portraits of nude and topless women intended to protest against sexual harassment and the objectification of women.

Before the Soviet Union collapsed in 1991, the authorities in Kyrgyzstan and the other four Soviet republics of Central Asia claimed to have emancipated the region’s formerly downtrodden women. In the 1920s, under a policy known as *hujum*, women were encouraged to burn their veils to show they had been liberated. Women did indeed start to work outside the home and fields in Soviet days, but they also continued to do the housework

and look after the children. Senior jobs almost always went to men.

The picture remains mixed. Many women have prestigious jobs. Kyrgyzstan has had a female president, Roza Otunbayeva. But old traditions persist. Women are still expected to marry young, bear children and obey husbands and mothers-in-law.

And not all women marry willingly. In Kyrgyzstan the kidnapping of brides, known as *ala-kachuu* (grab and run), is rife. Some 12,000 women are abducted every year, sometimes by complete strangers who coerce them into wedlock. The victim’s family may also press her to marry her kidnapper, even—or especially—if he has raped her, since many still consider it *uyat* for a woman to return home after being kidnapped. It was the fate of a kidnapping victim that inspired Zere to write “Kyz”. Earlier this year Burulay Turdalieva, a 19-year-old student, was stabbed to death by her abductor in a police station after her family reported the crime.

Zere says to her critics, “Shut up, and listen and try to understand what this is about.” One man who is listening is her father, who defends her on Facebook as a “freethinking girl in a free Kyrgyzstan”. Though he hinted at disapproval of her clothing, he eagerly endorsed her message: “Daughter, make your own decisions!” ■



Elections in Bhutan

Polite but firm

THIMPHU

Anti-incumbency grips the land of the thunder dragon

IT MUST be the most genteel canvassing operation in the world. Lily Wangchuk, who is running for a seat in the National Assembly, chats with a shaven-headed monk in the shade of a weeping willow, she in a silk *kira* (traditional dress for Bhutanese women), he in maroon robes. A passer-by stops to laud her expertise. A shopkeeper decries the coarseness of democracy—it is only ten years since the king surrendered absolute authority—before insisting that she stay for a cup of tea.

Yet the voters of Bhutan, a Himalayan country of 800,000 sandwiched between India and China, are capable of delivering harsh verdicts. The second round of voting takes place on October 18th. In the first, last month, voters selected two parties to nominate candidates for the second round. To general astonishment (polling is not permitted), the ruling party was eliminated. An upstart outfit, the Druk Nyamrup Tshogpa (DNT), took first place and Ms Wangchuk’s relatively established opposition party, Druk Phuensum Tshogpa (DPT), came a close second.

Many Bhutanese harbour mixed feelings about the transition to constitutional democracy. Echoing the shopkeeper, a grandee declares that, given the choice, the people would “take back monarchy in a heartbeat”. The surprise was that so many of the 290,000 voters were keen to kick out the incumbent government. Its economic record, at least, had been impressive: in its five years in office annual GDP growth had accelerated from 2% to 7%.

Differences between the parties’ plat- ▶▶

forms were subtle at best. Foreign policy is not mentioned explicitly, yet it may have played a significant role. Bhutanese remember the fate of two other Himalayan kingdoms, Tibet and Sikkim, which were swallowed up by China and India respectively. Last year Indian and Chinese troops had a tense confrontation over a disputed patch of territory where China, India and Bhutan all meet. India has near imperial power in the kingdom, and throws its weight about in Bhutanese politics. After the prime minister of the previous DPT government met his Chinese counterpart on the sidelines of a conference in Brazil in

2012, India grew chilly. Six days before the subsequent election, it abruptly ended subsidised sales of cooking gas to the kingdom. The pain was instant, and the DPT was booted out.

This year both the DPT and the DNT touched on external matters in a roundabout way in their campaigns, by complaining about foreign debts for dam-building, dependence on imported fuel and the government's failure to attract a Japanese embassy—all matters that hint at India's overbearing influence. "Sovereignty, security, self-sufficiency" was the DPT's dog-whistle slogan. A young businessman

wishes his country were more open to China. He sells caterpillar fungus, which is used as an aphrodisiac there. He believes that Chinese tourists bring more money to the kingdom than those of all other nationalities put together.

Ms Wangchuk, however, is most interested in social issues, in particular the treatment of women. One of her aides, a 27-year-old, argues that youth unemployment is to blame for depression, suicide and drug use, and could be reduced by a more engaged and representative government. As he holds forth, some older voters listen quietly—too polite to disagree. ■

Banyan | So long

Tokyo's greatest institution makes way for a car park

LAST Saturday at six in the morning the handbells rang and auctioneers launched with guttural chanting into the last auction of bluefin tuna at Tokyo's Tsukiji market. The next day the market closed for ever. A procession of its distinctive "turret trucks"—miniature flat-beds driven by standing drivers—made their way from Tsukiji, on the edge of the earthy Shitamachi or Lower Town, a historically working-class area, to Toyosu, a joyless landfill in Tokyo Bay. Tsukiji, the greatest fish market on Earth, is gone.

Built in the 1930s, it was a model of functional modernism. Fish and seafood were brought from the quay via auctions and wholesalers in curved rows of warehouses through to end-buyers. City officials had long claimed that the market was no longer fit for purpose. The buildings were old. A big earthquake posed risks, not least of the release of asbestos from crumbling walls. And the site was unhygienic. Tokyoites are on alert for an exodus of sashimi-starved rats from the disused buildings.

But there is no getting around it. To close Tsukiji is to kill something vital. As a great sushi master, Hachiro Mizutani, once told Banyan, Tsukiji is "not just Tokyo's best known brand. It's the people's market." Its 23 hectares sat at the heart of the world's seafood trade, dealing on a typical day with 1,500 tonnes of fish and seafood—450 species in all.

The human connections were many and varied, too. The economy of the marketplace was etched across the neighbourhood in complex social, cultural and ritual patterns. Over 60,000 people made a living in or around Tsukiji as auctioneers, stevedores, clerks, grocers, restaurateurs and knifemakers. In this warren, Mr Mizutani had dealt with the same handful of trading families for over half a cen-

tury. Now many family businesses are calling it a day. To close Tsukiji is to sever Tokyo's remaining link to its vibrant, mercantile past, celebrated in countless old woodblock prints. It was a natural target for bureaucrats tidying up the world.

Two years back, Tsukiji had hopes of a reprieve. The Toyosu site, where a coal-gas works had once sat, was heavily contaminated. The new governor of Tokyo, Yuriko Koike, put the move on hold. In the end, the inexorable logic of Tokyo's hosting of the Olympic games in 2020 spelled Tsukiji's demise. The site, after all, is needed as a car park for Olympic vehicles. After that, presumably, the developers will move in.

What is it about the Olympics? In preparation for its previous hosting of the games, in 1964, Tokyo disfigured itself by filling in the canals that made the city the Venice of the East, and built ugly expressways on top of them. And in Beijing, where Banyan lived when its bid for the 2008 games was accepted, a corrupt Communist elite, on the pretext of preparing Beijing for its global debut, displaced hundreds of thousands of people and razed the *hutong*, the network of alleyways laid out in the

13th century when conquering Mongol armies settled around the emperor they had just installed. The destruction of Beijing's ancient fabric was a tragedy. The city's bombastic new plan worships faceless power and the dour deity of the motor car. A few *hutong* are preserved as an ersatz tourist experience, just as Ms Koike intends Tsukiji's outer market to become a culinary theme park.

The Olympics have not been all bad in Asia. Sydney's site for the games in 2000, 14km out of town, is ageing well as its trees mature. But a predicted post-Olympic tourist bonanza never materialised. Sydneysiders stuck in traffic jams still grumble that all that money would have been better spent improving the city's creaking infrastructure.

And don't forget the 1988 games in Seoul. They helped end dictatorship and bring in democracy. On the games' eve, students and others took to the streets demanding constitutional government. In the full glare of the world's media the strongman, Chun Doo-hwan, could hardly beat them all up as past practice would have demanded. Soon he was gone, and elections took place. Today South Korea is a beacon of democracy.

Many predicted that the Beijing games would move China in the same direction. But instead of acting as a spur for openness, they were presented as the world coming to China, like so many tribute missions. The Olympics presaged the imperial pomp of President Xi Jinping.

In Sydney in 2000, teams from North and South Korea marched together at the opening ceremony. Now, the two countries want to jointly host the 2032 Olympics. If it nudged North Korea towards democracy, that would be something to celebrate. Luckily there's no fish market in Pyongyang to get nostalgic about.





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Law enforcement

Unwanted red notice

BEIJING

By arresting the boss of Interpol, China has drawn attention to the murkiness of its politics and legal system

WHEN in 2016 a senior Chinese policeman was elected president of Interpol—an international agency that helps police to co-ordinate across borders—state media portrayed the event as a vote of confidence in China's justice system and a milestone in the country's rise. Yet less than two years after he took office, the presidency of Meng Hongwei (pictured, left, at an Interpol meeting in Beijing last year) has come to a chilling end.

Chinese officials took the 64-year-old into custody in late September, after he flew back to China for what was supposed to be a short trip away from Interpol's headquarters in the French city of Lyon. They did not admit that they had done so until October 7th, and only after Interpol had issued a statement saying that its president's whereabouts were unknown.

It had been a strange few days, during which all that was known was that Mr Meng's wife, Grace, had reported him missing to French police. On October 7th she appeared before reporters in Lyon, keeping her back to the cameras in order to hide her face. She showed the journalists an emoji of a knife that had been sent from her husband's WhatsApp account shortly after he arrived in China. She said she had understood the message as a sign that he was in danger, and that she had heard nothing from him since. French officials said Ms Meng and her two children were under police protection, having received a

threatening call. Interpol said Mr Meng had resigned.

It will probably never be known how long China would have waited before announcing Mr Meng's arrest had not his wife and employer expressed their concerns about him in public. On October 8th China's Ministry of Public Security released a report of a pre-dawn meeting that day of its Communist Party committee. It quoted participants as saying that Mr Meng was being investigated for allegedly taking bribes and for other unspecified wrongdoing. They said that Mr Meng's detention was evidence that no one was above the law, and that Mr Meng had "only himself to blame" for his difficulties. Attendees agreed on the need to "maintain a high level of conformity with the political stance, the political direction and the political principles of the party centre" with the country's leader, Xi Jinping (pictured, right) at the centre's "core". Such emphatic language suggests that the case may involve allegations of political misbehaviour, not just of graft. "This is political ruin and fall!" Ms Meng said in a text message to the Associated Press, a news agency.

The hugger-mugger of Mr Meng's arrest seemed a snub to an organisation that is supposed to respect and promote due process—and to the delegates whom China had persuaded to elect its man as Interpol's president (he was the first Chinese citizen to hold the post). Yet in the context of Mr

Xi's long-running campaign against corruption, Mr Meng's treatment is not peculiar. Interpol's chiefs retain their old government jobs while on secondment to Lyon. As a serving vice-minister of public security, Mr Meng is not immune to proceedings instigated by superiors in his home country.

Since Mr Xi took over as China's leader in 2012 hundreds of thousands of officials have been jailed or otherwise punished, ostensibly for their involvement in graft. In some cases the charges have appeared aimed at neutering political rivals as much as cleaning up the party. Until recently, the usual practice was to detain suspects using a system known as *shuanggui*, an extra-legal form of arrest that allowed party members to be held in secret for months. At the start of this year *shuanggui* was replaced with an alternative investigatory process managed by a new branch of government, the National Supervision Commission (NSC). Mr Meng is the most senior official known to have been detained by this body.

Power unleashed

One reason for the creation of the NSC was supposedly to impose some legal restraint on the party's powers to discipline its own 90m members. Yet the new body has ended up with greater powers than the shadowy system it replaced. The organisation can investigate wrongdoing not just among party members but among all managers working in public service. This triples the number of people at risk of arbitrary detention. The NSC's agents may hold people in places of the party's choosing for up to six months. Investigators do not have to inform relatives or employers, should officials believe that doing so might hinder their inquiries. Nor are they required to allow access to a lawyer.

There are various theories about why ►►

▶ the party initially chose to deal with Mr Meng in the secretive way it did. One is that China's leaders are uninterested in, or possibly ignorant of, how the country's anti-corruption procedures appear to foreigners, including those who run Interpol and other international organisations that China would like its citizens to lead. Officials may be wagering that, once clearer evidence is presented of Mr Meng's alleged corruption, their decision to detain him so furtively will appear more understandable. Or they may simply reckon that China can continue to cajole countries into supporting its candidates for big international jobs, regardless of how well or badly its government behaves. There has been speculation that China's leaders are unhappy that Mr Meng did not do a better job of persuading Interpol to do China's bidding. They were angered by Interpol's decision in February to cancel a long-standing "red notice" (an alert that someone is wanted by a member country's police) for Dolkun Isa, a prominent campaigner on behalf of China's oppressed Uighur Muslim minority who lives in Germany.

Another theory is that China is acutely aware of what foreigners think and regrets that it had to waste political capital abroad by making Mr Meng disappear. If indeed they felt they had no choice but to act so furtively, that would lend weight to speculation that Mr Meng's disgrace has less to do with common-or-garden corruption and more with some kind of high-stakes political struggle unfolding in Beijing. The report published by Mr Meng's ministry associated him with the "pernicious influence" of Zhou Yongkang, a former security chief who since 2015 has been serving a life sentence for corruption and who is widely believed to have opposed Mr Xi's rise to power. Referring to him and other high-ranking jailed officials, Mr Xi said in 2016 that senior people in the party had engaged in "political conspiracies". Early this summer rumours began to circulate that Mr Xi may be facing resistance from political rivals irked by his decision to revise the constitution in a way that allows him to retain power indefinitely, instead of for a maximum of ten years.

None of these interpretations reflects well on the party. At best China unwittingly persuaded Interpol's members to elect someone of dubious character, despite criticism from human-rights activists who warned that appointing a policeman from a country with such a weak commitment to the rule of law would be a mistake. At worst China has embarrassed Interpol by allowing the party's toxic political struggles to interfere with the body's management. China's leaders like to argue that the West is intent on slowing their country's rise as a respected global power. The evidence suggests that the party is perfectly capable of doing that all by itself. ■

Press freedom in Hong Kong

The long arm of the party

HONG KONG

For the first time, Hong Kong has forced a resident journalist to leave

"IT IS not like he is getting executed," I wrote a columnist for *Ta Kung Pao*, a leading newspaper in Hong Kong with close links to the Chinese Communist Party. The writer was referring to Victor Mallet, a Hong Kong-based editor of the *Financial Times* whose application to renew his work visa, which expired earlier this month, was rejected by the territory's immigration department. China has a long history of showing the door to adventurous foreign correspondents. But this is the first time that Hong Kong, a semi-autonomous territory, has forced a resident foreign journalist to leave. Mr Mallet has until October 14th to do so.

The pro-Communist press aside, many in Hong Kong as well as elsewhere are worried by what the territory's treatment of Mr Mallet portends. The European Union, Britain and Canada have weighed in on his behalf. America's chamber of commerce in Hong Kong said any effort to curtail press freedom in the territory could damage its business competitiveness. On October 10th, as Carrie Lam, Hong Kong's chief executive, was about to deliver her annual policy address to the Legislative Council, several pro-democracy lawmakers walked out in protest, holding placards saying "Free press" and "No persecution".

Mr Mallet's sin, it is assumed, was to host a talk in August at the Hong Kong Foreign Correspondents' Club (FCC), of which he is a vice-president and was then its acting leader. The speaker was Andy Chan, the leader of the Hong Kong National Party, a pro-independence group which the gov-

ernment has since banned for threatening "national security", among other vague accusations. China's foreign ministry, which has a branch in Hong Kong, had made it clear that it saw any public gathering involving a separatist speaker as a provocation. It had asked the club to cancel the event. The club had refused, arguing that to do so would violate the principle of free speech. Local laws do not explicitly ban public discussion of independence.

Ms Lam has dismissed as "pure speculation" any attempt to draw a link between Mr Mallet's ejection and his hosting of Mr Chan at the FCC. But the government refuses to explain its decision (the *Financial Times* is appealing against it). Mr Chan says he is in no doubt. Mr Mallet was "guilty by association", he says (stressing that he can only speak in "a personal capacity", given that his party has been outlawed). Mr Chan worries that journalists in Hong Kong may increasingly censor themselves by avoiding sensitive topics.

The "one country, two systems" arrangement that China promised Hong Kong when it took over the territory in 1997 does not cover foreign affairs and defence. It is likely that the government in Beijing put pressure on Ms Lam's government in Mr Mallet's case. Almost certainly at the central government's request, Hong Kong's immigration officers sometimes deny entry to people disliked by the Communist Party—among them a British human-rights activist, Benedict Rogers, who was turned away last year.

Instead of a new work visa, Mr Mallet has been given a visitor's permit valid for just seven days. After his departure, however, the journalist still has unfinished business in Hong Kong. On October 23rd Mr Mallet is due to moderate panels at a conference organised by his newspaper. It is unclear whether he will be allowed back into the territory to appear at the event. Ms Lam may regret having promised to attend as a keynote speaker. ■



Officials want to muzzle them

Chaguan | Tremble and obey

Why stressed-out Chinese fall for melodrama about life in the imperial court



A BIT surprisingly, one of the best things about the “Story of Yanxi Palace”, a television drama about an 18th-century emperor that has broken Chinese viewing records this year, is watching concubines being rude to eunuchs. Even less predictably, the particular rudeness—combining scorn, resentment and a dash of fear—offers insights into how Chinese people cope with life in today’s ruthless and unequal society. An early scene shows the Qianlong emperor’s chief eunuch, a tubby, squeaky dimwit, bustling into a silk-draped waiting-room with an order for the harem. Return to your quarters, he announces, the emperor is working late. “What? His majesty is sleeping alone again?” grumbles Noble Consort Gao, a boo-hiss villain. “Let’s go,” she tells her fellow concubines, stalking past the eunuch without a glance. “What else is there to wait for?”

“Yanxi Palace” is a gorgeously costumed fantasy, filled with poisonings, betrayals and young women competing for the Forbidden City’s great prize: being bedded by the emperor. “Join the army, you might as well become a general,” as one ambitious recruit to the harem chirps. The show is driven by female characters, including a kind but sickly empress, murderous concubines and—at the heart of the 70-episode epic—Wei Yingluo, a quick-witted, justice-seeking maid, who rises to become Qianlong’s beloved consort. The formula is wildly popular, drawing 700m live-streaming views on the drama’s best single day, in August.

Yet that night-time scene in the harem reflects some bleak realities of court life. The eunuch is ridiculous, and obsequious to high-ranking concubines. But he is also terrifying. For the concubines live only to please his master, the emperor, an absolute ruler in whose name the guilty and innocent alike are shown being jailed, executed or exiled without hope of appeal. The Forbidden City is a crimson-walled tyranny, filled with spies. Noble Consort Gao’s drawling insolence in the face of rejection is, in the end, bravado. She is privileged, cosseted and ready to hurt those below her in the pecking order. But in this system she has no individual rights. And she does not challenge its rules.

Many Chinese might mock attempts to extract political lessons from “Yanxi Palace” or other recent Qing dramas drawing huge audiences, such as “Ruyi’s Royal Love in the Palace”. Yet Chaguan quizzed visitors to a museum in the city of Changchun,

housed in a palace built by Japanese occupiers when they installed the last Qing emperor as the puppet ruler of north-east China from 1932-45. Such dramas just use history as a backdrop, scoffed two students, Taylor Wu and Linda Zhang. They are really stories about “modern life”, they added, whether that means love stories or concubines seeking promotions.

The students are on to something. Watching bored, paranoid concubines waiting for the emperor’s summons, the penny drops: this is a workplace drama, and these employees are failing a performance review. Young maids in a palace dormitory, torn between small acts of kindness and infighting, could be teenage workers at an electronics plant. Even bejewelled dowagers sound like scolding parents from 2018, with one calling a daughter “gut-less” for failing to ask Qianlong for a promotion.

Imperial dramas have reflected the politics of their time since they first hit Chinese TV screens in the 1980s. Film-makers study what Communist Party ideologues call the “main melody”, a musical term they have borrowed to describe the core political ideas upon which creative sorts are encouraged to riff. “TV Drama in China”, a study published by the Hong Kong University Press, elegantly catalogues permitted themes. Historical dramas from the 1980s stressed the weakness of the last Qing rulers. In the authoritarian aftermath of the Tiananmen democracy protests, such shows praised 18th-century emperors as stern patriots whose ruthlessness supposedly preserved national unity. “Yongzheng Dynasty”, a drama from 1999, recast the unpopular Yongzheng emperor as a flinty corruption-fighter. That reminded contemporary viewers of Zhu Rongji, a crusty reformer who was prime minister at the time, Ying Zhu of the City University of New York has noted. By 2007 viewers were glued to “The Great Ming Dynasty 1566”, a cynical drama about rampant corruption.

As years passed market forces joined Communist propaganda chiefs as a second boss. Early shows were dominated by male characters and mostly watched by men. Today’s TV drama audience is 70-80% female and mainly from smaller cities, says Lei Ming of ABD Entertainment, an audience-analysis firm. Viewers typically watch on smartphones, he adds. Their favourite part about the show is talking it over afterwards with friends.

The leading man in “Yanxi Palace”, Qianlong, is something of a cipher: a stern autocrat who finds his harem a chore. Chinese pundits have debated whether the show is a feminist tale about strong women, or a retrograde saga about women who survive by obeying and pleasing bossy men. It is both. It is a reflection of the country today, a chauvinist place full of strong women.

Just trying to make a living

In a fast-rising China, life is hard and filled with obstacles and anxiety, says Wang Xiaohui, chief content officer at iQiyi, the Netflix-like entertainment company behind “Yanxi Palace”. Mr Wang describes today’s main melody. The masses (and the party) like stories in which subordinates are loyal, kindness is rewarded and wickedness punished, and in which young people who work hard can succeed. Mr Wang hails the women in his drama for an “independent spirit” that resonates with viewers. Outsiders may note that such spirits do not always seek to reform or change a society. Getting ahead can be enough.

A recurring theme of “Yanxi Palace” is that the Forbidden City is a place of harsh rules, but that rules keep chaos at bay. Such obedient resignation suits China’s modern rulers well. With 15bn cumulative downloads, this will not be the last of its kind. ■

The
Economist

**SPECIAL
REPORT:**

The world economy

→ October 13th 2018

3 A downturn is coming

5 Danger signs

7 Monetary policy

9 New responses

11 The impact of politics

The next recession



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¹ First U.S. Corporate Sustainability Bond (see Company's press release dated May 16, 2016). First Global Yen Sustainability Bond in Japan (see Company's press release dated March 17, 2017).

² \$500,000,000 senior note offering, as per prospectus supplement dated May 11, 2016. ¥85,000,000,000 (\$765,197,030) senior note offering, as per prospectus supplement dated March 10, 2017. Yen to dollar exchange rate as of August 27, 2018.



The next recession

Another economic downturn is just a matter of time. It will be harder to fight than the last one, says Ryan Avent

JUST SOUTH of Indiana's border with Michigan lies the city of Elkhart, with a population of just over 50,000. Apart from a small, shop-lined high street near where one river, the Elkhart, flows into another, the St Joseph, the city is mostly shapeless, tree-lined and suburban. Scattered around the outskirts are the factories of several of America's largest producers of recreational vehicles (RVs). Rows of the finished products rest outside the giant sheds in which they are made.

Modern RVs are impressive, leather-upholstered land yachts fitted with flat-screen televisions and gas fireplaces, the perfect vessels in which to navigate the American continent. The RV business is one of the economy's most strongly cyclical. Sales of big-ticket items like homes and cars inevitably rise and fall with the business cycle, but RVs are especially susceptible to such swings. It is only once cars and homes have been upgraded that consumers consider splashing out on rolling living quarters. And when financial fear stalks the land, RV-makers have a particularly hard time.

In Elkhart, more than a quarter of people in employment work on RVs. When the global financial crisis in 2007-08 plunged the world economy into its worst downturn since the 1930s, employment in the city's factories fell by nearly half. The unemployment rate almost quintupled, to 20%. Incomes and population dropped. Elkhart was among the first places President Barack Obama visited after his inauguration in 2009: it exemplified the extraordinary economic challenge facing his administration.

But then the city edged away from the brink. By the end of Mr Obama's first term its unemployment rate had fallen by more than half. By the end of his second, as President Donald Trump took office, the rate had more than halved again, and earlier this year it dropped to the extremely low level of 2% as Americans started to splash out on luxuries again. Companies in the area cannot fill the jobs they advertise. The good times are back.

But for how long? One day, the forces that turned the palest, thinnest of green shoots after the financial crisis into the second-longest American economic expansion on record will change direction, igniting a new recession—for which the world is woefully unprepared. When that might happen is hard to say. Studies of American business cycles suggest that the economy is as likely to flip from growth to contraction early in the life of a boom as later on. Indeed, America has no records of an expansion lasting longer than a decade, though many countries do: Australia, Canada and the Netherlands have all enjoyed sustained growth lasting more than 20 years in recent memory. Yet all good things come to an end.

Though there is no settled view on what constitutes a global recession, worldwide slumps are usually marked out by a sharp slowdown in global growth and a decline in real GDP per person. Roughly speaking, there have been four global recessions since 1980: in the early 1980s, the early 1990s, in 2001, and in the crisis of 2007-08. Each was marked by a slowdown in GDP growth, a sharp decline in trade growth, and retrenchment in the financial sector. ▶

▶ According to the Behavioural Finance and Financial Stability project at Harvard University, an average of four countries a year suffered a banking crisis between 1800 and 2016. From 1945 to 1975, when the global financial system was tightly controlled, most years were entirely free of banking crises. Since 1975, however, an average of 13 countries have found themselves in the throes of one each year. Since the 1970s, the deregulation of national banking systems and the lifting of constraints on the global flow of capital ushered in a new era of financial boom and bust. Re-regulation since 2009 has not fundamentally changed this picture. The current value of outstanding cross-border financial claims, at \$30trn (and growing), is below the peak of \$35trn reached in 2008, but well above the 1998 level of \$9trn.

Booms tend not to die of old age, and there are killers aplenty lurking in the shadows. Globally, policy is slowly but surely becoming less supportive of boom conditions. True, America only recently passed a budget-busting tax reform, which promises to swell its deficit and thus to boost American spending. But in most other rich countries government borrowing is flat to falling. Across much of the emerging world, too, deficits are expected to shrink in coming years. China's government is trying to rein in the credit-dependency of its economy, with some success.

Central banks are pitiless executioners of long-lived booms, and monetary policy has shifted. America's Federal Reserve has slowly been raising its benchmark interest rate since late 2015. The Bank of England followed suit in 2017 and is expected to continue to increase interest rates slowly over the next few years. The European Central Bank (ECB) will probably conclude its stimulative bond-buying in December and may begin to raise its benchmark rate in late 2019. Global financial conditions, though still fairly relaxed, have become slightly less so recently. Most central banks have become less concerned about economic weakness and more worried about inflation. If they overdo their reaction, they could slow down the global economy more than intended.

America's Fed, in particular, is treading a difficult path. Over the past few decades economic and financial cycles in the global economy have become more closely connected. Some economists reckon that the link remains loose. Eugenio Cerutti of the IMF, Stijn Claessens of the Bank for International Settlements (BIS) and Andrew Rose of the University of California, Berkeley reckon that global financial factors explain no more than a quarter of the movement of capital across borders. Others disagree. Hélène Rey, of the London Business School, links the global financial cycle to worldwide swings in appetite for risk, which is in turn governed by the stance of American monetary policy. Òscar Jordà and Alan Taylor, of the University of California, Davis and colleagues have found cross-border wobbling in financial variables such as equity prices is at its most synchronised for more than a century.

It might not take much to bring on the next recession

Shifts in America's monetary stance echo around global markets. In response to the financial crisis and the weak recovery that followed, the Fed worked hard to bolster American spending, mainly through quantitative easing (QE), the practice of printing money to buy assets such as government bonds. The effects of this policy were felt in the rest of the world; as Fed purchases depressed the yield on American government bonds, investors sought better returns elsewhere. Money flooded into the emerging world. The dollar-denominated debt of emerging-market firms other than banks roughly quadrupled. Chinese corporations now hold dollar-denominated debt of roughly \$450bn, compared with almost none in 2009.

A more hawkish Fed means trouble for such borrowers. Since 2014 the dollar has risen by nearly 25%, on a trade-weighted basis, buoyed by a stronger American economy and rising interest rates. A dearer dollar makes life difficult for those with local-currency assets and dollar debts. As such borrowers tighten their belts, credit contracts. Trouble in emerging markets like Turkey and Argentina increases the appetite for safe-haven currencies. The resulting appreciation adds to the burden on other emerging markets, threatening to set off a cycle of contagion. The emerging world may avoid a cascading financial crisis for now, but its fast-growing economies, accounting for ever more of global growth, face a painful adjustment that will weigh on advanced economies too.

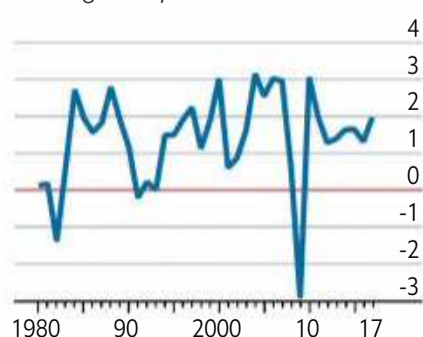
New world disorder

As this special report will explain, the rich world is ill-equipped to manage such stress. Handling a bout of economic weakness used to be simple: the central bank would cut short-term interest rates until conditions improved. But in the aftermath of the global financial crisis rates around the world fell to zero, and the weak recovery that followed kept them pinned there. Even the Fed, which has chalked up the most post-crisis rate increases, will almost certainly enter the next recession with a historically small amount of room to cut rates. In a downturn, central banks are likely to turn almost immediately to other tools used after the 2007-08 crisis, such as QE. But such tools are politically harder to deploy, and their stimulative effects are less certain.

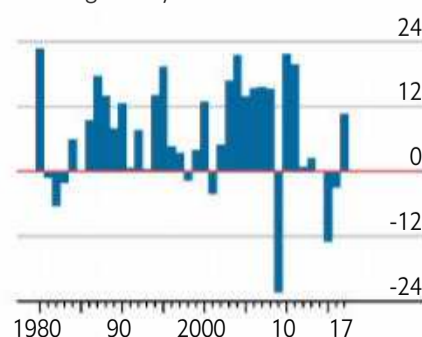
Fiscal stimulus could pick up the slack, but mobilising government budgets to aid the economy will also prove a tall order. Across advanced economies the average government debt load has risen above 100% of GDP, up more than 30 percentage points from 2007. Debt in emerging markets has risen as well, from an average of roughly 35% of GDP to over 50%. Plans for large-scale fiscal stimulus were politically difficult to enact during the financial crisis, ▶

Ripe for another one?

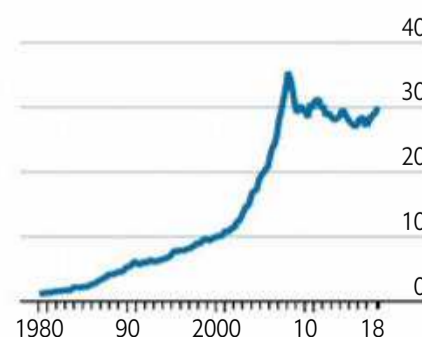
World GDP per person
% change on a year earlier



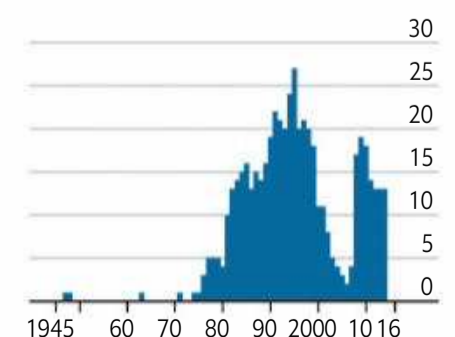
Global merchandise trade
% change on a year earlier



Global cross-border claims
\$trn



Number of banking crises
Worldwide



▶ and will be harder still the next time around. In Europe, any debate about government borrowing threatens to revive the disastrous political showdowns of the euro-area debt crisis.

In the end politics may prove the greatest stumbling block to managing a new global downturn. A decade ago, when the weak link was a disintegrating financial system, co-operation among governments—from the close co-ordination of central-bank action around the world to the establishment of the G20 as a crisis talking-shop—helped prevent a bigger disaster. The world looks very different now. The American economy, which remains the linchpin of the global economic system, is now presided over by Mr Trump. Britain is close to leaving the European Union, possibly in chaotic fashion. The political climate across some of the rest of the EU has turned ugly. Most advanced economies now have viable populist or nationalist parties, waiting to capitalise on the first sign of renewed economic distress. Many emerging markets have regressed as well. Nationalism and strongman tactics are in the ascendant. Power in China is worryingly concentrated in the hands of one man, Xi Jinping. Thanks to Mr Trump's trade war, relations between America and China have become openly hostile.

In 2007 financial markets were primed for a massive crisis, but governments were able to draw heavily on their monetary, fiscal and diplomatic resources to prevent that crisis from destroying the global economy. Today the financial dominoes are not set up quite so precariously, but in many ways the broader economic and political environment is far more forbidding. It might not take much to bring on the next recession. ■

Danger signs

Spotting the black swans

The next crisis could start a long way from New York

TURKEY'S LARGEST city, Istanbul, is intimately linked to the Bosphorus. In the year 324AD, the emperor Constantine established a new capital for the Roman empire on the western side of the strait of water that connects the Black Sea with the Aegean. The location was perfect: easily defensible and strategically invaluable, at the hinge between Europe and Asia.

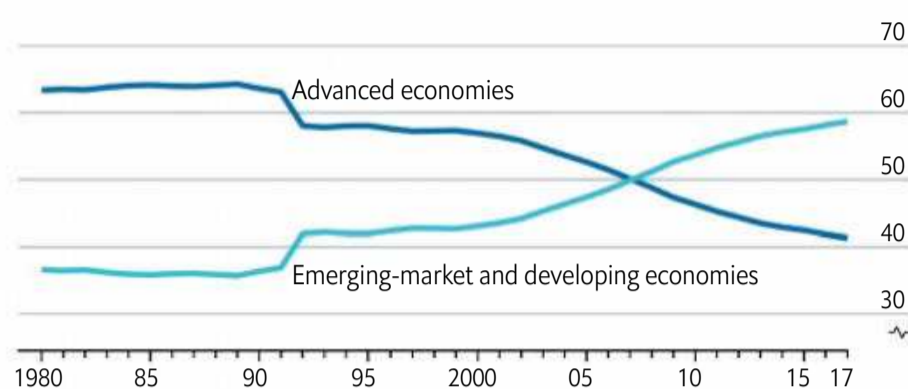
If one Bosphorus is a strategic asset, two are even better, reasoned Suleiman the Magnificent, sultan of the Ottoman empire in the 16th century. So he proposed to dig a canal to Istanbul's west, providing a second sea route across the Eurasian isthmus. His plan did not come to fruition, but it is back on the agenda now. In 2011 Recep Tayyip Erdogan, another Turkish leader with grand visions, announced a \$20bn project called "Kanal Istanbul" to provide a route parallel to the existing strait. It is an example of what Mr Erdogan himself has called "crazy projects": monumental building feats to reflect the greatness of his regime.

No one is sure if the canal will be finished. But the economic tailwinds that made such grandiose plans possible have abated, so Turkey is now facing an economic reckoning which could threaten the canal's completion and is starting to threaten other emerging markets, too. After the global financial crisis, money draining away from stricken advanced economies flooded into emerging markets. Some of them borrowed too enthusiastically and kept an imprudently loose rein on banks and firms.

The recovery of the rich world, and the withdrawal of monetary support, now threatens those overextended developing econo-

Taking over

World GDP at PPP*, % of total



Source: IMF

*Purchasing-power parity

mies. Every struggling emerging market founders in its own way, and Turkey's troubles have been exacerbated by its own particular economic and political woes. But the broad shift in financial conditions that is now squeezing the emerging world will inevitably induce some familiar crises.

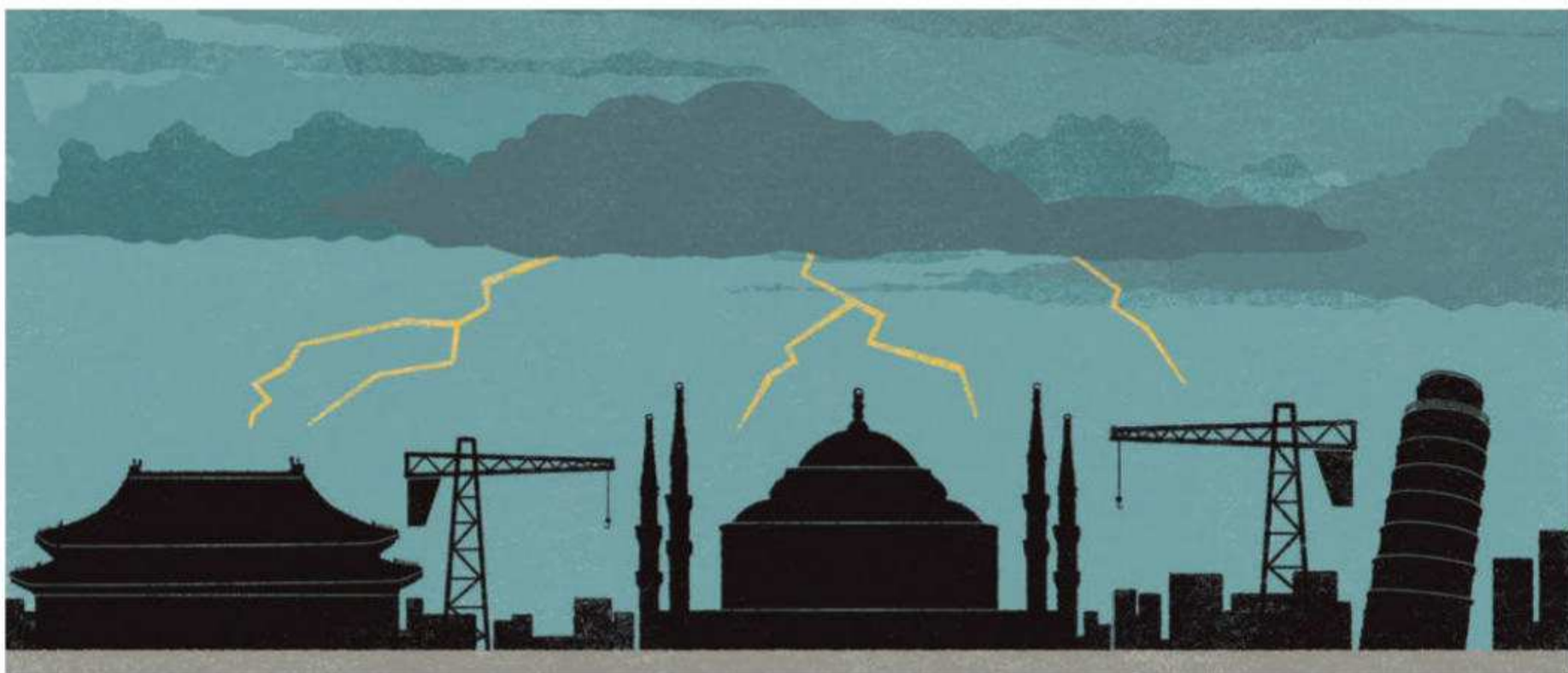
Business cycles are a matter of feedback loops. In good times, people spend and invest more. Asset prices rise, worries about risk recede, and banks open their credit taps. Easier credit underpins spending and investment, and on the cycle goes. Governments try to moderate booms but often overdo or underdo it. Eventually some error flips the cycle from expansion to contraction. Nervous consumers cut back, firms shelve investment plans, asset prices fall and banks curtail credit. Lending which looked sensible one day becomes a danger to the economy the next.

The integration of the global financial system has turned national financial systems into a vast single sea of money that rises and falls with changes in saving and investment around the world. In the 2000s, for example, the international banking system channelled massive savings accumulated by oil exporters and large emerging markets into rich-world property markets. If such shifting tides are mismanaged, they almost invariably cause economic trouble. Today, the tide is on the move again.

It is most easily observed in the emerging world. Developing countries bounced back from the global financial crisis relatively quickly, buoyed by an explosive Chinese recovery. As quantitative easing in advanced economies depressed the yield on rich-world bonds, investors increasingly looked to the emerging world for better returns. The double boost of Chinese demand and rich-world capital threatened to create unmanageable credit booms in some emerging economies, which have long viewed such inflows of capital with a wary eye. Reversals in the past often left the unlucky ones with piles of unaffordable debt.

The recent experience of some developing countries such as Turkey may foreshadow a return of the sort of woes experienced by emerging Asia in the late 1990s. Turkey has been running a large current-account deficit (indicating heavy reliance on capital flows from abroad), has borrowed heavily in dollars and has an alarmingly low level of foreign-exchange reserves. A loss of market confidence could lead to a dramatic depreciation, waves of defaults and painful adjustments in the Turkish economy. Turkey is not big enough to cause global economic trouble all on its own. But should the forces squeezing Turkey drag down a broader swathe of emerging economies, governments around the world could have a serious problem on their hands.

In the past, torrents of money from abroad proved irresistible to governments in the emerging world. Most have since learned to borrow more carefully and in local currency, and to accumulate a war chest of foreign-exchange reserves. Even so, borrowing by ▶



▶ emerging-market firms (not banks) through issuance of dollar-denominated bonds has increased by an average of more than 10% per year since the financial crisis. It has roughly doubled in Brazil and Mexico, tripled in South Africa and Indonesia, and quadrupled in Chile and Argentina, according to a recent analysis published by the Bank for International Settlements (BIS).

Borrowing from abroad has gone hand in hand with large current-account deficits; net flows of foreign money into a country allow it to consume more than it produces. But as the American economy has strengthened and the Fed has tightened, capital flows into America have grown and the dollar has appreciated. The first big round of post-crisis appreciation took place in 2014, in the wake of the “taper tantrum”, as the Fed phased out the stimulative bond-buying it had undertaken in the early 2010s. As a result, emerging-market currencies dropped and growth in trade, borrowing and GDP slowed. Now monetary policy across rich economies is becoming tighter and the rise in the dollar has resumed.

The problem, says Hyun Song Shin, of the BIS, is that dollar borrowing by emerging-market firms effectively expanded the monetary reach of the Federal Reserve. Higher American interest rates and a stronger dollar will place financial pressure on big emerging-market firms, forcing them to cut back on investment and spending. Foreign-exchange reserves held by governments are probably sufficient to prevent financial stress at big corporations from translating into a broader panic; but the closing of the credit taps, and pressure on firms to deleverage, will cause a sharp contraction in much of the emerging world that will be felt in advanced economies, too. For countries which have been running current-account deficits, that means buying less from the rest of the world and selling more. Advanced economies will be affected as the value of their investments abroad declines and their exports shrink.

China is not normal

Just how much all this will dampen growth will depend on what happens in China. Although it shares some features with other emerging markets, it is so vast and so unique that it represents its own sort of threat. The economic collapse of China’s main export markets during the global financial crisis raised the risk of a sharp slowdown, rising unemployment and political instability. Its leaders responded with a massive fiscal stimulus directed primarily at investment, estimated at around 12.5% of GDP and financed mostly

by borrowing, much of it by local governments and large firms. Overall, Chinese debt rocketed after the crisis, from about 175% of GDP in 2009 to more than 300% now. To make matters worse, borrowing has become less efficient over the past decade as more of it has been done in places and by firms with declining growth in productivity. In more recent times the government has tried to rein in, though not stop, the credit boom.

Such an extraordinary rise in debt, and particularly in credit used unproductively, would normally ring alarm bells. But China is not a normal country. Highly indebted emerging economies usually worry about servicing foreign-currency-denominated debt as capital flees the country. But China tightly controls its capital account, and both the government and Chinese banks maintain large asset piles. Moreover, the government has far more control over the economy than in most countries and is determined to avoid the emergence of any kind of destabilising crisis.

Even so, China’s debts are hardly problem-free. Economic growth has decelerated steadily since 2010. Still, it continues at more than 6% per year, which adds about \$1.5trn to the global economy each year (a Russia, give or take). To maintain growth at that clip requires a steady increase both in the economy’s supply capacity and in demand. Increasing capacity has long ceased to mean adding new factories, railways and skyscrapers; instead, it involves the difficult business of technological advancement and reallocation of resources to sectors with higher productivity. Maintaining political support for the reforms needed to make this possible has proved hard, even for a powerful leader like Xi Jinping. On the contrary, recent borrowing props up low-productivity firms and sectors that ought to have shrunk.

And if China were to succeed in boosting the supply side of the economy, demand might become a problem. Culling unproductive businesses would mean less spending and fewer jobs. Households would be obvious candidates for replacing lost demand, but progress on shifting to a more consumption-based growth model has been slow and has relied in part on increasing levels of household debt. Besides, setting monetary policy in such a way as to reduce borrowing by weak firms but encourage household credit growth is tricky. Rising household incomes could help, but China ▶▶

████████████████████

Italy, in particular, is a ticking time bomb

► has had difficulty in achieving this; household incomes as a share of GDP have fallen since 2016.

If China's exchange rate were to weaken sufficiently, the increase in sales to foreigners could help offset weak domestic demand. But that risks enraging America, and encouraging Mr Trump to intensify his trade war. A drop in the yuan would also add to the financial stress on Chinese firms with large dollar-denominated debts. And China exporting its way out of trouble might place an undue burden on the rest of the global economy.

In the past, rich countries could shrug off the sort of adjustments in emerging markets that appear to be looming. But times have changed. China's last real economic dip occurred during the financial crisis, when the entire world was reeling. The last serious growth hiccup before that was after the Tiananmen Square unrest in 1989. At that time Chinese GDP was about 4% of the global total; now it is 19% (measured at purchasing-power parity, or PPP). Over the same period emerging markets' share of world GDP has risen from 36% to 59% at PPP. Those markets could cause a downturn in the global economy all by themselves.

Yet not everything is rosy in the rich world either. Although the euro-area economy enjoyed faster growth in 2017, the boom has since cooled, even as the European Central Bank (ECB) has moved toward monetary tightening. An end to quantitative easing by the ECB, set for the end of 2018, and the prospect of rate increases, probably would not be enough to endanger the euro-area recovery. But an end to asset purchases could make markets react faster to political changes that threaten to reignite the euro crisis.

Italy, in particular, is a ticking time bomb. The election of a populist coalition in March rattled bond markets. With Italian government debt at around €200bn, or 130% of GDP, it would not take much to set off a new crisis, which would be extremely difficult to control. Panic in Italy might radiate out across financial markets, putting a chill on investment and growth worldwide.

America has its own vulnerabilities. The ratio of non-financial corporate debt to GDP has reached an all-time high of more than 73%. A worryingly large share of recent borrowing has come in the form of leveraged loans, an alternative to bonds. The business is reminiscent of the mortgage-backed security market which featured prominently in the global financial crisis. Investor demand for such securities has rocketed in recent years, because payouts vary with interest rates, which have been rising. The size of the market has doubled since 2010, to more than \$1trn, and is now nearly as large as the market for high-yield bonds. Expansion in lending has come at the expense of credit standards. The share of new leveraged loans considered to have weak protections against default is growing; in the first quarter of 2018 it exceeded 80%.

Despite the parallels with pre-crisis mortgage lending, a meltdown in this market is unlikely to generate the same havoc. But an outbreak of defaults could contribute to a rapid contraction in lending to firms and a tightening of credit—sufficient, perhaps, to touch off a new American recession. One of the lessons of the crisis is that panics can be caused by things hidden until it is too late.

One such surprise might be a rise in the cost of oil. Prices have crept up over the past year, from \$50 per barrel to around \$80. Politically generated disruptions to supply in Venezuela and Iran could strain the market further. A number of other black swans may be heading upriver even now. Costly frauds may be hiding within underexamined corporate balance-sheets. Elections could go one way not another. Global pandemics might erupt.

Once credit, spending and optimism have reigned for a time, the interplay of foreseen and unforeseen circumstances may cause them to stop doing so. At that point behaviour which seemed reasonable and responsible will start to look like folly, the “crazy projects” of the world will seem unconscionably reckless, and the world will be in trouble again. ■

Monetary policy

Today's arsenal

Will it work tomorrow?

EARLY IN 2001, while the rest of America was recovering from the holiday season, the Fed's monetary-policy committee convened for a conference call on the state of the economy. Spooked by poor Christmas sales and rising unemployment, it moved boldly, cutting rates by half a percentage point. “I believe that the markets and the leaders of major firms...are at or near a point of psychological crisis,” said the Fed's vice-chairman, William McDonough. “The pessimism about what is likely to happen in the economy is at a point where it can start feeding upon itself.” The economy was not obviously on the brink, and share prices remained exalted. But the Fed wanted to head off a downturn before it had begun.

As it turned out, 50 basis points were not remotely enough to do that. As America sank into recession, then limped through a fragile recovery, the Fed slashed rates from 6.5% to 1%. But at least it had the room to do that. Its rate had barely got back above 5% when, in early 2007, a collapsing housing market forced a return to cutting; in late 2008, as the full extent of the recession was only just becoming clear, rates dropped to near zero, leaving the Fed to combat the worst downturn in generations without its main weapon.

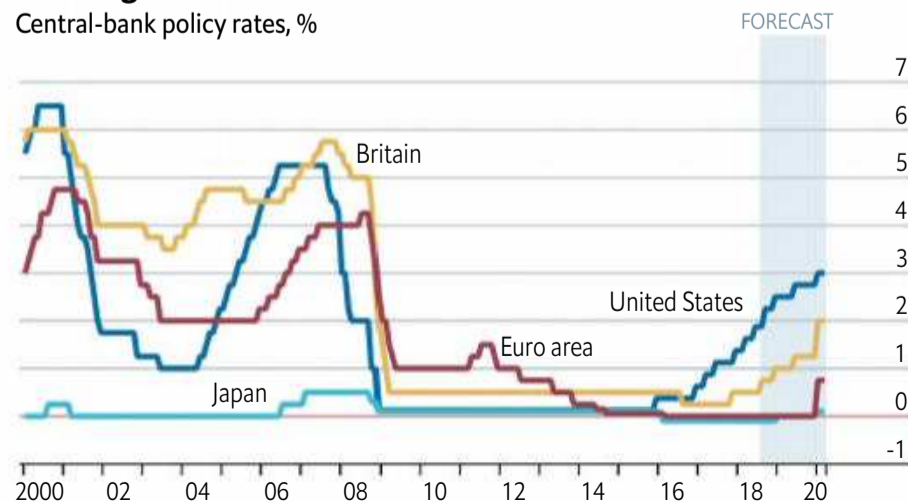
The next recession will probably be more like that of 2001 than the one that started in 2007 in its severity and in the risk it poses to the financial system. But the central bankers who will be tackling it will start with their backs against the wall. Every step taken to restore the economy to health will be less certain to work. That uncertainty will provide room for pessimism to feed on itself and perhaps grow into something unmanageable.

Since the 1980s, advanced economies have relied on central banks to smooth the business cycle by adjusting short-term interest rates. Rate increases affect economic activity directly, by discouraging borrowing and encouraging saving, and indirectly, by signalling to markets that the central bank intends to slow growth. Rate cuts work in the opposite way. But once rates get close to zero, it is as if the accelerator of an automobile were pushed to the floor.

Much of the world is likely to have to fight the next downturn with its armoury severely depleted. Markets reckon that American short-term rates will remain below 3% until the end of 2020. Rates ►

The long climb

Central-bank policy rates, %



Sources: Haver Analytics; Thomson Reuters; Bloomberg

▶ in Britain are expected to be no higher than 1.5% at that point, and to be barely positive in the euro area and Japan. Barring a dramatic change in circumstances, the main tool of monetary policy over the past few decades will be unavailable. Central banks will almost immediately have to rely on the much more contentious and less certain instrument of quantitative easing (QE).

Such money-funded asset purchases were used widely during and after the 2007-08 crisis; they continue in Europe and Japan. QE is thought to work in several different ways. Banks hold bonds as a safe but better-yielding alternative to cash. When central banks buy bonds, it is assumed that banks, rather than keep the cash, will buy better-yielding replacements. Those purchases should raise asset prices and reduce borrowing costs across the economy, making it more attractive to borrow and invest. By lowering rates on long-term government bonds, QE can also loosen borrowing constraints on the government and perhaps allow it to ease fiscal policy. And QE might encourage the economy's "animal spirits", persuading people that the central bank is committed to growth.

Yet the effectiveness of asset purchases depends on whether markets believe they are permanent or will be unwound in due course. The Fed has been allowing its balance-sheet to shrink, declining to redeploy all of the cash it is paid when bonds mature. It is probably undermining the effectiveness of future QE by indicating that most purchases are likely to be temporary.

QE will also be undermined by the low level of long-term rates, which is likely to continue. The smaller the difference between the yield on the new money, credited to bank reserves, that the central bank uses to purchase bonds and that on the bonds being purchased, the less of an incentive banks will have to hunt for other



Empirical assessments of QE programmes convey mixed messages about their impact

it might face a court challenge.

The ECB faces its own constraints. If European QE ends in December, its balance-sheet will have grown from around €1.5trn (\$1.8trn) before the crisis to roughly €5trn. In March 2015 the ECB intended to buy no more than 25% of an issuer's outstanding bonds, to avoid becoming the primary creditor to euro-area governments. The threshold was raised to 33%. Germany's shrinking debt (a result of its persistent budget surpluses) posed a particular problem; earlier this year the ECB began buying bonds issued by state-owned German banks in order to keep up the German share of purchases. Should a new downturn require the resumption of purchases, they will quickly threaten to make the ECB the main creditor of several member states and important financial institutions, or else lead to a wildly disproportionate share of purchases flowing to the most troubled states, or both. At some point the ECB may feel that it is assuming too much political risk and may ask for more explicit support from member states. That could make it cautious to restart QE or use a new programme.

Much of this is a matter of theory, however. Empirical assessments of QE programmes convey mixed messages about their impact, and are hamstrung by the difficulty of isolating the effect of one policy among many on complex economies buffeted by many forces. What is more, central banks are often less than clear on their precise intentions when beginning QE. Programmes and justifications evolve over time.

Perhaps most important, QE remains politically controversial. When it was first introduced in America, Republicans accused the Fed of courting hyperinflation. Germany sees the ECB's asset-purchase programmes as debt monetisation: a backdoor bail-out of governments that lack the moral courage to balance their budgets. The rub for central banks is that what makes asset purchases most effective—a promise not to reverse them, paired with a commitment to reflate a sagging economy—is also most likely to rile politicians worried about fiscal moral hazard and runaway inflation.

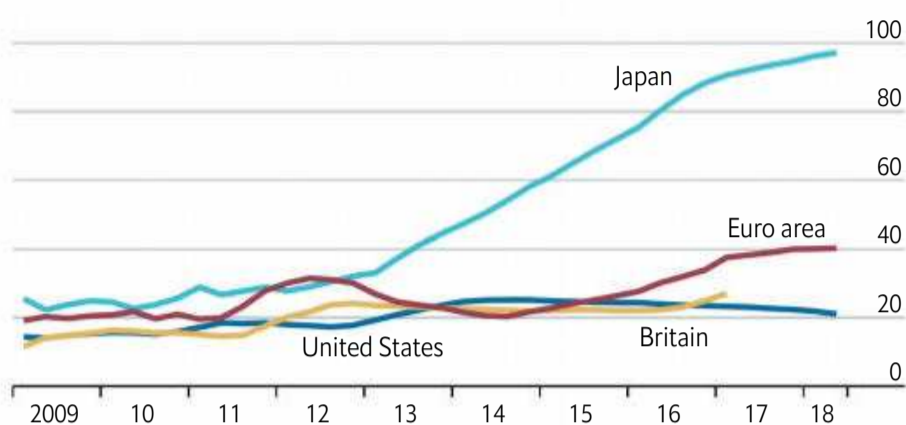
Monetary policy works, in large part, by increasing borrowing and spending, but success depends on there being willing and able borrowers, who in times of economic trouble may be in short supply. Corporate debt has been soaring in recent years, which suggests firms will not be particularly eager to take further advantage of easier monetary policy. Firms with large cash piles could help by spending them down, but seem to have been keener to use their lucre for dividends and share buy-backs than for new investment.

Households could help, but rich-world consumers continue to carry large debt loads. Recent work by Atif Mian of Princeton University and others examines 30 countries in 1960-2012 and concludes that a rise in the ratio of household debt to GDP is associated with lower GDP growth and higher subsequent unemployment. Households might be induced to borrow more by a rise in expected income growth, but such expectations would be more likely to decline during a downturn.

That leaves the government, which picked up much of the slack during the global financial crisis. The price was a significantly higher level of public debt. Most large emerging economies must worry that large-scale borrowing could put market confidence in ▶▶

Look east

Central-bank assets as % of GDP



Source: Haver Analytics

► their solvency at risk, as Brazil has found for much of the past few years. China is in a different situation. Its tight control over its financial system gives it more freedom to borrow cheaply, and its central-government debt is relatively modest. But its public purse might have to assume responsibility for bad corporate and local-government debts, so tacking on a fiscal stimulus large enough to buoy the global economy could look too risky.

Rich countries which borrow in their own currencies have more capacity to support their economies—if politics allows. A loss of confidence in the creditworthiness of the American government is unlikely, but if the economy were to enter the next recession with a deficit of 5% of GDP and debt in excess of 100% of GDP, a large stimulus might be politically toxic. In Europe, restrictions on government borrowing adopted in the wake of the euro-area crisis complicate new stimulus.

As the next downturn approaches, the initial response will be to hope for it to blow over. If it persists, central banks will no doubt start to deploy QE, and some anxious governments might turn to fiscal stimulus. If recovery proves elusive, politicians will feel compelled to turn to more dramatic measures. ■

New policy responses**Try this****If the usual weapons fail**

FROM THE robots that help care for an ageing population to holographic pop stars, the future always arrives early in Japan. Economic policy is no exception. When the massive Japanese financial bubble of the 1980s imploded, the Bank of Japan (BOJ) struggled to respond. In 1995 short-term interest rates fell to near zero, presenting a headache the rest of the rich world would not confront until 13 years later.

In battling its “lost decade”, the BOJ tested many of the policies, such as QE, that would enter the toolkit of other central banks during the financial crisis. Yet Japan was seen as an example of central-bank incompetence, until smug Western central banks discovered after 2008 that getting an economy to perk up when interest rates were near zero was harder than it looked.

Since the election of Shinzo Abe in 2012, Japan has reprised its pioneering role. Mr Abe replaced the head of the central bank and

promised to reflate the economy. The BOJ supercharged its asset purchases; its balance-sheet grew from about 40% of GDP in 2012 to 100% now. It bought not just government bonds but corporate debt, shares in equity exchange-traded funds and in property investment trusts. It announced a yield target of 0% on ten-year government bonds, in effect extending the rate control central banks have long exercised over short-term rates to very long maturities. Japan's efforts offer just a sample of the unconventional tools available to governments when rate cuts and QE disappoint. When the next recession strikes, Japan-like interventions might mark only the first foray into an uncharted policy landscape.

Economists recognise the challenge that lies ahead. Since early in the recovery it has been clear that rates would probably be low, and debt loads high, when the next downturn arrives. The energetic discussion this knowledge provoked has ensured that there is a rich menu of options for policymakers to draw upon when a new slump arrives. It is not clear how eagerly they will reach for them. Politicians and central bankers have been remarkably complacent in preparing to combat a recession in a low-rate world.

Proposals fall into a few different categories. Many economists reckon it is important to try to salvage central banks' traditional role in stabilisation by adjusting monetary-policy targets. The problem is the zero lower bound on nominal interest rates. The economy responds to the real rate of interest, which is the nominal rate (the one observed in the market) adjusted for inflation. For example, if the nominal rate is 4% and inflation is expected to be 3%, the real rate is roughly 1%. The higher inflation is, the less likely economies are to hit the zero lower bound, because a zero nominal rate corresponds to a lower real rate.

In the 1980s and 1990s, most economists concluded that a 2% rate of inflation struck the right balance between containing prices rises and avoiding the zero lower bound. Yet from the 1980s, the real rate of interest needed to keep economies from falling into a slump fell ever lower. According to work by Kathryn Holston, Thomas Laubach and John Williams, of the Federal Reserve, this “equilibrium real rate” has fallen from about 3% in America and Europe to below 1%. The cushion that 2% inflation provided between zero and the nominal rate thus proved to be too small.

There are a number of ways to fix this problem. One would be simply to raise the rate of inflation targeted by central banks. Some economists have mooted this as a possibility. Olivier Blanchard did so in 2010, as chief economist of the IMF. Laurence Ball, of Johns Hopkins University, has also advocated for a 4% inflation target. With a higher background level of inflation, nominal interest rates would be higher on average and the zero lower bound would bind correspondingly less often. On the other hand, firms and households would have to deal with a higher rate of inflation all the time. Where central banks have a strict price-stability mandate, raising the target might require a change in the law.

An alternative would be to target a trend-level of inflation rather than a rate. Should inflation fall below target during a slump, a level-targeting central bank would promise to allow faster-than-normal, “catch up” inflation in the future, in order to return the economy to trend. The expectation of that faster growth in future should boost animal spirits and help drag the economy out of a slump. The downside to a level target occurs when inflation accidentally rises too high. Central banks would in such cases need to deflate the economy back to the trend level, which would mean inducing a painful slump. To avoid that necessity, Ben Bernanke, now a fellow at the Brookings Institution, proposed in 2017 that the Fed should temporarily adopt a level target when the economy runs into the zero lower bound on interest rates. Then, the Fed could promise to return the price level to its pre-recession trend, making up for the shortfall induced by the recession, at which point it would revert to targeting an inflation rate. ►

Others reckon that inflation is the wrong target altogether. Monetary economists have long used nominal GDP (NGDP), or simply the total money value of all income or spending, as a proxy for aggregate demand. There are advantages to targeting NGDP instead of inflation. Inflation-targeting central bankers must try to guess whether an acceleration in spending will lead to an acceptable rise in real output or an unacceptable increase in inflation. A central bank targeting NGDP can remain agnostic on such questions. Further, for firms and households considering investment decisions or grappling with large debts, stable growth in incomes matters more than stable growth in prices. During the Great Recession, NGDP fell faster and more sharply than inflation. Though prices were relatively stable, households found themselves forced to pay bills with incomes much smaller than they had anticipated.

There is no time like the present to adopt a monetary target better suited to a world of low interest rates. Yet should governments drag their feet today, a change in target during a downturn could itself boost demand, by proving policymakers' desire to revive the economy. In 2011 Christina Romer, of the University of California, Berkeley, argued that a switch to NGDP targeting could jolt expectations in a positive way, much as Franklin Roosevelt's decision to abandon the gold standard did in 1933. She seems to have persuaded Mr Abe, whose pledge to raise incomes was a centrepiece of his economic reform package. But conservative central banks might be loth to change targets without political support.

Moving targets

While the Fed could argue that such a target fits within its dual mandate to promote both price stability and maximum employment, the ECB, charged with keeping prices stable above all else, has less freedom. Governments might set other targets of their own. Mr Blanchard and Adam Posen, of the Peterson Institute for International Economics, proposed in 2015 that Japan consider adopting an official incomes policy. The government could direct firms to raise wages by 5-10% a year. The resulting sharp rise in wages (and prices) could free the economy from its zero-rate trap, though firms may respond by curtailing recruitment.

Regardless of the official target, central banks could improve the potency of their asset purchases. They could condition QE on yields on long-term bonds (as the BOJ has done) or on other economic variables, like the unemployment rate. Such promises work by signalling a commitment to keep policy accommodative, even if inflation rises outside the central bank's normal comfort zone. Central banks' normal hostility to inflation can undercut efforts to boost a slumping economy, because firms and households fear that stimulus will be removed at the first sign of rapid growth. When interest rates fall to zero, central banks must therefore "credibly promise to be irresponsible", in the words of

The fiscal costs of borrowing during slumps might be significantly less than previously thought

Paul Krugman, an economist.

Of course, monetary policy need not carry the burden of recession-fighting alone. Prior to the financial crisis, mainstream macroeconomists were sceptical about the need for government borrowing to lift an economy out of slumps. It was assumed central banks could do the job, and fiscal stimulus would often come too late, too inefficiently and at too high a cost to government debt burdens.

The crisis upended this thinking. Whereas many analyses of government spending prior to the crisis concluded that \$1 in government spending contributed less than \$1 to GDP (or had a multiplier of less than one), estimates of the effect of fiscal stimulus and austerity during and after the crisis routinely found multipliers in excess of one: a dollar spent (or cut) had a disproportionately large effect on output. Most dramatically, an IMF analysis in 2013 by Mr Blanchard and Daniel Leigh estimated that fiscal consolidations after the crisis were associated with multipliers substantially larger than one, and thus placed a serious drag on growth.

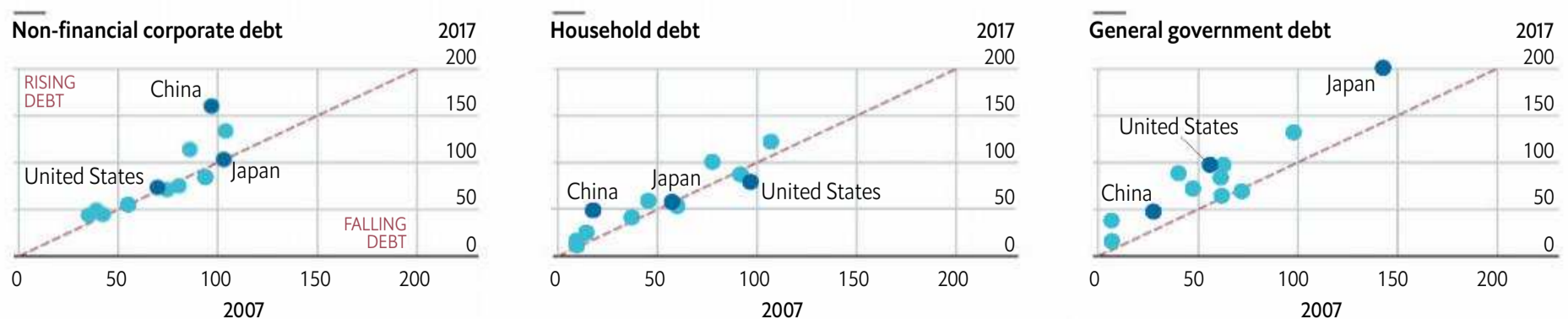
The upshot of this work is, first, that fiscal stimulus is an important tool for fighting recessions. And, second, the fiscal costs of borrowing during slumps might be significantly less than previously thought. In 2012 Lawrence Summers of Harvard University, and Brad DeLong of the University of California, Berkeley, argued that, if prolonged unemployment threatens to reduce an economy's long-run growth potential, then fiscal stimulus at the zero lower bound might well pay for itself. More recent work by Alan Auerbach and Yuriy Gorodnichenko, also of Berkeley, suggests that government borrowing during periods of economic weakness does not tend to raise long-run indebtedness or borrowing costs, even for countries with large existing debt burdens.

That still leaves the question of how to use fiscal stimulus. Given a prolonged slump, concerns about the timeliness of government spending become less pressing. Indeed, Mr Summers has argued since the crisis that near-zero interest rates may represent a new normal, requiring sustained fiscal stimulus, including support for investments in infrastructure and other public goods.

In a new paper summarising a broad set of analyses of stimulus programmes Jason Furman, a former economic adviser to President Barack Obama now at Harvard University, identified several key lessons from the crisis. While discretionary stimulus programmes—like the large, one-off legislative packages enacted in 2009—are economically effective, political systems seem to lose their appetite for such programmes rather quickly. A more sustainable approach then, would lean more heavily on automatic stabilisers: programmes which mechanically add to spending and

Spot the difference

G20, selected countries, % of GDP, 2007 v 2017



Source: Bank for International Settlements

► reduce taxes when economic trouble strikes, without the intervention of a parliament. Large social safety nets already provide some automatic support during downturns: deficits grow as tax revenues decline and payments for unemployment benefits and other emergency outlays increase. This natural stabilisation is one significant reason that the post-crisis downturn was less severe than the Depression. More such features could be added, however. Taxes on labour could be linked automatically to the level of unemployment. In more federal systems, like America's, central-government support for constrained local governments could also rise automatically as local economic conditions deteriorate.

Don't be so negative

There is always the possibility of greater radicalism. Milton Friedman, a Nobel-prizewinning economist, argued that printing money could never fail to boost the economy. If necessary, the central bank could simply shower fresh banknotes on the economy as (he joked) from a helicopter. While a large tax cut funded by QE would accomplish something similar, governments could authorise central banks to manage cash handouts themselves.

This could be feasible were individuals able to bank directly with the central bank—a privilege currently reserved for banks. In a recent essay Morgan Ricks of Vanderbilt University and colleagues propose such a reform in order to improve consumer banking and financial stability. The accounts could also improve monetary policy transmission, they argue. In normal times, interest-rate changes would apply directly to the public's deposits at the central bank, rather than through the banking system. When rates fall to zero, the central bank could use the accounts to deliver newly created money to the public.

Central-bank accounts, and central-bank money, might also enable central bankers to cut rates deep into negative territory. Though some central banks experimented with sub-zero rates over the past decade, few ventured far into negative territory. So long as holding cash (which has a nominal yield of zero) remains an option, negative rates can only be used sparingly, lest depositors take their money and run. Indeed, an analysis of negative rates post-crisis by Gauti Eggertsson of Brown University and colleagues found that banks generally do not reduce the rate paid on deposits below zero, presumably because they fear cash withdrawals. A radical monetary reform which replaced cash with electronic money could solve this. But sucking money from bank accounts might have unintended consequences and would be unpopular.

Roger Farmer of the University of Warwick reckons that animal spirits could be most effectively managed through stabilisation of asset prices, including stock indexes (like the S&P 500). Central banks could undertake this in places where they are authorised to buy equities or equity funds. An alternative would be to establish a sovereign wealth fund with the resources to buy and sell securities in order to stabilise wobbly markets: to unload shares when investors turn exuberant and buy in times of despair.

Recessions occur where there is too little spending to keep an economy's resources from falling idle. Economists have spent the past decade thinking up ways to boost spending and escape recession when interest rates are at zero, as they almost certainly will be during the next global slump. But these proposals, while promising, are largely untested. Those which have been tried, as in the experiments in Mr Abe's Japan, have delivered mixed results. Given uncertainty about how and whether experimental policies work, an effective global response to the next downturn will need to be bold, sustained and co-operative. It will hinge, in other words, on what political decisions are made. But if the menu of recession-fighting options is longer than ever, politicians have rarely seemed less eager to co-operate, across party lines or borders, to produce good economic policy. ■



The impact of politics

Next time will be different

In fighting the next recession, politics will be crucial

IN THE DARK days of the Great Depression, the balance of economic terror was measured out in movements of gold from one country to another. Physically, though, the gold more or less stayed put. Most central banks kept their gold in the vaults of the Bank of England. Flows were accomplished by placing gold bars on a trolley and wheeling them from one pile to another a few feet away. Told that the economic cataclysm was the product of too much gold on one side of the vault rather than another, Britain's ambassador to Germany sighed: "This depression is the stupidest and most gratuitous in history."

Once again, the world is at risk of stumbling into an unnecessarily painful economic mess. If the next global slump takes a turn towards the catastrophic, it will not be because of a dearth of ideas for how to pry an economy out of a rut. Rather it will be because politicians given a long list of ways to pump money into an economy badly in need of it proved unwilling or unable to choose any. Sadly, such an outcome is all too real a possibility.

Even so, the resulting slump might not prove an utter disaster. Struggling economies might accept their fate with equanimity, much as Japan did in the two decades after its bubble burst. But it is far too easy to imagine how a misfiring global economy could place unbearable pressure on the world's strained geopolitical sinews. There are many reasons for concern.

The biggest is the simple fact of the financial crisis, looming so recently in the past. Crises are politically toxic. As Messrs Mian and Sufi and Francesco Trebbi of the University of British Columbia noted in 2014, political polarisation and factionalisation al-

▶ most inevitably follow crises. Voters are more attracted to ideological extremes, and political coalitions grow weaker. The world is awash with supporting evidence. In some places radical parties have found their way into government, as in Greece, where Syriza is now the largest party, or Italy, where a coalition of the populist Five Star Movement and the nationalist Lega is in power. Poland's Law and Justice party has pushed the country in an ever more illiberal direction since it won a majority in 2015. In many other countries establishment parties have become more radical in response to changing public opinion or to fend off challenges from the fringes. In America and Britain, venerable conservative parties are undercutting the stabilising institutions they once championed.

Weak governments will often struggle to enact the policies needed to respond successfully to a slump in a zero-lower-bound world. Many radical and populist governments seem to lack the deep commitment to long-standing institutions that helped hold together the world economy during the crisis. Then, trust and sacrifice prevented a destructive economic nationalism. Even though individual countries could have benefited temporarily from narrowly self-interested policies, they decided to stand together, avoiding a cascading protectionism that would have hurt everyone. G20 countries agreed in 2009 that all those who could afford it should borrow and spend, which benefited everyone. They promised not to throw up tariff barriers as governments did during the 1930s, and their commitment largely held. Now, though, even before a new slump hits, geopolitical amity is eroding.

Lessons from the 1930s

The unprepared state of most economies means that co-operation is more important than ever, but also more tenuous. As Brad Setser of the Council on Foreign Relations argues, an economy stuck without recourse to its most powerful monetary tools has two options, with different implications for the rest of the world. It can use fiscal stimulus to increase spending, even though some of the benefits will inevitably flow across borders as people buy foreign goods and services. Or it can depreciate its currency and siphon off expenditure by foreign economies. Among the greatest risks posed by a new recession is that governments may engage in a zero-sum war for spending. Unable to overcome the technical and political hurdles to creating more money at home, they might opt to suck in money from abroad. That fear goes back to the dark days of the 1930s when most advanced economies adhered to the gold standard. It gave them very little room for manoeuvre, so they were unable to use expansionary fiscal and monetary policy to reverse a downturn.

The modern world owes the relative absence of deep depressions to the fact that fiat currencies, unconstrained by gold, allow governments to stimulate economies in times of trouble. But when interest rates fall to near zero and, at the same time, governments find it hard to borrow, economies begin to look similar to those of the gold-standard era.

It is easy to imagine a downturn causing tensions over exchange rates. After the financial crisis China pegged its currency to the dollar, preventing the yuan from appreciating by buying massive amounts of dollar-denominated securities. As a result, Americans spent hundreds of billions of dollars more on Chinese goods each year than Chinese households spent on American goods: a critical drain on American demand at a time when growth remained weak and unemployment high.

China has since moved to managing the yuan

The greatest threats to the global economy today are political

against a basket of currencies rather than just the dollar, and its current-account surplus has shrunk to almost nothing. Yet the Trump administration continues to rail against Chinese surpluses and currency manipulation, and has launched an escalating trade war. An economic slowdown in China combined with American monetary tightening could prove explosive. The yuan would drop; indeed, the dollar has risen by 10% against the yuan since April.

As credit conditions around the world tighten, most emerging markets will face pressure to reduce their current-account deficits. They will accomplish this, in large part, by depreciating their currencies against those of advanced economies and the dollar in particular. America's current-account deficit tumbled after the global financial crisis but has been on the rise again since 2014. Fed tightening and the larger budget deficits created by Mr Trump's tax cuts practically guarantee that it will continue to grow, meaning that America will export demand to the rest of the world.

That includes Europe. The EU's current account, which was more or less balanced as recently as 2012, has moved sharply into surplus, thanks to a protracted downturn that depressed European wage growth, monetary easing by the ECB and continued fiscal austerity. The monetary and fiscal restraints binding the euro area are the closest modern analogue to the gold standard; if and when a new downturn strikes, Europe may well face the most explicit choice between depression and heavy reliance on foreign demand.

During the global financial crisis, many economists worried that this economic calamity might have geopolitical consequences like those of the Great Depression. It did not. Yet global politics have changed. The country on which the burden of depreciations will fall most heavily is run by a man who hates globalisation. The greatest threats to the global economy today are political.

When the next downturn comes, politics could well get in the way of a sensible response. China's brittle government could prove unequal to the task of managing a slowdown. Saving the economy

might force Beijing to choose between doubling down on debt-fuelled growth and shifting the burden of a downturn onto foreigners, through export-boosting currency depreciation. The euro area remains vulnerable to a new outbreak of its debt crisis. If Italy were to fall out of the euro area, the ensuing financial panic could dwarf the global financial crisis, and the EU could collapse. America, pushed once more into the role of global consumer of first and last resort, might acquiesce to its president's desire to dismantle the integrated global economy, ushering in a much more dangerous era of economic nationalism and dealing a huge blow to incomes around the world.

None of these things must happen. None are inevitable consequences of slightly lower growth in global spending. But the world spent the better part of a century learning to tame business cycles and respond to them in ways that minimised the stress on political systems, only to find itself in uncharted waters. The global financial system is more prone to havoc than previously appreciated and its recession-fighting tools no longer pack a punch. Economists and politicians are certainly clever enough to adapt and respond to new challenges. What is unknown is whether world leaders are still confident and committed enough to averting geopolitical havoc to take the action so badly needed. ■

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Saudi repression

A dissident disappears

ISTANBUL

If Jamal Khashoggi was murdered, it would be a chilling escalation by an increasingly repressive Saudi state

JAMAL KHASHOGGI is gone, and with each passing day it seems more likely that his government killed him. A prominent Saudi journalist living in self-imposed exile, he visited the Saudi consulate in Istanbul on October 2nd to collect some paperwork for a new marriage. A CCTV camera recorded him entering it. There is no sign that he left. Turkish police believe he was murdered by men flown in from Riyadh. Some believe it was a botched kidnapping. His body, say the Turks, was carved up with a bone saw and smuggled out in a black Mercedes van.

Though there is no proof, the evidence of foul play is mounting. On October 10th a pro-government Turkish newspaper published photos of the men it said were flown in from Saudi Arabia. Video footage showed them arriving at the consulate and leaving later that afternoon. One was later identified as a forensic expert; others as members of the Saudi security services. Turkey's president, Recep Tayyip Erdogan, has not repeated the allegation of murder. But it is unlikely police would have made such a claim without his blessing.

Saudi officials deny the charges and insist Mr Khashoggi left the building safely. But they have offered no evidence. The Saudi consul in Istanbul says, implausibly, that his CCTV system did not record any footage. He has not produced visitor logs or documents, nor even offered an account of

Mr Khashoggi's time inside.

It is no mystery why Saudi Arabia might have wanted to silence Mr Khashoggi. He was a critic of the powerful crown prince, Muhammad bin Salman. Mr Khashoggi wrote frequently in Arabic, penned a regular column for the *Washington Post*, and kept close ties with countless diplomats and journalists. For more than a year he used that platform to criticise growing repression in Saudi Arabia and urge an end to the war in Yemen. But he was hardly a radical. Mr Khashoggi was part of the Saudi elite, close to members of the royal family. In the 2000s he advised Turki al-Faisal, a former intelligence chief who became Saudi Arabia's ambassador to Britain and America. He often stressed that his criticism of the regime was constructive, not a rejection of the monarchy. His editor at the *Post* says he did not even like the label "dissident".

The brutal prince

Though his disappearance was widely covered because of his connections, it was not entirely unusual. The crown prince detained more than 100 royals and ministers in an "anti-corruption" sweep last year. Many hundreds of activists languish in jail; some may face the death penalty. Last year the Saudis detained Saad Hariri, Lebanon's prime minister, for two weeks. Even spiriting Mr Khashoggi out of Turkey

would have had precedent. In March a women's-rights activist, Loujain al-Hathloul, was arrested in Abu Dhabi, put on a plane to Saudi Arabia and, later, jailed.

None of this brought any consequences for Prince Muhammad. Heads of state and titans of industry still cheered him as a reformer and accepted Saudi contracts. But the latest escalation, if proven, may forever mark him for his ruthlessness. Murdering critics abroad is a tactic previously employed by despots like Saddam Hussein and Muammar Qaddafi, who used their embassies to terrorise exiles. It would be an unmistakable, brutal message to Saudi dissidents: the state can reach you anywhere. That Mr Khashoggi was an insider only makes it more powerful.

Mr Erdogan's relationship with Saudi Arabia was already strained, partly over his support for Qatar in its dispute with its Gulf neighbours. His country has become a haven for Arab dissidents, particularly exiled members of the Muslim Brotherhood, an Islamist group which the Saudis dislike and their Emirati allies detest (see next article). The authoritarian Mr Erdogan is also the world's leading jailer of journalists. Saudi apologists are using those facts to try to discredit any Turkish investigation. Prince Muhammad may not care much about a *démarche* from Mr Erdogan.

Other reactions will matter more. If the crown prince abducted or killed a critic in Istanbul, business leaders may reconsider attending an investment conference in Riyadh later this month. In America, where Mr Khashoggi lived, members of Congress have expressed outrage. President Donald Trump, who is close to the Saudis, bitterly feuding with Turkey and not exactly a champion of human rights, still said, on October 10th: "This is a bad situation. We cannot let this happen—to reporters, to ▶▶

▶ anybody, we can't let this happen. And we're going to get to the bottom of it."

A final question is how Saudis themselves will react. Prince Muhammad enjoys strong support at home, even though parts of his agenda are going poorly. His economic reforms have met predictable headwinds. His foreign policies range from missteps, like the blockade of Qatar, to catastrophes, like the war in Yemen. But his cultural reforms—granting women the right to drive, allowing cinemas and concerts—are broadly popular, and few independent voices are left to criticise him.

Saudi propagandists are working tirelessly to spread misinformation. Al Arabiya, a Saudi-owned channel, aired an interview with Mr Khashoggi's son, Salah, in which he suggested that his father was not even engaged. This is nonsense; acquaintances in Istanbul knew his fiancée. On social media Saudi commentators promote the absurd theory that Qatar killed him. In a recent conversation Mr Khashoggi lamented the cult of personality surrounding the crown prince. The media are not allowed to debate problems in Saudi Arabia, because that would suggest that the regime is weak, he said. He tried to nurture that debate while in exile. Perhaps even that was too much for the kingdom's increasingly autocratic leaders. ■

Israel and China

Too open for business?

JERUSALEM

Israel's commercial ties with China are raising security concerns

THE chief of one of Israel's intelligence agencies was recently surprised to discover that Chinese construction workers on a major building project might be able to see into a sensitive installation. But it is in keeping with a trend. Israeli security officials are growing increasingly uneasy with China's expanding role in the economy, particularly its involvement in several big infrastructure projects and its purchase of cutting-edge technology.

The concern falls into two broad categories. The first is over Chinese control of strategic infrastructure and the possibility of espionage. Officials are reluctant to go on the record, but many point to the new commercial-shipping facility in Haifa as an example of what is at stake. It is run by the Shanghai International Port Group, which won the tender in 2015 and began working on the site in June. Haifa is Israel's busiest port and the base of its main naval fleets. Israeli submarines, widely reported to be capable of launching nuclear missiles, are docked there. Yet the deal with the Chinese

Istanbul's Arabs

Dissident haven

ISTANBUL

A century after Turkey lost its Arab provinces, Istanbul is an Arab capital again

REFUGEES, dissidents and émigrés from across the Arab world are flocking to the old imperial city which ruled their lands until 1918. In Mukhtar, a popular café in Istanbul's "Little Syria", outcasts from regimes that crushed the Arab spring sip coffee spiced with cardamom—and plot their comeback. They hail from Egypt, Syria, Yemen and other Arab countries where the Ottoman Turks once ruled. Some advocate peaceful means, others violent. "These tyrants will never hand over power peacefully," says a Kuwaiti dissident.

Istanbul may host as many as 1.2m Arabs, including many of the 3m-plus Syrian refugees in Turkey. A former presidential candidate from Egypt is there, along with Kuwaiti MPs stripped of their citizenship and a crop of former ministers from Yemen. Dozens of Arab websites, satellite-TV stations and think-tanks relay grievances back home. Istanbul's Arab Media Association now counts 850 journalists as members.

Most Arab states deny citizenship to foreigners and their offspring, even those born and raised in their countries. By contrast, Arabs may get a Turkish passport after five years of residency, or immediately if they bring in at least \$250,000. "There they treat us like slaves," says a Lebanese education consultant who took a pay cut to move from Dubai to Istanbul. "Here we belong." Some Arabs arrive after failing to win asylum in less friendly Europe. "It's more familiar, Muslim and closer to home," says an applicant. Saudis snap up property in case things go wrong back home.

Turkey's political system is another attraction. Its democracy looks flawed to European eyes. But it is a paragon compared with most Arab regimes. Its president, Recep Tayyip Erdogan, whose wife is of Arab origin, still openly champions the Arab uprisings of 2011 and the Mus-

firm was never discussed by the cabinet or the national security council, a situation one minister described as astonishing.

The other concern is over the transfer of weapons technology to the Chinese. Gone are the days when Israel would sell them military hardware. After numerous complaints from America, Israel agreed to cut off arms sales to China in 2005. But a grey area has sprung up around dual-use technology, such as artificial intelligence and cyber-security products, which could be used for surveillance and intelligence pur-

lim Brothers who briefly ran Egypt until its current president, Abdel-Fattah al-Sisi, took over in a coup in 2013. "It's the last corner of the Arab spring," says Ayman Nour, once a candidate for Egypt's presidency, who now runs his own television station from the city.

These days hot Arab bands come to play in Istanbul. The city also hosts the biggest Arab book fair in a non-Arab land. Last month a school opened for Palestinians from Israel, the West Bank and Gaza. Ibn Haldun, a new university on Istanbul's outskirts, offers scholarships to students across the *umma*, or Muslim nation, to promote Islamist values. Mr Erdogan's son, Bilal, is on the board. A new Arab Council for the Defence of Revolutions and Democracy seeks to bring all the city's Arab émigrés together. But after the disappearance of Jamal Khashoggi, a Saudi journalist, their haven may feel a bit less safe.



Islamists welcome

poses. This worries Israel and its allies alike. Security officials note that China is the biggest trading partner of Iran, Israel's mortal enemy. China has helped modernise Iran's armed forces and sold it civil nuclear technology.

The Chinese are always trying to find ways to buy dual-use products, say Israeli businessmen. Security officials fear more of it is making its way to China.

Israel's commercial ties with China have flourished under Binyamin Netanyahu, the prime minister, who met President ▶▶



Let's make a deal

► Xi Jinping in Beijing last year (see picture). In the first eight months of 2018 Israel sold \$3.5bn-worth of goods and services to China, up 63% compared with the same period last year. China accounts for a third of the investment in Israel's impressive technology sector, said Mr Netanyahu last year. The prime minister will host Wang Qishan, China's vice-president, for an "innovation summit" in Jerusalem on October 24th. Mr Wang, the most senior Chinese official to visit Israel, will be accompanied by a large delegation of Chinese investors, including Jack Ma, China's best-known e-commerce tycoon.

But Israel's oversight of its trade with China does not appear to be keeping up with the pace of commerce or technology. Special export licences are needed to sell some dual-use technologies, but there are plenty of loopholes, say Israeli businessmen. In his zeal to improve commercial ties, Mr Netanyahu has dragged his feet on plans to form a government agency that would regulate deals with China—and, he fears, slow down trade. "Israel has to do business with China, of course, but there is no serious mechanism to make sure that we don't sell off key economic assets and valuable technological knowledge," says Efraim Halevy, a former head of Mossad, Israel's foreign-intelligence service.

With oversight lacking, Israeli firms are often left to police themselves. "Ultimately Israeli companies want to be able to work both in China and in the West," says an Israeli businessman with nearly two decades of experience selling high-tech products to the Chinese. "It means we have to regulate ourselves and learn how to say no to the Chinese when they want to buy or invest in some of our products." Unsurprisingly, security officials are not satisfied with that set-up. ■

Ethiopia and Eritrea

Prison break

ADIGRAT AND ZALAMBESSA

Thousands of Eritreans are streaming out of the country

THE hotels of Adigrat, an entrepot near Ethiopia's border with Eritrea, are always busy during Meskel, a feast celebrated annually by Orthodox Christians in both countries. But this time room prices have soared. Returning visitors reckon the numbers congregating in the city's streets are twice those of previous years. Eritrean flags pop up amid the Ethiopian bunting. On a street corner a girl sports a shirt commemorating Eritrean independence. Outside a café Nigusse Bararki, an elderly Eritrean, sits with his family, which lives in Ethiopia. They were recently reunited for the first time in more than 20 years.

The reason is peace between Eritrea and Ethiopia, which came into force in July, nearly two decades after war broke out in 1998 (and 18 years after the signing of a peace deal in 2000 that was then ignored by Ethiopia). Friendlier relations have brought hope. They have also brought people. In the first two weeks after the land border was opened on September 11th by Ethiopia's new prime minister, Abiy Ahmed, and the Eritrean president, Issaias Afwerki, more than 15,000 Eritreans crossed the frontier. Many are on holiday and reuniting with family. Others are leaving to escape indefinite conscription.

The border is almost entirely open. Ethiopians can cross without visas and with only a cursory ID check. Even some foreigners have been able to enter Eritrea without any documentation. There are as yet no customs officers or tariffs on any goods. Most remarkably, Eritreans are for the first time in years able freely to leave the country without permits or the risk of being shot. "Before you could never leave," says Muhammad, an Eritrean naval seaman on holiday in Adigrat with family. "But now there is no security, no soldiers, and all is peaceful."

Even before the border was opened, Eritrea, a tiny country of about 3.2m people,

was one of the biggest sources of migrants and refugees crossing into Europe. A few years ago the UN reckoned that about 5,000 people were leaving every month. Since nobody knows how long the border will stay open, thousands are rushing across. According to the UN the number of people registering as refugees has jumped from 53 to 390 people a day. "We are very afraid—maybe it will close again," says a young Eritrean woman catching a bus from Mekele to Addis Ababa, the Ethiopian capital, where she hopes to find a house and a job.

Trade, which had ceased entirely since the war, is booming again. The road from Adigrat to the border town of Zalambessa heaves each day with lorries loaded with cement, building materials and Ethiopian teff, a staple grain, bound for Asmara, the Eritrean capital. At markets in Mekele, the capital of Ethiopia's Tigray region, Eritreans sell electronics and clothes from the boots of their cars. Many of the new arrivals marvel at ATM machines and the fact that the city's many new buildings are not owned by the government. (Private construction is banned in Eritrea.)

This all has historical echoes. In the years immediately after Eritrea seceded from Ethiopia in 1993, after a long war for independence and a referendum, the two countries enjoyed a brief honeymoon. Citizens were allowed to move seamlessly between them. Mr Issaias mulled eventual political union as well as economic integration. Some imagined a "United States of the Horn of Africa".

But soon came allegations that Eritrea was undermining Ethiopia's economy. Locals in Tigray recall the sheets of corrugated iron imported from Asia, stamped with marks saying "Made in Eritrea", and brought into Ethiopia without being taxed. Some fret that similar economic tensions may emerge again. "It's déjà vu," says a veteran Ethiopian diplomat.

Nobody knows why, after years of locking his citizens in, Mr Issaias appears to have had a change of heart. Some wonder if letting out those opposed to his tyrannical rule is a way of easing pressure on him to reform. Fewer youngsters at home also means fewer who will need jobs once the expected demobilisation of the army and civilian conscripts begins.

Even the president's colleagues appear to be in the dark. Last week three ministers were reported to have resigned in protest. There are also murmurs of discontent in the army. After years of saying that Eritrea would never negotiate until Ethiopia had withdrawn its troops from the disputed town of Badme, Mr Issaias has done precisely that. Eritrean troops have pulled back from the frontier but Ethiopian forces have yet to do so. For many citizens, however, it seems wise to scoot now and ask questions later. ■





Elections in Nigeria

An ugly beauty contest

ABUJA

Nigeria's election will pit two familiar foes against each other

AND then there were two. After a long night of intrigue and counting in primary elections in Port Harcourt, the People's Democratic Party (PDP), Nigeria's main opposition, chose Atiku Abubakar as its presidential candidate for the elections in February. At the same time, the ruling All Progressives Congress (APC), more predictably, unanimously backed the incumbent, Muhammadu Buhari, for a second term.

Both candidates are boringly familiar to voters. Mr Abubakar has been in every election since 1999; Mr Buhari every one since 2003. Oddly for a country where half the population is younger than 18, both candidates are in their 70s. Both face the challenge of energising an electorate that is growing disenchanted by extravagant promises that bring little change.

Equally striking is that both are northerners, Muslim and belong to the Fulani ethnic group. That ought to be of little consequence. But it counts for much in a country where people often vote along ethnic and religious lines, and where parties usually ensure that candidates from the north and south take turns standing.

For all their outward similarities, the two are quite different characters. Mr Abubakar, a wealthy former vice-president and customs-service chief, is a politicians' politician, a gregarious character who masterfully outflanked his rivals in Port Harcourt. He campaigns as a business-friendly candidate who will get Nigeria's economy going. By contrast President Buhari, austere and introverted, is a former military ruler

Beer in Niger

The devil's brew

NIAMEY

Breweries in Africa nearly always make money. Not in Niger

IN AN industrial park in Niamey, the capital of Niger, unemployed men rest in the shade from thirst-inducing heat. Warehouses gather dust. But there is a buzz around the country's only brewery. Steam billows from 50-year-old copper cauldrons, and bottles rattle off the conveyor belt before they are stamped with a label bearing two giraffes and the words: "Bière Niger".

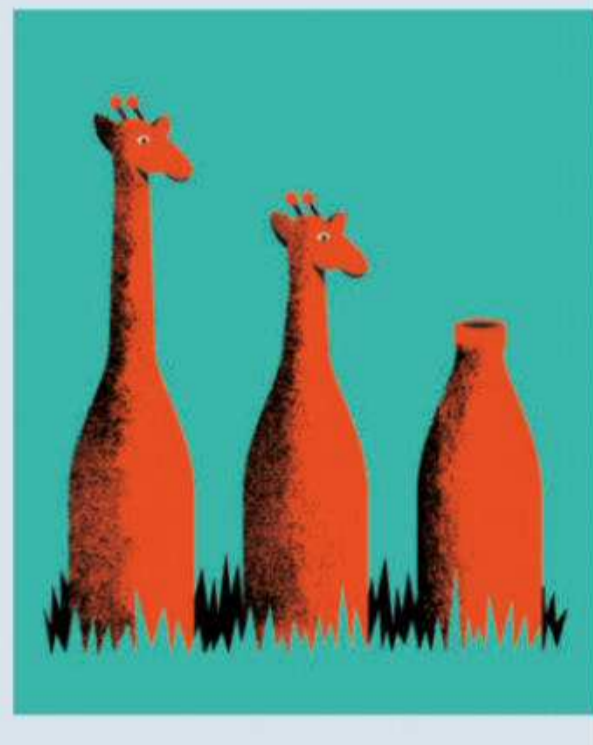
Not many people associate Niger, which is mostly Muslim, with beer. The brewery, Braniger, was founded in 1967, seven years after Niger's independence from France. Its turbulent history says much about the fragility of Niger's economy. In the 1990s the regional currency, the CFA franc, was devalued by about half, driving up the cost of the imported raw materials. Instead of raising prices, Bière Niger shrank its bottles by a third.

The brewery, part of Castel Group, a French family firm, survived the crisis but has again lost its fizz. Xavier de Boisset, Braniger's director, says that it is the only one of Castel's 67 African breweries that is losing money. One reason is its tax bill, which it says has gone up about 20% over the past five years. Others are geography and corruption. Since Niger is landlocked, its imports of malt and barley have to come overland. Import taxes, as well as unofficial ones extracted at checkpoints, lead to delays and drive up costs.

Although the economy is expanding and the population is booming, demand

is doing neither. This is perhaps because Nigériens are becoming more religious. "The *marabouts* (imams) say that Bière Niger is the devil's drink," says Karl Nienhaus, its technical director. Once-proud employees no longer tell people they work at the brewery.

A year ago Mr de Boisset was dispatched to close the brewery. Instead he hopes to save it by offering an even smaller, cheaper bottle. The pale, bittersweet lager will never win awards in Europe. But it washes down the dust rather well. When the mercury hits 42 °C, a small beer is better than none.



who does not hurry to make decisions and is suspicious of Nigeria's corrupt political and business elite. Mr Buhari's aides say his administration can claim successes in the fight against jihadists in the north-east and in diversifying the economy away from its dependence on oil, which once accounted for 90% of government revenues.

Corruption is likely to be a prominent issue. Mr Abubakar was singled out by America's Senate in 2010 in a report on money laundering. It said he had channelled substantial funds of uncertain origin into America through proxy accounts. Mr Abubakar is backed by Goodluck Jonathan, a former president under whose chaotic rule between 2010 and 2015 corruption proliferated. Mr Abubakar's supporters note that their candidate is the most investigated politician in Nigeria's history, and that no charges have ever stuck.

Mr Buhari's extraordinary victory in 2015 challenged the long-held view that it was impossible to unseat an incumbent in

Nigeria. A key to his success was his ability to hold together an awkward coalition of parties to defeat Mr Jonathan. To repeat the trick, Mr Abubakar will need to win the full-throated support (and financial resources) of rivals he has just trounced for the nomination.

Mr Buhari's challenge is different. Although his nomination was uncontested, the party has been tearing itself apart over which candidates will run for state governorships and seats in the senate. The first lady, Aisha Buhari, said on Twitter that some of the APC's primaries had been rigged. She criticised party managers for sanctioning a culture of "impunity".

Her husband will need to impose discipline on the party. Turnout in 2015 was just 43%. In more recent state elections it dropped to 20%. In a system where the party machinery is needed to turn potential support into actual votes, it is the battle within that may determine the outcome of the presidential election. ■



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Ukraine

Along the contact line

AVDIIVKA AND DONETSK

Peace in eastern Ukraine seems as far away as ever

“DO YOU know where you're heading?” asks Andrei, a wide-eyed Ukrainian soldier stationed at the edge of government-controlled territory in the country's war-torn east. On the other side of the front line, Artyom, a burly border guard in the Russian-backed separatist enclave, passes his days in a booth adorned with a “Donetsk People's Republic” emblem and two portraits—Vladimir Putin, Russia's president, and Ramzan Kadyrov, the brutal ruler of Chechnya. There Artyom interrogates arrivals who arouse his suspicions, inquiring about their allegiance while rubbing a combat knife strapped to his left thigh.

As the war in Ukraine drags into its fifth year, there is still no end in sight. Large swathes of the Donbas region remain under the control of separatists. A 500-km “contact line”, bristling with landmines, cuts through it. More than 10,000 people have been killed there since 2014. Casualties continue to pile up, although at a slower rate than in the past. Earlier this month, three schoolboys were blown up by a landmine not far from Artyom's post. In Avdiivka, a front-line town in Ukrainian government-controlled territory, even a recent stretch of relatively quiet months seems ominous: “When things are calm for a long time, it usually ends badly,” says Olga, a doctor stationed there. Talks aimed at resolving the conflict have ground to a halt ahead of Ukraine's presidential and

parliamentary elections next year.

Although the world's attention has shifted, Ukrainians still see the war as the country's most important issue, surpassing corruption and the economy. Petro Poroshenko, Ukraine's president, has employed a slogan: “We stopped the aggressor and defended the country!” Yet few place much faith in the Minsk II agreement, the accords signed in 2015 that call for the separatist-held territories to return to Ukrainian control and be granted a nebulous “special status”. These comprise large parts of the Donetsk and Luhansk *oblasts*. Disputes over implementation have been stuck in a vicious circle for years: Ukraine argues that security and control over the border with Russia should come before

political steps; Russia insists on receiving political guarantees before relinquishing control of the territory it holds. Many in Ukraine believe the accords, imposed during a ferocious Russian advance, are a rotten deal. Continuing to rely on them is “like riding a dead horse”, argues one MP.

Privately officials acknowledge that the Minsk agreements will need to be amended, expanded or even replaced before a settlement can be reached. One addition under discussion is a UN peacekeeping mission. Kurt Volker, the American special representative for Ukraine, says several countries have already agreed to contribute forces, among them Sweden, Finland, Belarus, Turkey and Austria. Yet negotiations with Russia over the mandate have ground to a halt. Until Mr Putin decides otherwise, the smouldering status quo will endure. There has been no meeting between Mr Volker and his Russian counterpart, Vladislav Surkov, since January. Plainly, Russia has decided to wait to see what happens at the elections, hoping to end up with more pliable counterparts in Kiev, if not as president, then at least controlling a large chunk of parliament.

In the meantime, the separatist republic in Donetsk plans to hold its own pseudo-elections this November, following the assassination of its nominal head, Alexander Zakharchenko, at a café in Donetsk in August—the latest of several commanders to meet untimely deaths on their home turf. While Russian and separatist officials blame his killing on Kiev and the West, an inside job looks more likely, with Russia seeking to clear away troublesome local leaders. Yet throughout Donetsk, Mr Zakharchenko's likeness still adorns billboards, alongside such quotes as “We have one motherland and that is Russia.”

Though the division of the Donbas is artificial, the longer the rupture remains, ▶▶



▶ the harder reintegration will become. “The sides seem determined to reinforce their positions on the ground and their physical separation from each other,” argues a recent report by the International Crisis Group, a Brussels-based watchdog.

Even if the troops eventually retreat, the basic steps necessary for political reconciliation, such as drawing up voter lists for credible elections, will be devilishly difficult. Over 1.5m people have been displaced. Crossing the contact line illustrates the estrangement: those leaving Ukrainian government-held territory have their passports stamped as if leaving the country; visitors to separatist-held territory are issued “migration cards”, copies of a document handed out in Russia. The separatist authorities have commandeered telecoms infrastructure and launched a local phone network called “Phoenix”, which, symbolically, cannot connect with Ukrainian cellphone networks.

For civilians on both sides, the political games have gone on far too long. Most want an end to the conflict, whatever the final configuration may be. Despite the fighting, they try to hang on to the pleasures of normal life. In Avdiivka, Evgeniy, a sandy-haired teenager, skips home from school past a shrapnel-scarred apartment block, though he admits that “the nights are still scary.” Long passes soar over a football pitch nearby where locals still play. Across the line in Donetsk, maintenance workers keep central gardens neatly sculpted. The opera theatre advertises new autumn productions, including “Turandot” and Alexander Pushkin’s “The Queen of Spades”. Yet like the elusive Ace in Pushkin’s drama, peace for the people of eastern Ukraine is out of reach. ■

Bavarian elections

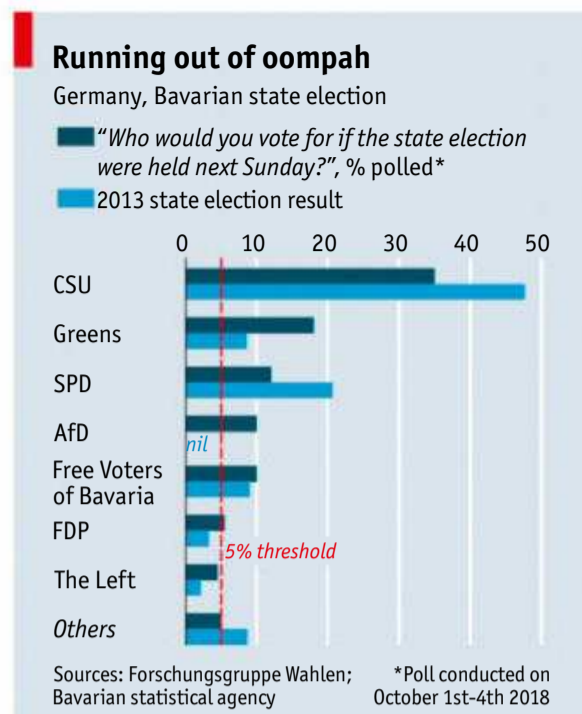
Conservative conundrums

NUREMBERG

Is the CSU lion losing its roar?

AN EAR-SPLITTING roar of drums and trumpets blasts out of speakers as Bavaria’s premier, Markus Söder, makes a grandiose entrance. Never afraid of a bit of kitsch, he’s back in his home town, Nuremberg, for a pre-election rally before Bavaria goes to the polls on October 14th. A gibe at Berlin’s coalition chaos elicits a cheer and jokes about rival parties get the crowd roaring with laughter. He is relaxed, confident and eloquent; you would think his campaign was going well. Except that it isn’t.

Polling at around 35%, his conservative Christian Social Union (CSU) party is likely to lose its absolute majority. It would still



be Bavaria’s largest party, but would have to cobble together an uncomfortable coalition—traumatic for a party that, apart from one term, has ruled Germany’s largest state single-handedly since the 1960s. The shock waves would be felt in Berlin, where Angela Merkel’s centre-right Christian Democratic Union (CDU) relies on a long-standing alliance with the CSU.

The CSU’s woes can be traced back to one issue: migration. Not because Bavaria is reeling with migrant-related problems. Well-organised local authorities have dealt efficiently with the influx of asylum-seekers in 2015 and 2016. Since then, thanks mostly to an EU deal with Turkey, migrant numbers have dropped drastically. And Bavaria’s booming economy means the state can afford to help asylum-seekers, and even needs migrants to fill jobs. But migration is an emotional topic that has unnerved some voters and divides society. The CSU has handled it badly.

Bavarian conservatives have an almost religious belief that no party should exist to their political right, and reacted with panic to the success of the anti-migrant Alternative for Germany party, AfD. In 2015 and 2016 around 1.5m asylum-seekers arrived in Germany, most of them first crossing the southern border into Bavaria. The AfD, founded as an anti-euro party in 2013, had been starting to flag. It spotted its opportunity and morphed into an anti-migrant party. CSU leaders at first tried to outflank it with anti-refugee rhetoric. This legitimised right-wing populism, making the AfD more palatable to some mainstream voters. The CSU’s alliance with Angela Merkel, who is demonised by anti-migrant activists, meant the tough talk was never credible. The AfD is now polling at around 10-11%, and is poised to enter the Bavarian state parliament for the first time.

At the same time the CSU’s anti-migrant stance has put off pro-refugee conservatives, in particular churchgoers. The “C” in CSU stands for Christian, after all, and the

party likes to highlight its religious roots. But Catholic and Protestant churches have been active in helping refugees. “Some church leaders have distanced themselves from the CSU,” says Father Jörg Alt, a Jesuit priest who published an open letter, signed by more than 100 prominent church figures, criticising CSU refugee policies such as deportations. Some parishes are trying to prevent expulsions by providing migrants with church asylum—an ancient law which means the authorities have no jurisdiction over people as long as they remain on church property. Last year 276 asylum-seekers were given church asylum in Bavaria.

CSU leaders have belatedly realised their mistake. They have stopped imitating the AfD, and started criticising it instead, branding the party extremist and ruling out entering into coalition with it. But many centrist voters think the change of tone is too late to be effective, and the turnaround too drastic to be credible. They are considering the Green Party instead, which is running second after the CSU, polling at around 18%. A weakened CSU would reshape Germany’s national politics. In the short term Mrs Merkel might be relieved to lose Horst Seehofer, the CSU leader and her rebellious interior minister, who has repeatedly clashed with her over migration. He looks likely to be pushed out after October 14th as the scapegoat for a CSU disaster. A chastened CSU might make Mrs Merkel’s life easier. But it would also make her coalition weaker. ■

Latvia’s election

Russian quarter

RIGA

Ethnic Russians vote for their own

RIGA’S central market, a bustling mosaic of stalls in the shadow of a Stalin-era skyscraper, is a testament to Latvia’s economic success. But, shopping there before the country’s election on October 6th, Aleksandr did not share in the cheer. As one of hundreds of thousands of ethnic Russians who were not granted citizenship when Latvia seceded from the Soviet Union in 1991, he cannot vote: “I’m stateless, and my 30-year-old son is stateless too.”

Ethnic Russians make up about a quarter of Latvia’s population. Most are citizens, and as usual the Harmony party, which gets most of their support, came first in the election. On issues like statelessness and protecting bilingual education, ethnic Russians feel that only a party of their own can represent them. Most get their news from Russian-language TV stations, many ▶▶

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▶ with links to the Kremlin. Other Latvian parties always rule out letting Harmony into government.

During the campaign, Harmony's leader, Nils Usakovs, the mayor of Riga, tried to bridge the gap. Last year Harmony ended its co-operation with United Russia, Vladimir Putin's party, and joined the Socialists and Democrats group in the European Parliament. On sanctions against Russia, "we support a united European stand," Mr Usakovs says. He cultivated two hawkish American senators, Lindsey Graham and the late John McCain, and hired a campaign consultant linked to them.

It did not work. Harmony's vote share dropped from 23% in 2014 to 20% this year. The unlikelihood that the party would be allowed into government depressed ethnic Russian turnout, says Janis Ikstens of

the University of Latvia: "They said, what's the point?" Ethnic Latvians remain suspicious of Harmony, pointing to corruption scandals under Mr Usakovs in Riga.

Forming a government will be hard, and may take months. Six other parties split the rest of the vote. The second-largest, Who Owns the Government? (KPV LV), is a populist outfit run by a former actor who calls for throwing out the traditional political elite. The third-largest, the New Conservatives, wants to cut taxes while raising pensions and child benefits. Both parties hope somehow to increase Latvia's population, which has shrunk from 2.38m in 2000 to 1.93m today due to emigration and low birth rates. That is the deeper reason why ethnic Latvians are still wary of their ethnic Russian compatriots: fear that their tiny nation will be overwhelmed. ■

French nationalists

She's back!

PARIS

Marine Le Pen's new National Rally is hoping to come top next year

LESS THAN 18 months ago, Marine Le Pen was beaten and exhausted. She had lost the French presidential run-off to Emmanuel Macron, after a wild-eyed debate performance that left her fans aghast. Her leadership of the National Front, a party of blood-and-soil populists, was strained, and she was said to be depressed. Within months, she lost her closest ally, Florian Philippot, and found her party's French bank accounts unexpectedly closed.

Yet there she was in Rome on October 8th with a new glint in her eye. Alongside Matteo Salvini, Italy's interior minister, a beaming Ms Le Pen railed against "totalitarian" Europe and proclaimed the start of a new "history with a capital H". Populism and nationalism may have been defeated at the ballot box in France in 2017. But Ms Le Pen is hoping that next May's elections to the European Parliament will show that her party, renamed the National Rally, is still a force to be reckoned with.

Thanks to a turnout that is usually low, and the opportunity for a low-risk protest vote, the French far right has often done well at European polls. In 2014 the National Front came out on top in France, with 25% of the vote. Next year's ballot will be the first mid-term electoral test for Mr Macron. After a summer of poorly handled scandals and offensive remarks, the president's popularity ratings have tumbled. This week Mr Macron was struggling to reshuffle his government, more than a week after his interior minister, Gérard Collomb, resigned after complaining that the president lacked humility. Next May's election will be "very complicated", says one of his deputies. "The risk is that the vote turns into a referendum on him." As it is, one poll puts Ms Le Pen's outfit neck-and-neck with Mr Macron's La République en Marche, on about 20%, comfortably ahead of all other parties. Ms Le Pen could well come out on top again. "The populist wind is blowing everywhere," warns Xavier Bertrand, president of the Hauts-de-France region, who beat Ms Le Pen to that job in 2015.

Ms Le Pen hopes to benefit from this breeze. More importantly, she has enacted a strategic shift on Europe that could make the National Rally a less alarming prospect for certain voters. After the Brexit referendum in 2016, and steered by Mr Philippot, then a party vice-president, Ms Le Pen became a Frexitier. A party poster at the time showed a pair of fists breaking their shackles next to the slogan: "Brexit, and now ▶▶

Hungary

Becoming a pest

BUDAPEST

The capital's party district is annoying locals

STANDING on the corner of Dob Street and Hollo Street, in the heart of Budapest's old Jewish quarter, David Popovits counts at least 20 bars and restaurants within easy reach. Mr Popovits, 44, a local entrepreneur and bar owner, knows the quarter well. As a child he would come here with his father, bringing kosher food for his grandmother. "Back then it was a run-down, even dangerous place. Even ten years ago there were two restaurants and three pubs here. Now there are hundreds of places across District VII."

District VII has a rich past. The site of the wartime Jewish ghetto, it is still home to the Great Synagogue on Dohány Street, the second-largest Jewish place of worship in the world, and to many other architectural jewels. Haunted by history, the narrow alleys and tree-lined squares have survived invasion by Nazis and Soviet forces. Now it is known as the *buli-negyed*, or party quarter. But the latest incomers, the thousands of tourists pouring into the hipster-run pubs and artisan cocktail bars every night, are causing growing resentment.

Locals are weary of being woken by drunken revellers, and picking their way through puddles of urine and vomit the next morning. District VII used to be a quiet, sleepy neighbourhood, says Michael Miller, a long-term resident, author of "Rabbis and Revolution", who teaches Jewish history at Budapest's Central European University. There were few tourists, except for those who came to see the Jewish areas and pay their respects to the site of the wartime ghetto. "It's be-

come a destination for British stag and hen parties and most of the bars and restaurants cater for this crowd." The tourists' money is welcome, says Andras Torok, an author and cultural historian, but the influx is "out of hand and makes life hell for locals".

District VII municipal officials held a referendum in February asking whether the area's bars, cafés and clubs should be closed between midnight and 6.00am. A majority said yes, but the turnout failed to reach the 50% threshold needed for the vote to be valid. Officials have pledged to work with locals to reduce the noise and mess as part of a new citywide plan. For locals, it's time to say goodbye.



Oh, don't ask why



Aux armes!

France!" Last year she campaigned for a referendum on EU membership and a return to a "national currency" in place of the euro. Pensioners feared for the value of their savings. At first-round voting last year, only 10% of the over-70s voted for Ms Le Pen—less than half her overall total.

As post-election recriminations flew within the party, however, Mr Philippot quit, and Ms Le Pen revised her Europe policy. Out went the promise of a membership referendum and the confused talk about a new currency. In came a pledge to work towards a reformed "Europe of nations". This was her songbook in Rome when she met Mr Salvini, another reformed Leaver. Together they promised to reshape the EU and free it from the clutches of "those holed up in the Brussels bunker". Ms Le Pen is no longer in favour of quitting the EU, but of conquering it. (Cynics might note that "in Europe, but not ruled by Europe" was the refrain of many Conservative leaders in Britain.)

It was a measure of renewed confidence that Ms Le Pen also used her visit to Rome to distance herself from Steve Bannon. Although previously eager to welcome Donald Trump's former strategist, she now seems keen to show that her pan-European ambitions are not the work of an American. Ms Le Pen still faces difficulties at home. A court has ordered her to undergo a psychiatric test in connection with a case, brought under an absurd law, for tweeting images of Islamic State violence. In a separate investigation into payroll abuse, a court has seized €1m (\$1.15m) of public subsidies from the party. Yet this week is a reminder that France's nationalists were defeated in 2017, not crushed. ■

Svalbard

Melting away

LONGYEARBYEN

Climate change threatens homes in the high Arctic

LIFE in Longyearbyen, the world's northernmost town, can be harsh. Average high temperatures in July top out at 8°C; for three and a half months in the winter, the sun does not rise at all. Polar bears roam freely, meaning that anyone leaving the settlement of just over 2,000 people must carry a rifle. The mountainsides are bare but for a couple of shacks marking the entrance to the coal mines that brought the town into existence. Medical services are limited, and specialist care must be sought on the Norwegian mainland. Indeed, few if any people are born, or die, on the island of Svalbard, but instead move from the mainland for a few years.

Still, lower down in the valley, where a few scrappy blades of grass manage to grow, the colourful houses of today's Longyearbyen residents, engaged mostly in tourism, line the mountains' lower slopes. Despite their cheery appearance, they are increasingly threatened by climate change.

The biggest danger comes from the increased risk of landslides and avalanches, linked to climate change. One avalanche in December 2015 killed two and destroyed 11 houses; another, in February 2017, destroyed two buildings containing a total of six housing units. Svalbard's local government reckons around 250 homes will eventually have to be torn down due to their location in risky areas.

Through Statsbygg, a state property-management company, Norway is ploughing Nkr220m (\$27m) into 60 new houses to replace those already destroyed, and some

of those still standing but most at risk. The first of these, shipped in modules from the mainland, were installed in September.

Climate change has made construction considerably trickier. Most of the town's edifices are built on wood piles frozen into the permafrost; now that it is melting ever deeper, these are at risk of rotting, and so becoming unstable. Statsbygg's new housing will consequently be put atop steel pilings driven deep through the permafrost to the underlying bedrock 10-15m beneath—the first residential buildings to be so constructed. The foundations will even come with sensors to monitor temperature and conditions. It is essential, says Hege Njaa Aschim of Statsbygg, to "be aware of everything [since] we cannot trust the permafrost anymore."

Other places in Svalbard are affected, too. The Svalbard Seed Vault was built in 2008 into the permafrost just outside Longyearbyen to store seeds of a huge variety of crops in case of catastrophe. The vault itself, deep inside the mountain, is still fine, but the access tunnel to it from the surface failed to refreeze in the permafrost as expected, leading it to be flooded with rain and meltwater in 2016. Now, Statsbygg is spending Nkr100m to replace it with a waterproof concrete one, and installing equipment around the tunnel to freeze the surrounding soil.

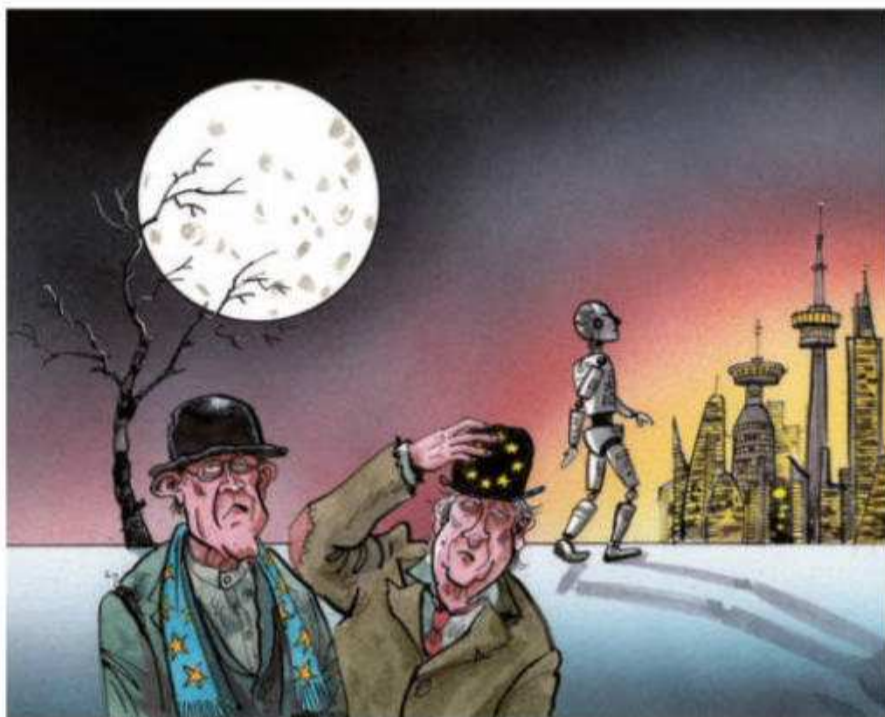
So far, these problems have not stopped adventurers from arriving. There is a unique appeal to life in the remote archipelago—for outdoor enthusiasts, say, who can hop on a snowmobile to explore majestic glaciers. Locals swear by the camaraderie born of the harsh environment. (Even Longyearbyen's fanciest hotels ask you to leave your shoes at the door, as if at home.) "Most people plan to come for a season, but end up staying for years," says one local. Amid the melting glaciers and the destabilising mountain slopes, it remains to be seen if they can still do so in the future. ■



That sinking feeling

Charlemagne | Waiting for Goodot

Europe's history explains why it will never produce a Google



ON SUNNY evenings in Brussels, young Eurocrats mingle on the bar terraces of the Place du Luxembourg outside the European Parliament. The continent's future leaders pay little heed to the bronze-green statue of John Cockerill at its centre. The Englishman commemorated at the heart of today's EU moved to Belgium from near Manchester in 1802, importing the latest steam technologies. He founded a machine factory in a chateau near Liège which grew into an industrial empire and helped make Belgium second only to Britain in industrial sophistication.

Is Europe living up to Cockerill's legacy? The continent has world-class companies in fields like biotechnology, luxury cars and nuclear energy, manufacturing sectors incorporating sophisticated software (a BMW these days is as much a computer on wheels as a car). London, a global tech hub, is home to DeepMind, a leading artificial intelligence (AI) outfit; Stockholm is home to Spotify, a dominant music-sharing service; Cambridge-based Arm makes processor chips for almost all the world's smartphones.

Yet still Europe lacks large firms in areas like social media, e-commerce and cloud computing comparable in scale to America's Google and Microsoft, or China's Alibaba and Baidu. Of the world's 15 largest digital firms, all are American or Chinese. Of the top 200, eight are European. Such firms matter. They operate dominant online platforms and are writing the rules of the new economy in the way Cockerill's innovations did in his day.

Mariya Gabriel, the EU's digital economy commissioner, worries that Silicon Valley and China now make the big decisions about the internet, and that this affects European domestic policy. She is right. Even BMW, for example, does much of its cutting-edge research in California and Shanghai. In Brussels officials talk of a "Sputnik moment", a sudden realisation of its technological disadvantage, akin to America's when the Soviet Union put the first satellite into space in 1957. Asked whether the continent will ever produce its own Google, one burst out laughing.

Europe's history explains the lag. In the 18th century, its lack of standardisation made it the cradle of the industrial revolution. Rules and markets varied. Entrepreneurs who did not find support or luck in one country, like Cockerill, could find it in another. All this created competition and variety. Today, however, Eu-

rope's patchwork is a disadvantage. New technologies require vast lakes of data, skilled labour and capital. Despite the EU's single market, in Europe these often remain in national ponds. Language divides get in the way. Vast, speculative long-term capital investments that make firms like Uber possible are too rarely available on European national markets. True, there is progress. European universities are working more closely together, and in 2015 the EU adopted a new digital strategy that has simplified tax rules, ended roaming charges and removed barriers to cross-border online content sales. But about half of its measures—like smoother flows of data—remain mere proposals.

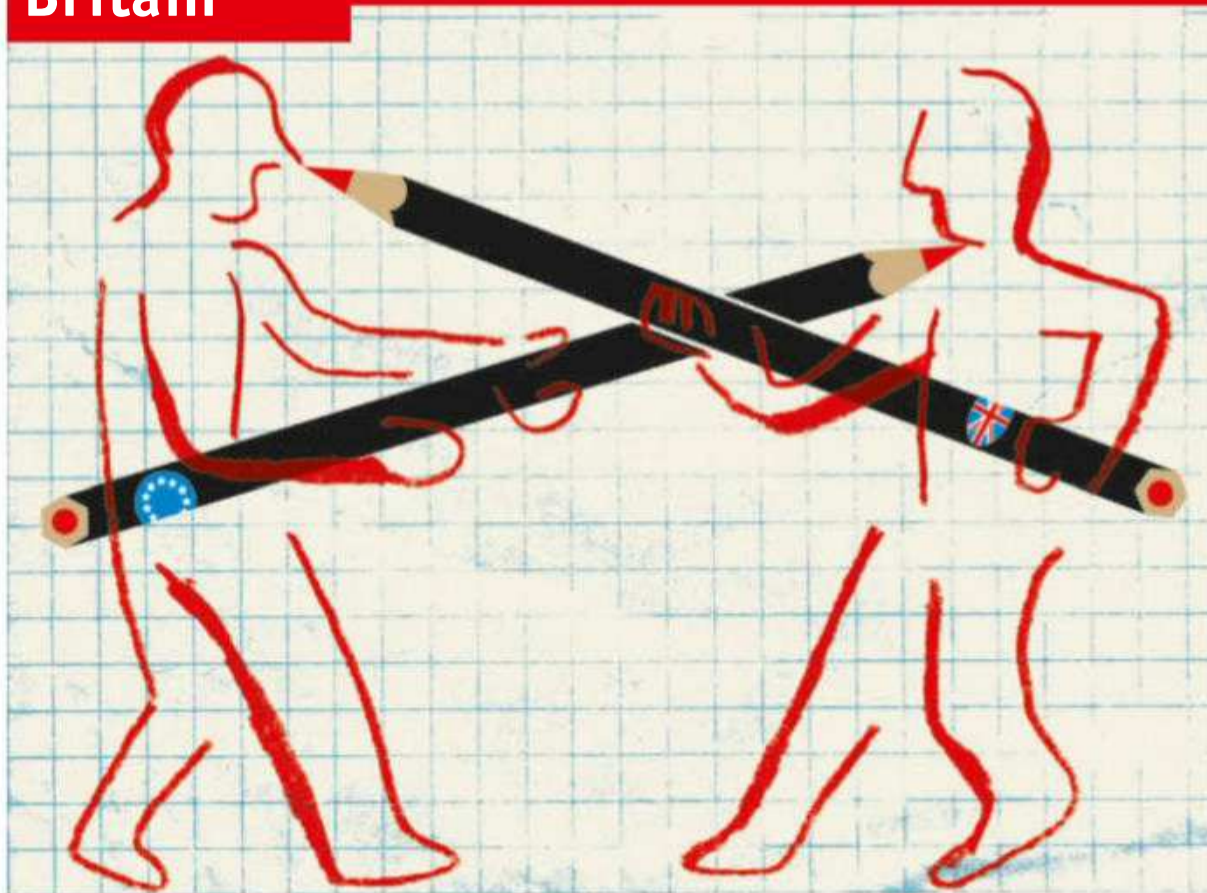
In the 19th century Europe was the first continent to industrialise, and institutions based on that experience have deeper roots there than elsewhere. Most European countries are still run by marmoreal Christian or social democrats descended from the struggle between bourgeoisie and workers. Their propensity for bold thinking is limited. European investors expect to be able to claim physical assets against their losses if a firm goes bust—bedevilling software startups than ten to lack them. Research is too often incremental, not radical. The burden of early industrialisation is also something of a geographic tale. Europe's traditional industrial heartlands are struggling to adapt to the new digital era, but those once on the periphery—Bavaria and Swabia in Germany, and cities like Helsinki, Tallinn, Cambridge and Montpellier—are leading the way, without the institutional fetters of old factory towns like Liège.

The 20th century also restrains Europe's technological competitiveness today. The collective experience of Nazi and Soviet surveillance and dictatorship makes many Europeans protective of their data (Germans, for example, are still reluctant to use electronic payments). Moreover, since 1945 the continent has mostly been at peace and protected by outsiders. So it has no institutions comparable to DARPA, the American military-research institution where technologies like microchips, GPS and the internet were born. Nor has it anything comparable to China's military investments in technology today.

In Cockerill's shadow

The equivalent historical forces in the 21st century could prove to be differing attitudes to migration. America's technological superiority is built on its ability to attract talented, success-hungry people, one reason businesses resist Republican plans to limit legal immigration. Of the 98 high-tech firms in the *Fortune* 500, 45 (including Apple and Google) were founded by immigrants or their children. China lacks immigration but sends many of its young abroad to study, and then repatriates their skills. Europe does neither and treats migration as a threat, as its debates about how best to seal off the Mediterranean show.

If it wanted to, Europe could improve. Its governments and the EU could create a genuine digital single market, do more to promote enterprise and institutional innovation and make the most of its strengths in, for example, biomedicine and transport. Better integration of capital markets would help as well. Europe could harness the growing uncertainty about America's trans-Atlantic security guarantees to invest serious cash in its own DARPA-equivalents. Europeans may even eventually come to view immigration as an opportunity. But all of this perhaps demands a greater awareness of history itself, of the diverging technological pasts and possible futures hovering over the continent like the bronze John Cockerill over the Place du Luxembourg. ■



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The Brexit negotiations

Filling in the gaps

The chances of a Brexit deal this autumn have risen. But getting anything through Parliament will be a huge challenge

THERESA MAY certainly has her downs and ups. The prime minister bounced back from last month's humiliating rejection of her "Chequers" plan for Brexit by European Union leaders in Salzburg, to what felt like a relative triumph at the Tory party conference in Birmingham a fortnight later. Next she will go to Brussels for an EU summit beginning on October 17th, widely trailed as the crunch moment for Brexit. Despite Salzburg, the mood music has improved. But time is running out, and rebellious MPs could yet blow up any deal.

For all the rebuffs to Chequers at home and from the EU, Mrs May's advisers are quietly confident. Their reasoning starts from the point that the immediate negotiation is not about Chequers or future trade relations at all, but about a withdrawal agreement. Almost all of this is settled, except for the hardest part: a "backstop" designed to avert controls at the Irish border under any circumstances.

The principle of the backstop was accepted by Mrs May last December. Yet putting it into practice has proved tricky. The EU wanted Northern Ireland to stay in a customs union and in regulatory alignment with the single market, implying a border in the Irish Sea. Mrs May, backed by the Northern Irish Democratic Unionist Party (DUP), on which her government relies for support, roundly rejected this. Her Chequers plan proposed instead that the

entire United Kingdom stay in alignment with the single market for goods, with customs controls avoided by fanciful high-tech wheezes. But the EU said no.

There should be ways out of the impasse, even so. One is to keep the UK, not just Northern Ireland, in a customs union until a high-tech solution is agreed on (though fixing a time limit for this, as many Brexiteers demand, is contradictory). The EU is nervous that this might turn into a back door, giving Britain privileged market access without such obligations as the free movement of people. But Mrs May can reassure them by expanding her commit-

ment to a level playing-field, by pledging to automatically observe all future EU social, environmental and labour-market rules. Anand Menon, director of the UK in a Changing Europe, a think-tank, adds that concerns over Britain stealing a competitive edge are exaggerated, because they ignore the cost of being subject to single-market rules with no say.

Even with such concessions, there would have to be more checks between Northern Ireland and Britain. But rather than intrusive two-way customs controls, this could mean regulatory and food-safety checks on goods going into Northern Ireland only. Inspections of live animals already take place. The backstop will anyway take effect only if a trade agreement does not deal with the border—as Mrs May says it will. The DUP's leader, Arlene Foster, again rejected any separate treatment for Northern Ireland after meeting the EU's Brexit negotiator, Michel Barnier, in Brussels this week, and her party is now threatening to vote against the British budget later this month. But in a crunch it may yet prove pragmatic.

That will depend heavily on the second component of a Brexit deal, a political declaration on the future relationship. Unlike the withdrawal agreement, this will have no legal force, so some vagueness about the outcome may be acceptable and even desirable. Mr Barnier talks of a declaration running to just ten to 15 pages. A draft may emerge in the days before the summit. It will include positive messages about future co-operation on security, defence and foreign policy, within the framework of an over-arching association agreement.

The hardest part will concern trade. Mujtaba Rahman of the Eurasia Group, a consultancy, says the British want "frictionless trade" to be a goal, citing the Che-

Trick or treaty

Time taken for recent free-trade agreements with the EU, years



quers plan of staying in the single market for goods. But the EU insists frictionless trade is possible only if Britain is in the single market and a customs union, a deal known as “Norway plus”. The only alternative, says Brussels, is “Canada plus-plus-plus”, meaning a more standard trade deal. Brexiteers like the sound of this, believing it would require less regulatory alignment than Chequers. But the pluses required by the EU include both the Irish backstop and a level regulatory playing-field, similar to

Chequers. And a Canadian-style deal would be a big step back from today’s barrier-free trade.

Again, there should be a way through. The commitment to frictionless trade can be cast in aspirational terms. The outcome could be interpreted as leaning towards either Norway or Canada. The EU will repeat that it is ready to offer more generous terms if the British position evolves, code for a further blurring of the red lines drawn by Mrs May. And there are signs that Brussels

itself is prepared to shift ground. Charles Grant of the Centre for European Reform, a think-tank, says several countries are keener to enforce a level playing-field on regulation than they are to keep untrammelled free movement of people. So some limits may be acceptable.

If a deal is done, it would presage a 21-month transition period after March 29th 2019, during which the trade agreement should be finalised. The big worry is that this is far too short a time. Free-trade deals typically take years, not months, to agree on (see chart on previous page). Any deal with Britain, the EU’s biggest trade partner, would be broader and more complex than all previous ones. And ratification by all national and some regional parliaments would take longer still. Trade negotiators conclude that provision must be made for extending the transition period, yet so far neither side has accepted this.

For the British, transition is very unappealing. More even than the Norway option, it means accepting all EU rules without any vote, a position labelled by many Tory MPs as vassalage. This is one of many reasons why getting a Brexit deal through Parliament will be hard. As EU leaders know only too well, Mrs May has no majority in the Commons. Labour and other opposition parties have made clear they will vote against her. The DUP may object to the terms of the Irish backstop. Hard Brexiteers opposed to Chequers will hate its successor. And soft Tories may prefer Norway or even a second referendum to anything that Mrs May puts before them.

In a doom loop, the difficult parliamentary arithmetic also makes it harder for Mrs May to secure concessions in Brussels. EU leaders see little point in helping her, only to see Parliament vote down a deal. Yet she has arguments on her side. She will point out that a rebooted Chequers deal with an Irish backstop is the only serious option on the table. To the 40 or so hardline Tory Brexiteers who insist they will vote against, she will repeat her line in Birmingham that pursuit of the perfect outcome risks ending with no Brexit at all.

Above all, Mrs May can highlight the danger of a no-deal Brexit if hers fails. Both the government and the EU have issued notices for what this might mean. Although Brexiteers claim it is all a giant bluff, the picture painted of long queues and stockpiled food and medicines is not pretty. Businesses on all sides are ramping up the pressure to avoid no deal. For all its intransigence, the DUP knows it would be disastrous, as it would imply a hard border in Ireland. And Mrs May will use the threat of no deal to try to peel off as many as 20 Labour MPs, who are disenchanted with their party leader. With the weight of the EU behind a deal, Tory whips believe they can eke out a parliamentary majority. Mrs May must pray they are right. ■

Scottish independence

The other Leavers

GLASGOW

Nationalists want to stay in the EU and leave the UK. Neither is on the cards yet

SCHEMES to stay in one union overshadowed plans to leave another at the Scottish National Party’s conference in Glasgow this week. Nicola Sturgeon, Scotland’s first minister and the SNP’s leader, backed a second referendum on the terms of the Brexit deal, which could keep Britain in the European Union. Ian Blackford, the party’s leader in Westminster, promised to cause “maximum disruption” in Parliament if the Conservative government ignored Scottish calls for a softer Brexit. Ms Sturgeon went further and demanded that any special post-Brexit status for Northern Ireland should apply to Scotland, too.

When it came to independence from the United Kingdom, though, such gambits were absent. Ms Sturgeon promised a long-term fight, rather than a quick escape. Passion was all well and good, she said, but it had to be mixed with “pragmatism, perseverance and patience to persuade those not yet persuaded.”

For now, Brexit is fine fodder in this task. A big majority of Scots—62%—voted to remain in the EU, but Scotland will leave anyway because of the wishes of English voters. Another referendum on Brexit would hammer this home. Scots would narrowly vote for independence in the event of a “no deal” Brexit, according to one poll. Some in the SNP are demanding that the party call for a second referendum soon. “We cannot dither at this point, we cannot be like the Jacobites in Derby!” declared Angus MacNeil, an MP from the Outer Hebrides, referring to a failed 18th-century rebellion.

But the party’s top brass are not keen on such a punt. A slim majority in the odd poll is not enough to risk another vote, which would be the last for many years. One of the few political missteps by Ms Sturgeon as first minister was a premature push for a second independence vote in the wake of the Brexit referendum. “There are many memora-



Sturgeon, ready to take back control

ble, heroic Scottish defeats,” said Michael Russell, the SNP’s constitutional minister. “We are not in that business.”

Brexit may make Scots keener on independence. But it also makes independence harder. The SNP wants Scotland to stay in the EU’s single market and customs union. But this would complicate trade with England, its largest market, which intends to leave both. Roping Scotland into whatever arrangement is devised for Northern Ireland is a pipe dream. The Irish backstop plan is designed to preserve a fragile peace process, not the competitiveness of Edinburgh’s financial sector.

As a result, the march to independence is becoming a slog. Unless support rises significantly, another referendum in the next few years is unlikely. In any case, the SNP has other worries. By the next election to the Scottish Parliament, in 2021, it will have been in power for 14 years. Its record is mediocre. If the pro-independence majority in Holyrood disappears, the SNP will be unable to launch a referendum at all.

Russia and Britain

A declaration of information war

A rare spies' press conference marks the start of a counter-offensive

ON MARCH 10th 2000, two weeks before a Russian presidential election, Tony Blair made a trip from Downing Street to St Petersburg to accompany Vladimir Putin to a performance of Sergei Prokofiev's "War and Peace". The idea came from a senior KGB officer, who suggested to his MI6 counterpart that it would help boost the international legitimacy of Mr Putin, who as prime minister had just launched a brutal war in Chechnya. Mr Blair obliged, becoming the first foreign leader to endorse the incoming president.

Nearly 20 years on, Britain is again leading the West's engagement with Russia—but in the opposite direction. Since March, when two officers in the GRU, Russia's military intelligence service, deployed a "novichok" nerve agent in Salisbury to try to murder a former Russian spy, Britain has been on the front line of efforts to counter the Kremlin's clandestine operations.

Russian campaigns of subversion and disinformation have paved the way for the annexation of Crimea, a war in Ukraine and interference in several Western countries' elections. In each case Mr Putin has denied responsibility, while also making sure that his message was received and understood. After Britain presented evidence against the two Salisbury suspects, the pair

appeared on RT, a Kremlin-backed television channel, cocking a snook at the police.

But a few days later they were turned into a laughing stock. First an investigative outfit, Bellingcat, and its Russian partner, the Insider, exposed their true identity, and their spectacular incompetence. Then on October 4th British and Dutch spymasters held a highly unusual press conference, revealing details of another botched operation, by four GRU agents who had tried to hack into the Organisation for the Prohibition of Chemical Weapons (OPCW) in The Hague, to disrupt its investigation into Russia's use of novichok.

The Dutch officials showed photos of a car boot packed with spying equipment, and even a taxi receipt for a ride from the GRU's headquarters in Moscow, which one of the agents had kept in his wallet. At the same time, America indicted seven Russian officers, including the four identified by the Dutch and British, for various cyber-attacks, including one on the World Anti-Doping Agency.

Western intelligence agencies have long known that Russia was the source of such attacks. The bungled raid on the OPCW took place in April, when Dutch counter-intelligence, tipped off by British counterparts, detained and expelled the

four GRU men. What was new, however, was the decision by Britain and its allies to publicise its intelligence.

This marks a new approach. Counter-intelligence agencies normally keep their findings under wraps, says Sir Mark Lyall Grant, a former national security advisor: "firstly because they don't wish to alert the adversary to their own capability, and secondly because they don't necessarily want to escalate the conflict." This time Britain and its allies decided that the benefits of exposing the Kremlin outweighed the risk.

The information divulged in The Hague led to the exposure of more than 300 suspected agents by Bellingcat and the Insider, marking Russia's biggest security lapse since the cold war. It made Mr Putin and his thugs look ridiculous, not terrifying. And it put the Kremlin on the back foot, justifying itself with ever-less credible stories, such as the notion that the spooks were there to test IT systems at the Russian embassy.

More Austin Powers than Rosa Klebb

Yet raising the stakes in this way is a forced measure. Mr Putin and his security services have long used intelligence to frustrate and embarrass Western countries. In 2014, for instance, they released bugged conversations between American diplomats in an attempt to portray the uprising in Ukraine as an American plot. But the chemical attack on Sergei Skripal, in which a British citizen was accidentally killed, was a step too far.

Sergei Boeke of the Institute of Security and Global Affairs, at Leiden University, says Russia has broken an unwritten rule of the spying game by using intelligence for offensive purposes, something normally reserved for war. The British-Dutch press conference amounted to an information counter-offensive.

The new tactic serves several purposes. One is to deter the Kremlin from carrying out further attacks. Another is to isolate and undermine Mr Putin. It may now be harder for his sympathisers abroad to look the other way when he breaks international rules. Russians, including members of the security services, may also have growing doubts about their president. Lastly, exposing Russian plots could make Western populations more resilient to disinformation. "We need to learn how to protect our open societies, without copying their methods," says Bob Seely, a Tory MP and member of the parliamentary Foreign Affairs Committee.

After the second world war, Britain developed an Information Research Department to counter Soviet propaganda. Sir David Omand, a former head of GCHQ, Britain's signal-intelligence agency, says it may be time to relearn from its experience of making threats transparent. "Sunlight is the best disinfectant," he says. "Lies cannot thrive in the light." ■



The Blairvich project

Bagehot | Sweetness and light

Melvyn Bragg's "In Our Time" proves that there is a mass market for high thinking



IN HIS essays on "Culture and Anarchy", Matthew Arnold argued that the only thing which could prevent industrial societies from disintegrating into warring tribes was high culture. High culture pulls society together by popularising the "best that has been thought and known in the world" and thereby encouraging everyone, regardless of their social background, to live together in an "atmosphere of sweetness and light".

Britain stands in more need of sweetness and light than it has for decades. Globalisation has divided the country between winners and losers, while social media has divided the population into solipsistic tribes. The Brexit vote has unleashed dangerous passions. And a glance across the Atlantic suggests that there could be worse to come. Yet sweetness and light are in precious short supply (indeed, the very phrase provokes sniggers). Britain's rulers are more interested in value for money than the value of what money provides. And great cultural institutions such as the BBC have lost their self-confidence.

Melvyn Bragg has had no truck with cultural self-flagellation. Every Thursday for the past 20 years (holidays aside) he has presented a programme called "In Our Time" on BBC Radio 4 that consists of high-minded conversations with three academics. A new book demonstrates the extraordinary range of subjects he has covered. There are the classic high-cultural subjects, such as George Eliot's "Middlemarch", but also plenty on the best that is being thought by scientists and mathematicians as well.

Lord Bragg is a working-class boy who made good thanks to the power of education. His parents were factory workers who saved enough money to buy a pub. Young Melvyn went to university only because his history teacher, a Mr James, pestered his parents to let him stay on in the sixth form. He read history at Wadham College, Oxford, where the master, Maurice Bowra, summed up his criteria for selecting students as "clever boys, interesting boys, pretty boys—no shits". He enjoyed a glorious career at a glorious time for British broadcasting. His "South Bank Show" broke new ground by profiling the likes of Eric Clapton as well as high-cultural icons. He also found time to write three-dozen books. But there were downs as well as ups: the "South Bank Show" was eventually cancelled; his decision to accept a peerage from Tony Blair in 1998 meant he had to stop presenting "Start the

Week", a current-affairs programme; and the only spot he could get for "In Our Time" was the "death slot" at 9am on Thursday.

Lord Bragg seemingly did everything he could to make sure the shift didn't come alive. He insisted that the programme should be "never knowingly relevant" and jumped wildly from the gin craze of the 18th century to the Palaeocene-Eocene thermal maximum. He expected to be out of a job in six months. But the programme went from strength to strength. Two million people now listen to the live broadcast, and another 300,000-400,000 listen to the repeat. Another 3m people in 48 countries make it the BBC's most downloaded weekly podcast. The audience ranges from academics to workers on oil rigs. "I have been in broadcasting for 56 years", says Lord Bragg, "and have never had such a warm and widespread response to a programme."

Its success is testimony to the power of curiosity. Rather than being sick of experts, people are desperate to hear their reports from the frontiers of knowledge. It is also testimony to something deeper. People want to escape the cacophony of daily life, whether the noise of Twitter-storms or the clash of angry politicians. "In Our Time" provides perspective and calm in a troubled age.

Lord Bragg is remarkable but far from unique. Britain has a great ability to churn out people who can spread sweetness and light. Today's champions of the form include Neil MacGregor, Simon Schama and Mary Beard. They stand in a long line that includes Jacob Bronowski, A.J.P. Taylor and Bertrand Russell. Some of this has to do with the emphasis that British education places on fluency. Oxbridge still forces its students to defend their essays in an hour-long grilling. It also has a lot to do with the tortured relationship between class and culture. A remarkable number of the great popularisers are outsiders, who were promoted socially because of their love of learning but never felt fully at home with the hereditary ruling class. Lord Bragg still has the flat northern vowels of his childhood and keeps a house in the town where he grew up, where he regularly sees his old history teacher, now 97.

And now for something completely different

The establishment has been slow to wake up to this comparative advantage. The BBC is paralysed by the fear that it is alienating the young, the "Cs and Ds" and ethnic minorities by lecturing them or appearing snobby. Universities put on fatuous courses, such as cultural studies, in an attempt to remain relevant. The success of "In Our Time" demonstrates how foolish this is. Appetite for knowledge is spread widely throughout society. There is nothing inegalitarian about catering to this curiosity, just as there is nothing egalitarian about doling out dumbed-down drivel.

Successive governments have made the situation worse by giving too much power to managers. In the 1980s, when cultural institutions tended to be sloppily run and self-serving, the managerial revolution had much to be said for it. But over time it became counter-productive. Academics spend their lives producing articles that nobody reads and BBC producers churn out formulaic products aimed at the imaginary median viewer.

Institutions like the BBC need to rediscover their cultural self-confidence. The government needs to broaden its focus from measuring value for money to liberating creativity. Britain's intellectual-cultural complex is not only one of its most under-appreciated assets. It also reminds us that there are better things to think about than political outrage and internet memes. Perhaps Lord Bragg could devote an upcoming "In Our Time" to Matthew Arnold's "Culture and Anarchy". ■



Rape during conflict

The wolves of war

BUKAVU

The Nobel peace prize honours two campaigners against rape in war—an evil that is more lamented than understood

WHEN the women who fill the beds in Panzi hospital heard that Denis Mukwege had won the Nobel peace prize, they got up and started dancing. Laughter and clapping echoed through the hospital wards. Many women are recovering from internal damage caused by rape. One 30-year-old, suffering intermittent bleeding after being raped in a forest, says she was feeling weak that day. “But when I heard that Papa Mukwege had won that prize, I was so happy, I had to stand up and dance. He won it for helping us.”

Dr Mukwege’s co-winner is Nadia Murad, a member of Iraq’s Yazidi minority and a former sex slave of Islamic State (IS). She wrote a book called “The Last Girl” because she wanted to be the last girl in the world with such a story. That these two brave campaigners won the prize says much about changing attitudes. For centuries rape in war was seen as inevitable. But recent years have seen widespread revulsion and a determination to curb it.

None too soon. Since 1999, when Dr Mukwege founded his hospital, perched on a grassy hillside in his hometown of Bukavu in the east of the Democratic Republic of Congo, it has treated over 40,000 survivors of sexual violence. The perpetrators have nearly always gone unpunished. Though many of his staff have decorated

their offices with his portrait, the man himself is modest. A gynaecologist and obstetrician, trained in Burundi and France, he is delighted that the prize will make it harder for his government to claim that the country is at peace. “Rape is used systematically, methodically,” he says. “Women are ashamed and stay silent.”

The endless stream of women, children and even babies with maimed insides has sometimes brought him close to despair. He remembers the helpless rage he felt when an 18-month-old baby was brought in with genitals mangled by rape. After treating her he called 50 men into his office and begged them to go to the village and find the culprits. But the rapists—rebels from one of the region’s several militia groups—had long since melted back into the bush.

Punishing the victim

The doctor blames such atrocities on a culture of impunity. Gloria, a Panzi patient in her twenties, says she was raped by three militiamen on the edge of a mud path. They were celebrating a victory over the national army. The men, each toting a Kalashnikov, grabbed her and three friends as they walked through scrubland. “They beat me, then they laid me on the ground, put a cloth over my head and raped me.

They said if I moved they would shoot. Three of them did it, one after the other,” she says, with startling composure.

When she returned to her village, bleeding heavily, her husband saw she had been raped and abandoned her. She was rejected by most of her neighbours. After three years of sporadic bleeding and acute abdominal pain, some women from her church collected money so she could travel to Dr Mukwege’s clinic. When he examined her, at first she felt “ashamed”. But he was kind and she soon saw him as a friend. “Thanks to him I am still here,” she says.

Dr Mukwege has had to make big sacrifices. He lives “almost as a prisoner”, inside the hospital compound. It is not safe to walk the streets. He survived an assassination attempt in 2012 and fled to Belgium with his family. His former patients rallied to bring him home, writing without reply to Congo’s president, Joseph Kabila, and to the UN’s secretary-general at the time, Ban Ki-moon. Then, he says, his voice cracking, “they started coming to the hospital every Friday to leave \$50 that they had collectively earned by selling fruit and vegetables.” The money was for his air fare. These women survive on less than \$1 a day. “I decided that their sacrifice was greater than mine and so I came back.”

The assassination attempt came soon after the doctor had given a speech at the UN lambasting Congo’s leaders for letting conflict and rape continue. Even now, his government does not feign admiration for him. “We commend a fellow citizen for this honour but have not always agreed with his observations,” the Minister of Information mumbled about his award.

Worldwide, however, awareness of sexual violence in war has risen. Hundreds of ▶

▶ thousands were raped in the 1990s, during the Bosnian war and the Rwandan genocide. The international tribunals set up after those conflicts broke new ground in the prosecution of sex crimes. In 2008 UN Security Council resolution 1820 recognised sexual violence as a tactic of war. In 2014 Angelina Jolie, an actress, and William Hague, then the British foreign secretary, played host to a summit in London on ending wartime rape.

The invisibles

Some types of wartime sexual violence are often still overlooked. Men and boys can also be victims. Charu Lata Hogg, the founder of the All Survivors Project, a charity, says that this issue is “a blind spot in law, policy and humanitarian response”.

In Sri Lanka, for example, where many men suffered sexual violence in army detention during a 26-year civil war that ended in 2009, the law does not recognise male rape, and so does not ban it. In countries where gay sex is illegal, men who have been raped feel not only shame but also fear, in case they are accused of being accomplices to a crime. Few speak up, let alone seek help. So the prevalence of male rape in war is even harder to estimate than that of female rape. According to a study by the UN High Commissioner for Refugees, refugee women in Jordan last year estimated that 30-40% of men from their communities in detention in Syria suffered sexual violence. The problem is starting to be recognised. Cases at the International Criminal Tribunal for the former Yugoslavia (ICTY) included sex crimes against men.

Atrocities against women are more widely acknowledged, bringing support for those, like Dr Mukwege, who deal with their consequences. Whether they are growing less common is hard to say. In absolute terms, they probably are, simply because wars are rarer than they were a generation ago. But whether the number of sex crimes in a typical war is rising or falling is unknown. Data that appear to show an increase may merely reflect improved reporting. There are also inconsistencies in how “sexual violence” is defined; some definitions are limited to penetrative rape, others include shaving women’s heads. And there is huge variation in how likely victims are to report an attack, depending on local customs.

But, it is certain that the problem persists. In South Sudan a UN survey found that 70% of women in civilian camps in Juba had been raped. And, as women in refugee camps in Bangladesh give birth to babies conceived in rape, aid workers are only beginning to grasp the scale of sexual violence, mostly gang rape, during the brutal expulsion of 1m Rohingya people from Myanmar last year.

The idea has caught on that rape is a weapon of war: that commanders order

their men to do it to terrorise populations or to achieve other military objectives. That is sometimes true. Ms Murad’s rapists were following an explicit, written doctrine that is jihadists were free to enslave and “marry” captured infidels. Commanders encouraged this, partly to destroy the Yazidi faith (by killing the men and enslaving the women), and partly as a recruiting tool—join the jihad and gain a sex slave.

Such written orders are vanishingly rare, however. Usually, even when mass rape is clearly being used for strategic ends, such as the “ethnic cleansing” in Bosnia, Darfur, Myanmar and Rwanda, it is fiendishly hard to prove who is to blame.

Rape in war is complex. Perpetrators are not always combatants—at Panzi, for example, over the past ten years, 34% of victims were raped by civilians. Nor is rape always part of a military plan. A commander can prohibit, tolerate or order it. Understand-



ing why it happens should make it easier to prevent it, and to prosecute the culprits.

Not all armies and militias rape. Over a third of the 91 big civil wars in 1980-2012 had no large-scale sexual violence. In El Salvador’s civil war National Liberation Front militiamen very rarely raped and those who did were punished severely. The militias needed civilians for shelter and intelligence, and trained fighters not to outrage them. The otherwise brutal rebel Tamil Tigers in Sri Lanka prohibited sexual abuse. The National Resistance Army in Uganda had a code of conduct noting that “many women are wives or daughters of somebody, somewhere.” Crucially, argues Elisabeth Wood of Yale University, in all these cases, commanders had both the will and the control to enforce such rules.

Some combat groups commit mass rape without clear orders. Some men doubtless do it because, in the fog of war, they can get away with it. But rape in war

can be markedly different from in peacetime. It is usually more violent, sometimes involving sticks or rifles. It is also more likely to be done in public, to maximise humiliation, and to involve many perpetrators. In “Rape during Civil War”, Dara Kay Cohen of Harvard notes that though less than a quarter of reported peacetime rapes are gang rapes, in war the figure is estimated to be three-quarters or more.

Fighters take part in gangrapes to forge bonds with each other, argues Ms Cohen. What they are doing is taboo and dangerous—some contract crippling sexually transmitted diseases from it. Having done something so vile together, they become partners in crime and this helps foster group loyalty. This may be why, as Ms Cohen found, conscripts, who may have been abducted or press-ganged, are more likely to rape than volunteers. They start off with little or no loyalty to the unit. Commanders know this, and so allow or encourage them to commit sexual crimes as a group, knowing that this will bind them together. Armies that switch from voluntary recruitment to the forcible sort, such as the Civil Defence Forces in Sierra Leone, tend to become more sexually violent.

Policymakers need to recognise such early-warning signals. It might also help if commanders were held responsible for tolerating widespread sexual violence, rather than just for ordering it. One insight noted in the debrief notes from the International Criminal Tribunal for the Former Yugoslavia was that it was unhelpful to require investigators to prove that sexual violence was used strategically, because this was all but impossible.

The world has tried to deter wartime rape largely by bringing war leaders to justice. High-profile prosecutions matter, but they cost millions of dollars and often fail. Nearly 20 years after the establishment of the International Criminal Court, it has yet to convict anyone for sexual violence as a war crime. A Congolese warlord was acquitted in June.

Prosecuting perpetrators is seldom the survivors’ priority, either. (Though Ms Murad urges that is commanders face justice.) More worry about food and shelter, says the International Committee of the Red Cross. Rape victims often suffer stigma, social isolation and even, like Gloria, abandonment by their families. They also require protection, because even after war is over, high levels of rape tend to persist.

Dr Mukwege says he has kept going, even through the darkest of times, thanks to his patients’ unrelenting will to carry on. When she limped into his clinic, Gloria half collapsed against a tree in the courtyard. Now she is strong enough to face the future. “When I go back to my community I will walk through the village to show everyone I am alive,” she says. “I’ll show them there is life after rape.” ■



Electronics manufacturing

The great chain of China

SHENZHEN

China's dominance of the electronics supply chain has Westerners worried, but it will be hard to break

THE first floor is all about components: every type of switch, every cable and every screw can be found here, often in bags of thousands. The second floor is filled with circuit boards and small gadgets, from video cameras to headsets. The higher you go, the bigger and more sophisticated the devices get: smartphones, drones, hoverboards. On the top floor, the tenth, a blinding cornucopia of LEDs of every shape and colour assails the eyes.

The SEG Electronics Market (pictured) and similar places in the Huaqiangbei district of Shenzhen, a fast-growing city in southern China, an hour's drive north of Hong Kong, have been described as sweet shops for hardware geeks. But they are better understood as showcases and sales offices for the thousands of factories in the city's hinterland and elsewhere in China. The people at the markets' booths are happy to sell you items in ones or twos, but they prefer to talk to much bigger customers on the phone.

Huaqiangbei's markets are also a perfect symbol of how dominant China has become in the electronics industry. The country is the core of the sector's global supply chain. Chips and other components pour in, mostly from other Asian countries; they are assembled in China; the finished devices are then sent all over the world. China is home to more than half of the world's manufacturing capacity for electronics, estimates Henry Yeung of the

National University of Singapore.

More than half of the world's mobile phones are made in China, along with almost all of the printed circuit boards, the guts of any device. Chinese factories install two-fifths of the world's semiconductors. Of the production facilities operated by Apple's top 200 suppliers, 357 are in China. Just 63 are in America.

This dominance has shot up the political agenda—in particular, in the United States. America's trade deficit with China and unfair Chinese practices, such as the forced transfer of intellectual property and even outright theft, are the main reasons why President Donald Trump has raised tariffs on many Chinese products. But American officials have other reasons for wanting companies to re-route supply chains. Growing strategic rivalry is one worry. And on October 5th the Pentagon warned that not enough attention had been paid to the security of the electronics supply chain. The day before, *Bloomberg BusinessWeek*, a magazine, reported that Chinese agents had managed to implant spy chips on circuit boards used by 30 American firms, including Amazon and Apple. (Both companies have strongly denied the story, although some experts, such as Greg Allen of the Center for a New American Security, a think-tank, say the scenario is plausible.)

Add China's ambitious plan to move up the electronics value chain, called

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“Made in China 2025”, and it is easy to see why America is worried. It was fretting even before Mr Trump came to office. Reporting to his predecessor, Barack Obama, the President's Council of Advisers on Science and Technology found that China's policies to foster its semiconductor industry, for instance, “are distorting markets in ways that undermine innovation...and put US national security at risk”.

The origin of China's dominance lay in cheap labour. In the early 2000s companies in all sorts of industries sent at least some manufacturing to China to stay competitive. Although much production has been automated since, electronics can be labour-intensive even today: components often need to be assembled by hand or taken from one machine to another. Foxconn, Apple's main contract manufacturer, employs 250,000 people in Shenzhen.

Circuit training

In recent years labour costs have gone up—by more than 60% between 2011 and 2016, say some estimates. Vietnamese or Indian workers are far cheaper. But China now has much else to offer. Flying into Shenzhen and taking the subway to Huaqiangbei is a breeze. An ecosystem of firms has sprung up to provide everything from logistics to prototyping. Although high-end components, such as processors and memory chips, must still be imported, most other things can be sourced locally. “The total production cost is still lower than elsewhere,” says Mr Yeung.

Other factors also favour concentration. Shenzhen's ecosystem pulls in more hardware-makers the bigger it gets—just as Silicon Valley's dense network of venture-capital funds, law firms and other service providers has attracted more and more startups. And in contrast to other products such as cars, notes Greg Linden of the Uni- ▶

▶ versity of California, Berkeley, gadgets and their components can easily be flown around the world, meaning that making everything in one place does not entail high transport costs.

The question is whether the forces that have pulled the electronics industry into China can be broken or weakened. To some extent, this has already happened. To offset higher labour costs, and to reduce their reliance on one country, some firms have moved some activity. Most prominently, since 2009 Samsung, the world's biggest smartphone-maker, has shifted most of its production to Vietnam, making the country the biggest exporter of such devices after China (see chart).

America's tariffs on goods made in China are pushing others to follow suit. Firms such as SK Hynix, of South Korea, and Mitsubishi Electric, of Japan, have started moving production back home. Taiwan's Compal Electronics is considering reactivating a Vietnamese factory. Some contract manufacturers, such as Jabil, an American firm, see the trade war as an opportunity: with factories in many countries, they can switch production as conditions change.

In theory the trickle could become a flood if the trade war heats up or worries about supply-chain security intensify. Many factories in China are owned by foreign firms, which could move facilities elsewhere. But in practice the outflow is likely to be limited. China's advantages look too great: Vietnam's infrastructure is far worse; India's bureaucracy makes building a factory and hiring a few thousand people too onerous to bother with.

Similarly, the notion put forth by some in the Trump administration that firms will, under pressure from tariffs and politics, "reshore" much of their manufacturing to America, is an illusion. Companies such as Apple and Foxconn may well build factories in America, to make high-end products or for political reasons. But repatriating assembly and the production of commodity components "would be impossible", says Mr Yeung—not least because of a lack of people willing to do badly paid, repetitive jobs. Most firms will have no choice but to wait things out and pass the cost of tariffs on to their customers if they can. They will also have to invest more in supply-chain security. Happily, the technology for this is improving. For instance, Instrumental, a startup created by a former Apple engineer, uses computer vision to scan circuit boards for signs of tampering as they leave assembly lines.

Some experts have posited the idea of a bifurcation of the electronics supply chain, along with other parts of the information-technology industry such as the infrastructure for mobile networks and even the internet itself. One part would serve the West; the other, China and allied countries.

A complete split seems unlikely: inter-



dependence in the global electronics industry is too strong for that. But recent events have given American firms an incentive to reduce their reliance on Chinese manufacturing. Chinese firms will feel the same way about American technology, given the near-death experience of ZTE, a Chinese maker of telecoms equipment, after the Department of Commerce briefly banned exports to the company, which depends on processors designed in America. A tech cold war is not yet under way. But things are a lot chillier. ■

Social networks

Plus, minus

Google's little-used social network shuts down in disgrace

IT WAS not a good way to go. On October 8th Google said it was closing Google+, a social network that it had launched in 2011. On the face of it, that hardly matters: Google+ is a ghost town. Although the network notionally has hundreds of millions of users, Google itself admits that 90% of visits last less than five seconds. Few will miss it. The internet-search and advertising giant plans to resurrect some version of it for internal use in companies.

Less important than the fact of its closure, though, was the manner. The announcement came hours after the *Wall Street Journal* revealed that, in March, Google had discovered a bug in Google+'s code. Information that around half a million users had marked as private was nevertheless made visible to their friends and through them to more than 400 third-party apps.

Both the nature of the bug and its timing are significant. The bug has echoes of the way in which Cambridge Analytica, a British political-advertising firm, was able to illicitly harvest the data of more than

50m Facebook users in 2014. Those data were used to target advertisements in America's presidential election and Britain's referendum on leaving the European Union in 2016. When the data-harvesting was exposed, also in March, the resulting stink led to Mark Zuckerberg, Facebook's boss, being summoned before America's Congress. Cambridge Analytica shut down in May. (Its staff have since set up a new firm, called Auspex International.)

Internal documents show that Google's lawyers were well aware of the risks of admitting to their own bug in the midst of the Cambridge Analytica furore. Disclosing it, they wrote, could invite "immediate regulatory interest", and lead to Google "coming into the spotlight alongside or even instead of Facebook". Sundar Pichai, Google's chief executive, might even have been dragged before legislators along with Facebook's Mr Zuckerberg.

There are differences between Google's case and Facebook's. Only a hundredth as many people were affected. In a blog post Google said that, as far as it could tell, nobody else had spotted the bug and no data had actually leaked (although, less reassuringly, the firm keeps only two weeks of log data at any one time). That meant that, according to both the law and Google's internal guidelines, there was no need to do anything other than fix the problem and stay mum.

That has not silenced claims of a cover-up: at least one lawsuit has already been filed. Perhaps to soften such accusations, the rest of the blog post talked at length about better privacy protections for users of Google's other products. The firm plans to stop many third-party developers from reading text messages and call logs on smartphones running its Android operating system, for instance, and to reduce the number of developers allowed to develop add-ons to Gmail, a free email service that shows advertisements to users based on the content of their messages.

Tightening access to personal data should help make accidental exposures less likely in future. At the same time, regulators are picking up their cudgels. The EU's General Data Protection Regulation came into force in May, two months after Google found its bug; it requires firms to disclose data breaches within 72 hours or face steep fines. California has passed a data-privacy law of its own, helped along by the Cambridge Analytica affair.

The internet giants seem to have accepted tighter regulations as inevitable. Their objective now is to try to shape them as best they can. Several big computing firms, including Google and Facebook, are lobbying America's federal government over national privacy rules, to avoid having to comply with a patchwork of local state codes. The foxes have decided their best bet is to try to help build the henhouse. ■

PURE INGENUITY



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Ryanair and trade unions

Labour pains

DUBLIN

Skill shortages are empowering transport unions in Europe

RUNNING an airline used to be a sure-fire way to lose money. Warren Buffett once joked that the best thing a clairvoyant could have done for investors in 1903 was to shoot down Orville Wright. Michael O'Leary of Ryanair has done his best to change that. By stripping away benefits and inefficient working practices that pilots and cabin crew had cherished for decades, he has turned the Irish airline into Europe's biggest and most profitable. But now the workers, with many others in the transport industry, are fighting back.

Ryanair is feeling this new assertiveness keenly. Last December it was forced to recognise unions for the first time after a shortage of pilots had forced it to cancel 20,000 flights in the autumn. This summer it was hit by a long series of pilot and cabin-crew strikes. At one point in August, it had to cancel a sixth of its flights. In September a union-led campaign against the re-election of David Bonderman as Ryanair's chairman was defeated by a much thinner margin than Mr O'Leary expected. On October 1st, blaming the strikes, the airline cut its profit forecast. Its share price fell by 13%.

Transport unions are throwing their weight about elsewhere, too. Air France-KLM's shares have fallen by 38% since January, largely because unions have refused to compromise on pay and conditions. French railways were paralysed this spring by striking train drivers and conductors. And a scarcity of lorry drivers has resulted in pay increases of 30%-plus for some American and European truckers this year.

Skill shortages partly explain unions' increased willingness to flex their muscles, says Dave Emerson of Bain & Company, a consultancy. A decade on from the last recession and after several years of above-average increases in air, rail and road traffic, all three industries are running out of spare pilots and drivers. Training new ones is slow and expensive, costing as much as \$160,000 for an airline pilot and \$500,000 for an air-traffic controller. Less-well-paid workers, such as cabin crew and lorry drivers, have been lured away by job openings in more family-friendly industries.

Transport unions also feel that the political winds are in their favour. On October 2nd Belgium, Denmark, France, Germany, Luxembourg and the Netherlands announced their support for stricter labour laws in aviation, including bans on Ryanair's practice of employing workers based outside Ireland on stingier Irish contracts.



O'Leary, we're weary

But although Ryanair now recognises unions, it is not taking negotiations with them seriously, says Philip von Schöppenthau of the European Cockpit Association, a group of pilot unions. One point of contention is its refusal to talk to union officials who still work for other airlines. Mr O'Leary fears his rivals' staff want to eliminate Ryanair's competitive advantage by imposing their own inefficient working practices. This angers the unions, which claim the right to pick their own representatives.

Ryanair will have a hard time making them back down, says Philipp Goedeck of Avinomics, a consultancy. Instead of recognising one union for most of its workers in each country, as in Ireland, it is dealing with lots. That provokes competition between unions for the biggest pay rises. (At Lufthansa inter-union relations once got so bad that signs saying "no pilots allowed" appeared in the canteen.)

Some executives instead ascribe unions' greater militancy to worries about losing jobs to drones and self-driving vehicles. They accuse union officials of trying to set existing practices in cement. In America the Teamsters, a union for lorry drivers, lobbies against self-driving trucks on public roads. Air-traffic controllers have resisted new technology and working practices for decades. Eurocontrol, which co-ordinates air-traffic control in Europe, forecasts that the resulting lack of capacity will increase flight delays by 53% this year. These delays and consequent compensation will hit Ryanair's profits harder than continued pilot and cabin-crew strikes, says Gerald Khoo of Liberum, a bank.

Alas for flyers, delays will get worse until policymakers are annoyed enough to overrule the unions, says David McMillan of the ATM Policy Institute, a think-tank. Transport unions are getting better at helping their members. But they may be getting better at hurting consumers too. ■

Unilever

Sour taste

The maker of Marmite stays in Britain

FEW companies can beat Unilever at marketing stuff, whether a bar of Dove soap, a box of Knorr bouillon cubes or a jar of Marmite savoury spread. Its bosses have proved rather less successful at pitching to their own investors. On October 5th Unilever's board scrapped its plans to quit Britain in favour of the Netherlands after its own shareholders had balked at the move. There is enough egg on management's faces to blend a jumbo tub of Hellmann's mayonnaise.

The plan to simplify Unilever's Anglo-Dutch structure was meant to be the parting triumph of Paul Polman, its chief executive for nearly a decade, who is expected to retire soon. Scrapping the firm's dual holding companies, the legacy of the merger of the Netherlands' Margarine Unie and Britain's soapmaking Lever Brothers in 1929, would make the company more agile, its bosses had boasted. Rotterdam was pitched as the company's new home in March, after months of boardroom deliberations. Its headquarters in London would be ditched.

Unilever denied that its proposed move had anything to do with Brexit, or with the gentler brand of capitalism practised in the Netherlands. Mr Polman has been a proponent of engaging all "stakeholders" when doing business, not merely short-termist shareholders, as Anglo-Saxon types are wont to do. An unwanted approach in February 2017 by Kraft Heinz, an American food manufacturer controlled by Warren Buffett's Berkshire Hathaway and 3G Capital, a private-equity firm, highlighted the advantages (for management) of being based in a place where such takeovers ▶▶

Magnum force

Largest FTSE 100 companies, October 9th 2018
By market value, £bn



Source: Thomson Reuters

▶ could be stymied more easily.

To shareholders the move to Rotterdam was Marmite: some loved it, others hated it. Some British fund managers fretted that a fully Dutch Unilever would be shut out of the FTSE 100 index of companies in which they may invest (see chart, previous page). Why vote for a proposal that would force them to sell their shares in a well-run company? Mr Polman acknowledged this was a problem but seemed to think the investors should vote against their own interests for the company's greater good.

The main consequence of keeping the current convoluted structure seems to be

that it will be trickier to issue new shares to make a large purchase, or to spin off a unit. Neither is imminent. And sceptics point out that the dual structure was no hurdle to Unilever reshaping itself after Kraft Heinz's approach, notably by selling its margarine business to a private-equity fund for \$8bn in late 2017.

Unilever's next move is unclear. The Netherlands has gone out of its way to get it to go Dutch. Mark Rutte, a former Unilever man turned prime minister, had even agreed to change the tax code in its favour. Plenty think the Rotterdam caper was driven by the personal preferences of Mr Pol-

man and Unilever's chairman, Marijn Dekkers, who is also Dutch.

Choosing London instead would probably irritate Dutch shareholders, who would argue they would be forced to sell shares in much the same way as their British counterparts declined to do. A compromise will have to be found. Royal Dutch Shell, another Anglo-Dutch group, hedged itself in 2005 by sending its headquarters to The Hague but keeping its primary listing in London. Unilever is no stranger to fudge, not least in its Ben & Jerry's ice creams. It will have to create a similar confection for its aggrieved investors. ■

Bartleby | Minds do matter

There is more acceptance of mental-health issues at work

HISTORY is full of jobs that took an immense physical toll on employees, from miners and construction workers through to those who suffered "phossy jaw" (a destruction of the jawbone) in the match factories of the late 19th and early 20th centuries. But it is only in the past couple of decades that workers' mental health has become more widely discussed and understood. The first World Mental Health Day was organised in 1992; the latest was marked on October 10th. Charity campaigns, like "time to change" in Britain, try to remove the stigma associated with mental-health problems.

Those problems are widespread. A recent review of studies in Europe found that 38% of the EU's population suffers from a mental disorder (on a broad definition, ranging from anxiety to drug dependence) each year. As well as severe distress, this inevitably leads to absenteeism and poor performance. The World Health Organisation (WHO) estimates that mental-health troubles cost the global economy \$1trn a year in lost output.

In a survey of American workers, 63% of respondents reported that stress in the workplace had a significant impact on their mental and behavioural health. According to a study by the Confederation of British Industry, which represents big businesses, 40% of employers in 2017 reported that more than 5% of their workforce had a mental-health issue. That was nearly a fourfold increase on a similar survey conducted in 2013.

This higher figure may actually be an encouraging sign. As the stigma surrounding mental illness fades, more people may be willing to admit to it. Society has certainly come a long way in its treatment of mental health. When Bartleby's father suffered from depression after losing out from a job reshuffle in the 1960s,



the doctors suggested electric-shock treatment. Bartleby's grandmother suffered from severe post-natal depression in the 1920s; she was placed in a mental home and never saw her child again.

Nowadays treatment is much more likely to be associated with pharmaceuticals (though admittedly this can bring its own problems, notably the risk of addiction) and with therapy. Workers are more inclined to accept help if they feel the treatment regime will be considerate. "Cognitive behavioural therapy", which teaches people to bypass unhelpful thoughts, has few negative connotations.

The business world has also made great strides in dealing with mental health. A 2017 report by Business in the Community, a British charity, for example, found that 53% of workers said they felt comfortable about discussing mental-health issues at work. But plenty of progress still needs to be made. Only 13% of those with a problem felt they would be able to discuss it with their line manager.

Zain Sikafi, a British doctor, has set up Mynurva, an online therapy service that schedules appointments after 5pm and at

weekends, so that people can get help outside office hours. He says that people are reluctant to tell their friends and colleagues that they need therapy. That is why Mynurva has no app: it would be permanently visible on users' phones. One approach that might encourage greater understanding, Dr Sikafi suggests, would be a change of terminology. Terms like "mental illness" are still associated with some severe conditions.

Some companies have a long-hours culture; others insist on near-continuous contact with their employees through their smartphones. That makes it very hard for workers to escape stress and to devote their attention to their families or to enjoy activities outside work.

On the other hand, flexitime has become more common, home working may create a calmer environment, and it is more acceptable for men to take time off for family events. And a reticence to talk about mental health in front of the boss may be unnecessary. Executives are people, too. A study by BUPA, a health insurer, of global business leaders found that 64% had suffered a mental-health issue at some point. That ought to make them sympathetic to staff in the same situation.

In theory, a more humane approach should be good for managers and workers for other reasons as well. The WHO says that "workplaces that promote mental health and support people with mental disorders are more likely to reduce absenteeism, increase productivity and benefit from associated economic gains." Just the ability to talk freely about stress or anxiety may reduce the problem. Perhaps in future workers will be no more reluctant to reveal a mental condition than to report a broken bone or a dose of the flu.

Food delivery in India

Free lunch

MUMBAI

Investors are pouring money into delivery apps—and for now, losing it

OF THE thousands of young men trying to make their fortunes in Mumbai, India's biggest city, Abdul Haq Ansari is doing better than most. Wearing a black and orange jacket and carrying a cooler bag, he climbs aboard his battered Royal Enfield motorbike and sets off towards a local restaurant. In the past month, he has started making deliveries for Swiggy, a fast-growing food-ordering app, around Bandra, a hip suburb popular with Bollywood stars and cricketers. Delivering meals is "very good for money", he enthuses. Working for five or six hours an evening, Mr Ansari makes about 20,000 rupees a month (\$270), enough to put him into the top 20% of Indian earners. And because this is his second job—Mr Ansari is also a personal trainer—he is in fact well into the top 10%.

India's urban middle classes have long expected to be able to get anything delivered to their doors by a horde of underemployed young men. Mumbai's "dubbawallahs", who deliver thousands of lunch boxes to offices each day, have been the subject of earnest studies by management consultants. But now techies hope they can beat them at the same game. Over the past six months, food delivery has taken off, thanks to huge investments in app-based logistics firms.

Swiggy has raised \$465m in total, much of it from Naspers, a South African internet firm which also owns a large share of Tencent, one of China's online titans. It now claims to "partner with" some 70,000 drivers and deliver 700,000 meals a day. Its main competitors include Zomato, which has raised \$200m from Alibaba, another huge Chinese e-commerce firm, and FoodPanda, which is owned by Ola, an Indian ride-sharing app with many foreign investors. Dozens more are trying to get in, notably Uber, an American ride-hailing giant.

Investors are clearly licking their lips. The trouble is that for now they are mostly tasting losses. Take Mr Ansari: for each delivery, he makes between 40 and 120 rupees, depending on the time of day and distance. Yet most customers pay less than that; few meals, he says, cost more than 200 rupees. Restaurant prices are higher. The apps also offer a plethora of cheap "exclusive" specials with free delivery, desserts and drinks. The gap is made up by the firms. Indian newspapers estimate that Swiggy's losses may be as high as \$20m a month (the company publishes no such numbers). Zomato lost around 1bn rupees

Coffee wars

Full of beans

Competition is hotting up in the coffee industry

IN 1934, in the Italian city of Trieste, Francesco Illy came up with a way to package coffee in pressurised containers that kept it fresh. In 1935 he invented the first automatic coffee machine. In 1974 Illy, the company he founded, became the first to sell a kind of coffee pod—single servings of ground, tamped beans that produced espresso anywhere, any time.

Aluminium capsules, the successors of those pods, have become a fiercely contested battleground for the world's biggest coffee companies, notably Nestlé, a Swiss food-and-drink giant, and JAB Holdings, an investment firm intent on building a coffee empire. On October 8th, in the latest sign that the coffee wars are hotting up, Illy signed a licensing deal for capsules with JAB, blending Illy's coffee and cachet with JAB's commercial clout.

Two decades ago as many as 20 substantial companies competed in the retail-coffee trade, says Jeffrey Young of

Allegra World Coffee Portal, a consulting firm. In the past few years the market has consolidated—and at a faster pace in the past year or so.

In 2015 JAB bought Keurig, America's biggest coffee-pod system, for \$13.9bn. It has also swallowed Jacobs Douwe Egberts, Espresso House and Peet's Coffee. Nestlé signed a \$7bn deal in May with Starbucks to distribute the ubiquitous chain's products. Today JAB and Nestlé together control about a third of the market for fresh and instant coffee, which Euromonitor International, a research firm, estimates to be worth \$83bn a year.

Capsules—an expensive but convenient way of making coffee—have been the market's fastest-growing area in recent years. The pace has slowed recently, notably in America where the market has matured, but Europe is still bubbling away. Nespresso, owned by Nestlé, leads in Europe but has failed to make inroads in America. Keurig got there first, offering a variety of brands, and selling them through supermarkets. Until recently Nespresso only sold its products in its own shops and through its website. Nestlé's acquisition in 2017 of a majority stake in Blue Bottle Coffee, a hip Californian brand, is a sign of its eagerness to boost its presence in America.

Despite JAB's and Nestlé's heft, others are keen to compete. Coca-Cola bought Costa, a British chain, in September for £3.9bn (\$5bn). This month Lavazza, another Italian coffee-maker, bought Mars's coffee business, including its Flavia and Klix vending systems. But—as for many other products—Amazon is the great unknown. Sales of hot drinks have been slow to take off online. As capsules' popularity grows that may change, says Matthew Barry of Euromonitor. Amazon's purchase of Whole Foods, a trendy grocer, in 2017 brought with it Allegro, another fancy coffee brand. A bigger battle may be brewing.



The taste of the 1930s

in the year to March.

Could food delivery pay off? India's economy is growing at 7-8% a year, and with it the number of people able to afford takeaways. The number with smartphones and access to the internet is growing even faster. So profits may yet come—but probably not fast enough for every investor. For one thing the middle class is still relatively small, as well as rather stingy. If Swiggy and others stop subsidising their customers, they may stop buying. And if

profits do arrive there is nothing to stop firms such as Amazon, which already has a huge distribution network, jumping in too.

India has been here before. In 2016 Zomato stopped serving several cities after making big losses. The same year Ola closed its "Ola Cafe" service. This wave of investment is more ambitious. The risk, jokes one investor, is that it may prove to be little more than a free gift "from pensioners in California to the Indian middle class". And, for now at least, to the drivers. ■

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Schumpeter | Under the microscope

The notion that the City of London needs to shrink is gathering momentum. It is mistaken



MEASURES of the attractiveness of global financial centres, rough and ready as they are, are consistent: only New York can vie with London for the title of top dog. Financial firms from around the world are drawn to the British capital; the assets in the country's financial system are ten times its GDP. Yet little of the Square Mile's bountiful wealth seems to trickle out. The gap between Britain's richest and poorest parts is perhaps the biggest in Europe. Britain's productivity growth is woeful.

Many Britons suspect that the City succeeds at everyone else's expense. That view is decades old, but the financial crisis of 2007-08 intensified it greatly. The crisis brought the economy to its knees; the state spent £140bn (\$220bn) bailing out banks. Public services have been squeezed in the years since; living standards have stagnated. Yet bankers still earn royal ransoms. As Britain prepares to fall out of the European Union's single market after Brexit—thereby weakening the City's appeal—some wonder whether it is time to rethink Britain's economic model. Jeremy Corbyn, the leader of the opposition Labour Party, boasts that he is a “threat” to bankers, who, he says, “should not run our country”. Now a new book by Nicholas Shaxson, a writer (and a former contributor to *The Economist*), in effect argues that Britain would indeed be better off with a smaller financial sector.

Mr Shaxson provocatively compares Britain's situation to that of Angola, a country where oil makes up over 95% of exports. Oil should bring widespread prosperity to Angola, but it does not. Brainy Angolans flock to the oilfields rather than to the civil service or health care. Floods of foreign capital raise the value of the currency, making non-oil industries uncompetitive. Angola, in wonk-speak, suffers from a “resource curse”, in which plentiful natural resources lead to worse economic growth. Mr Shaxson worries that Britain suffers from something similar, with financial services playing the role of oil.

The comparison is unwarranted. Since the City's deregulatory “Big Bang” of 1986, GDP per person has grown faster in Britain than the average for rich countries. The claim that Britain's financial industry sucks the best people from elsewhere is dubious. The share of economic output accounted for by finance is much higher than the share of university graduates in the sector.

True, some of these brainy folk do things that could fairly be

described as socially useless: who really benefits from speculation on a derivative which is the fifth-cousin-once-removed of an interest rate? But many in the industry have studied hard, or moved to London from abroad, precisely to excel in finance. If their jobs left the City, they would surely follow them rather than set up an engineering firm in the provinces.

It is also hard to firm up Mr Shaxson's claim that Britain's large financial sector makes other industries uncompetitive. True, the City does encourage foreign investment in British firms and property. That pushes up both wages and rents in London, and probably the pound too, making it harder for other, price-sensitive export industries to thrive. But dynamic industries squeeze out sluggish ones everywhere: try being a steel-processor in the Bay Area. And the City is not to blame for some deep-rooted British shortcomings. The trade-weighted value of sterling has been declining for 50 years. Britain's manufacturing exports as a share of the global total have been falling since the 1860s, long before the City became as powerful as it is today. Manufacturing's share of output began falling in the 1950s, when financial regulation was extremely strict. Governments have tried countless times to arrest this decline, without success.

Against these uncertain costs can be set more certain benefits. Surveys suggest that Britain's small and medium-sized enterprises find it easier to get hold of finance than the average European firm. Britain's burgeoning peer-to-peer lenders help. London has a vibrant fintech scene partly because of proximity to the City's pools of expertise and money.

Britain runs a large overall trade deficit but last year the surplus in financial services was 3% of GDP. From that, some may conclude that Britain is over-reliant on finance. But it may simply be a sign of strength. Nor, despite appearances, is finance confined to the City. Two-thirds of its jobs are outside London. Finance also contributes around a tenth of Britain's total tax take.

Monopoly money

That reliance on finance can cause trouble is not in doubt. The crisis of 2007-08 is Exhibit A. Another worry is that an oversized financial sector has turbocharged the recent trend across rich countries for industries to be dominated by ever fewer big companies. Investment bankers get juicy fees when firms merge, so encourage them to do so. Relative to its economy, Britain sees 50% more mergers and acquisitions than America, where the financial sector is less powerful. Finance may play some part in Britain's wider competition problem.

But in preventing both crises and monopolies, regulation is a better way forward than shrinking finance. Banks must already hold more equity than they did before the crisis. By next year they must put a “ring-fence” between retail and investment banking. Supervisors could go further—demanding yet more capital or doing more to discourage frothy property lending. Tightening anti-trust policy, meanwhile, would help to ensure that mergers did more good than harm.

There is no need to be “sizeist”, in other words. Finance is big in Britain because Britain is good at it. Mr Shaxson is right that parts of finance are socially useless. He is also right that the City is too welcoming to dirty money (see Finance section). Nevertheless, forcing finance to leave Britain is the road to a smaller economy and less tax revenue for the exchequer. Especially with Brexit looming, running down a successful commercial cluster looks like folly. ■



The world economy

Pulling ahead

Global growth is slowing, but booming America stands out

IT HAS been a nervy few days for financial markets. A sell-off in bond markets, prompted by monetary tightening in America, this week infected global stockmarkets, too. The S&P 500 share-price index fell by over 3% on October 10th, its worst day in eight months. Markets in Shanghai hit their lowest level for nearly four years the next day; those in Japan and Hong Kong closed around 3.5% lower.

At first glance, the sell-off seems odd. The world economy is still growing briskly enough: this week the IMF only slightly trimmed its forecast for world GDP growth for 2018, from 3.9% to 3.7%. But investors are right to fret. Whereas acceleration was syn-

chronised across much of the world in 2017, the global economy's expansion now looks increasingly unbalanced.

Two divides stand out. The first is between emerging markets, which are suffering from particularly volatile financial conditions, and advanced economies. The cause of this divergence is a strong dollar, which is making emerging markets' debts that are denominated in the currency costlier to service. The latest casualty is Pakistan. On October 8th it announced that it would seek an IMF bail-out, which is expected to amount to \$12bn. It joins the ranks of other emerging markets in distress, notably Argentina, which has negotiated a record \$57bn credit line from the IMF, and Turkey.

Sustained falls in emerging-market currencies and stocks have been painful for investors. Several countries have raised interest rates to stem capital outflows. Yet the damage to the real economy has for the most part been confined to those with large current-account deficits, such as Argentina. From a global perspective, the bigger worry is China. Authorities there are trying to reduce leverage in the financial system at the same time as American tariffs are squeezing their exports (see next story). The currency is under pressure; growth expectations are being lowered.

The second divide exists within the ranks of advanced economies. Rich coun-

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tries seem to be gently slowing, with one big exception: America. There, growth has sped up dramatically, exceeding an annualised rate of 4% in the second quarter of 2018. America is the only large advanced economy in which the IMF projects activity will expand more quickly this year than it did last year.

This acceleration is because of President Donald Trump's tax cuts. In September the unemployment rate fell to 3.7%, the lowest since 1969; wage growth is slowly but surely rising. Rampant demand is pushing up interest rates. The Federal Reserve has raised short-term rates by two percentage points since it started tightening monetary policy in 2015. This week Mr Trump described the Fed's policy as "crazy". The yield on ten-year Treasury bonds has risen by more than in most other rich countries (see chart). It now stands at over 3.2%, higher than at any time since 2011.

America first

These different growth paths could yet separate further, because many of the immediate economic risks threaten countries other than America. One emanates from Italy, where bond yields are also rising rapidly—and not because of a robust economy. Instead, an extravagant budget put forward by its populist coalition government has sparked a confrontation with the European Commission and reignited fears about the sustainability of the country's huge public-debt burden. The spread between yields on Italian and German ten-year bonds now stands at around three percentage points, its widest in over five years. Those rises will chill the Italian economy. Rising yields have not so far spread beyond Italy's borders, but further increases could mean that crisis engulfs the euro zone again. Such fears will do no fa- ▶▶

Each at its own pace

Ten-year government-bond yields
Percentage-point change since January 1st 2018



Source: Thomson Reuters

► vours to European business confidence, which has already softened this year.

Another threat is a rising oil price. In September the price of Brent crude surpassed \$80 per barrel for the first time since 2014, driven in part by falling Venezuelan supply and the prospect of American sanctions on Iran. It now stands at around \$82. Costly fuel used to threaten the American economy. Today, however, it spurs investment in shale rigs. That gives America a natural hedge against oil-price shocks, even though, in the short term, limited pipeline capacity might mean investment responds only slowly.

Finally, there is Mr Trump's trade war. America will eventually suffer from the distortive effects of rising tariffs, but it is not all that dependent on trade to fuel demand in the short term. Forecasts of the effect of existing tariffs on American growth and inflation predict only a small impact. The result is that the trade war so far also looks

like an asymmetric shock—certainly as far as China is concerned.

The danger is that America's outperformance pushes the dollar even higher, leading to more volatility in global finance and crimping growth in emerging markets. Yet America's boom will not last for ever. Tax cuts will no longer provide incremental stimulus after 2019. Some forecasters fret that an end to the largesse, together with higher interest rates, may be sufficient to tip the country into recession by 2020. Analysts expect America's economy, with its ageing population, to expand by less than 2% a year in the long run. That suggests that, unless productivity surges, a slowdown must eventually come.

The question then is whether the rest of the world can withstand, let alone make up for, an eventual slowdown in America. Not long ago, the consensus may have been that it could cope. Now there is more to worry about. ■

Chinese economy

Feeling humbled

SUZHOU

China is the only major country shifting to looser monetary policy

WHEN Wang Xianchen, a Chinese official in the early 1500s, tired of the scheming of imperial politics, he returned to his home in the southern city of Suzhou for a simpler life. He planted gnarled trees and built up rocky islets, creating what he called the "Humble Administrator's Garden", a fine place for tranquil contemplation. His garden remains stunning. But its

tranquillity is long gone. During the first week of October, China's National Day holiday, some 30,000 people walked over its stone arch bridges every day, with queues to get in stretching around the block. They were among the 726m visitors to domestic tourist sites during the week, a record and a rise of 9% on last year's figure. China's present-day administrators, less humble, touted this as proof of the economy's resilience despite a growing catalogue of concerns.

The backdrop certainly looks ominous. The trade war with America is heating up. In a speech on October 4th, Mike Pence, the vice-president, accused China of economic aggression and vowed that America would "not stand down". Its tariffs are just starting to bite: the biggest round so far, covering \$200bn-worth of Chinese imports, came into effect in September and will be ratcheted up at the start of 2019. The troubles for China could easily spread. The Trump administration has indicated that it wants to stop other big economies, including Japan and the European Union, from negotiating trade deals with China.

Domestically, confidence has taken a battering. The CSI 300 index, a gauge of the biggest Chinese equities, is down by 29% since January, putting it among the world's worst-performing markets this year. Efforts to stabilise debt levels and to crack down on shadow banking have drained liquidity

from stocks. Many local investors are also nervous about the direction of Chinese politics. President Xi Jinping's recent pledge to make state-owned companies "stronger, better and bigger" reinforced the impression that the government is turning against entrepreneurs.

The yuan is also under pressure. It is down by nearly 10% against the dollar since the start of February. Even if that echoes other emerging-market currencies, it risks adding fuel to the trade war. Steven Mnuchin, America's treasury secretary, warned China against competitive devaluations in an interview with the *Financial Times* on October 10th. China has in fact been trying to slow the yuan's slide, worried that weakness might spur capital outflows. A currency trader with a major foreign bank in Shanghai says that a regulator scolded his team last month for not doing more to support the yuan. As is common when sentiment is fragile in China, propaganda authorities have ordered local media to make their reporting about the economy more positive. Hence the extensive coverage of the strong tourism figures during the National Day holiday.

The government is betraying some jitters itself. China is now the only major economy that is shifting to looser monetary policy. On October 7th it reduced the amount of money that banks are required to hold in reserve, the fourth such cut this year. That freed up about 750bn yuan (\$108bn) for extra lending. The central bank has yet to lower benchmark interest rates, but it has guided bond yields down by about a percentage point since January (see chart).

Fiscal policy is also set to provide more of a boost. On October 8th the State Council, or cabinet, announced that it would give exporters bigger tax rebates and also ►►

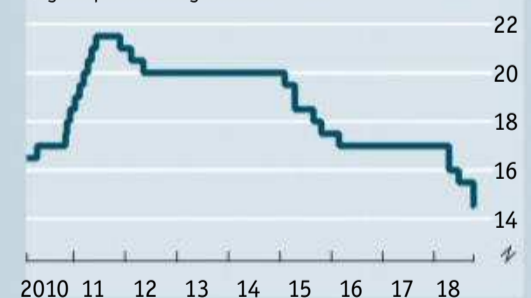


A refuge from the trade war

Down a notch

China, interest rates, %

Deposit reserve-requirement ratio
Large deposit-taking financial institutions



Five-year yield to maturity of
medium-term notes (AAA-rated bonds)



Source: Wind Info

called on municipal officials to accelerate their investment plans, an important signal in China's governance system.

If officials thought that these various steps would change the tide of investors' opinion, they were mistaken. Stocks dropped sharply when trading resumed after the holiday. The exchange rate slid towards 7 yuan per dollar, a level it has not breached in more than a decade. Partly, these moves reflected China's catch-up with global markets after its week off. But they also pointed to a deeper truth about the policy easing: that it has been tentative.

Having made some progress cleaning

up the financial system, the government does not want to erase its gains. "We must avoid flooding the economy with a strong stimulus," Premier Li Keqiang said at a recent cabinet meeting. In real terms, bond yields are a percentage point higher than in late 2016, when the government was focused on revving up growth. A campaign to close loopholes in tax collection has hit small firms especially hard. At the same time officials have continued to limit borrowing by the most indebted companies.

The restraint makes sense. China's economy might be slowing but the situation is far from dire. A big stimulus when

growth is still running at about 6.5% year on year would be an alarming over-reaction. And it is easy to exaggerate the gloom. Some noted that the 9% rise in visitor numbers over the National Day holiday marked the first time in a decade that domestic tourism had increased at less than a double-digit rate. Yet popular destinations can scarcely handle much more. At the Humble Administrator's Garden it was impossible to take pictures without dozens of other people in them. A few daring visitors seeking the illusion of solitude instead climbed onto the grey-tiled roofs of its covered walkways. ■

Buttonwood | The long and short of it

When the case for long-term investment makes sense—and when it doesn't

ONE LUNCHTIME around 1960 a professor proposed a wager to a colleague. Flip a coin and call "heads" or "tails". If you call right, you win \$200. If you call wrong, you pay \$100. This is a favourable bet for anyone who would take it. Even so, his colleague refused. He would feel the loss of \$100 more than the gain of \$200. But he would be happy, he said, to take 100 such bets.

The professor who offered the bet, Paul Samuelson, understood why it might be refused. A person's capacity for risk could no more be changed than his nose, he once said. But he was irked by his colleague's willingness to take 100 such wagers. Yes, the likelihood of losing money after that many tosses of the coin is vanishingly small. But someone who takes very many bets is also exposed to a small chance of far bigger loss. A lot of bets, reasoned Samuelson, were no safer than a single bet.

This lunchtime wager was of more than academic interest. It drew the battle lines in a debate on the merits of long-termism. Samuelson challenged the conventional wisdom that his colleague embodied. In later work, he used the bet as a parable. He showed that, under certain conditions, investors should keep the same fraction of their portfolios in risky stocks whether they are investing for one month or a hundred months. But what Samuelson's logic assumed does not always hold. There are cases where a long-term horizon works in investors' favour.

To understand the debate, start with the law of large numbers. It means that the more often a favourable gamble is repeated, the more likely it is that the person who takes it comes out ahead. Though a casino may lose on a single spin of the roulette wheel, over a large number of spins its profits are determined by the



slight advantage in odds (the "house edge") it enjoys. But a casino that would take a hundred \$100 bets would not refuse a single bet of the same size. That was part of Samuelson's beef. If his colleague dislikes a single bet, after 99 bets he should refuse the 100th. By this logic he should also refuse the 99th bet, after 98 bets. And so on until all bets are spurned.

Clouds on the horizon

Only a naive reading of the law of large numbers would support a belief that risk is diminished by more bets, said Samuelson. The scale of potential losses rises with the number of bets. "If it hurts much to lose \$100," he wrote, "it must certainly hurt to lose 100 x \$100." Similarly, it is foolish to believe that by holding stocks for the long haul—taking multiple bets on them—you are sure to come out ahead. It is true that stocks have usually yielded higher returns than bonds or cash over a long period. But there is no guarantee they will always do so. Indeed if stock prices follow a "random walk" (ie, an erratic and unpredictable path), long-term investing holds no advantage, said Samuelson.

This logic begins to fray if you relax the random-walk assumption. Stock prices appear to fluctuate around a discernible trend; they have a tendency, albeit weak, to revert to that trend over very long horizons. That means stocks are somewhat predictable. If they go up a long way, given enough time they are likely to fall, and vice versa. In that case, more nervous sorts of investors are able to bear a higher exposure to stocks in the long run than they would be able to in the short run.

Samuelson's reasoning also assumes that people's taste for risk does not vary with how rich or poor they are. In reality, attitudes change when a target level of wealth is within reach (say, to pay for retirement or a child's education) or when outright poverty looms. When such extremes are far off, it is rational to take on more risk than when they are close. The calculus also changes with a broader reckoning of wealth. Young people, with decades of work ahead, hold most of their wealth in "human capital", their skills and abilities. This sort of wealth is a hedge against riskier kinds of financial wealth. Indeed the more stable a person's career earnings are, the greater the hedge. It follows that young people should hold more of their wealth in risky stocks than people who are close to retirement.

Samuelson vigorously disputed the dogma of long-termism, which says that the riskiness of stocks diminishes as time passes. It doesn't. That is why long-dated options to insure against falling stocks are dearer than short-dated ones. The odds of winning favour risk-takers over time. But they are exposed to big losses in the times when they lose. Still, it would also be dogmatic to say that time horizon does not matter. It does—in some circumstances. What Samuelson showed is that it matters less than commonly thought.

Human capital

A motivational metaphor

Two new rankings show which countries are raising the most productive humans

DESPITE their dour reputation, economists frequently play with metaphor and simile, just like literary folk. One familiar example is “human capital”, as Deirdre McCloskey of the University of Illinois has pointed out. Economists have been likening knowledge, skill and stamina to physical capital, such as plant and equipment, since Adam Smith, who counted “the acquired and useful abilities” of a country’s people as one of several kinds of fixed capital, alongside “useful machines” and “profitable buildings”.

But unlike poets, economists prefer to quantify their analogies—to measure whether thou art 15% or 20% more lovely and more temperate. In that spirit, the World Bank this week unveiled a new measure of human capital for 157 countries. Its index combines five indicators of health and education (including the chances of dying before the age of five and between the ages of 15 to 60, the chances of stunted growth, the years of education an average child will complete by age 18, and the score they can expect on school tests) to measure how much human capital a person born today is likely to accumulate. It follows a similar measure for 195 countries from the Institute for Health Metrics and Evaluation (IHME) published in the *Lancet*, a medical journal, in September.

Both indices try to reflect the quality of education, not just the quantity. A growing number of countries now take part in initiatives like PISA, the Programme for International Student Assessment, which in 2015 tested pupils in 72 countries. With a little effort, these various measures can be rendered comparable. That allows researchers to calculate what a year of schooling is worth in different parts of the world. For example, the World Bank calculates that a year of education in South Africa is worth only about 60% as much as one in Singapore.

Unsurprisingly, the correlation between the two indices is close (see chart). America ranks 24th on the World Bank’s new index, and 27th on the IHME’s. China ranks 46th on the first and 44th on the latter. But there are also notable discrepancies. On the bank’s index, Bangladesh does better than India, Vietnam better than Malaysia, and Britain better than France. None of that is true in the IHME’s rankings.

Different countries also stand at the top of the two tables. Singapore leads the bank’s ranking. But it lies 13th in the IHME

index, which instead places Finland top. The divergence reflects two differences in approach. The World Bank’s method ignores higher education (which is even more prevalent in Finland than in Singapore). And its measures of health (stunting and survival rates) are too crude to distinguish between Singapore’s healthy population and Finland’s even healthier one.

The indices are not just exercises in measurement. They are also motivational tools. The World Bank worries that governments underinvest in human capital, because the rewards arrive painfully slowly and often without fanfare. By ranking countries, these indices may appeal to governments’ national pride and competitive spirit, much like the bank’s annual assessments of the ease of doing business around the world.

The two indices are also intended to be responsive to reforms. Although investments in human capital can take decades to pay off, countries will not have to wait as long to rise up the two league tables. Both indices are designed to be forward-looking, measuring the human capital that will be accumulated if a newborn grows up in the health and educational conditions prevailing now. For example, France’s decision to start mandatory schooling at age three will improve its ranking when the first toddlers are enrolled, long before the economy feels the benefit.

The bank’s index offers a further prod to reform. It uses research on the economic returns to health and education to weight the components of its index according to their contribution to productivity. If a

country doubles its human-capital score it should, in the long run, double its GDP per person, compared with a scenario where its score stayed the same. That prospect should make a government’s eyes widen.

Unfortunately the index is still hobbled by gaps in the data and in economists’ understanding. The link between stunting and productivity, for example, remains murky. Only 65% of the world’s births are registered, as are only 38% of deaths. Many countries test their schoolchildren infrequently, if at all. If pupils are not tested until the age of 15, then any reform that helps primary-schoolers learn will not improve the country’s ranking until they grow old enough to ace the tests.

The World Bank has itself flagged these data shortcomings. It hopes the very existence of its index will motivate governments to collect the data the index needs if it is to work properly. To adapt another metaphor favoured by Ms McCloskey, the World Bank has built a sleek sports car; now it must shame governments into building roads that are worthy of it. ■

Financial markets

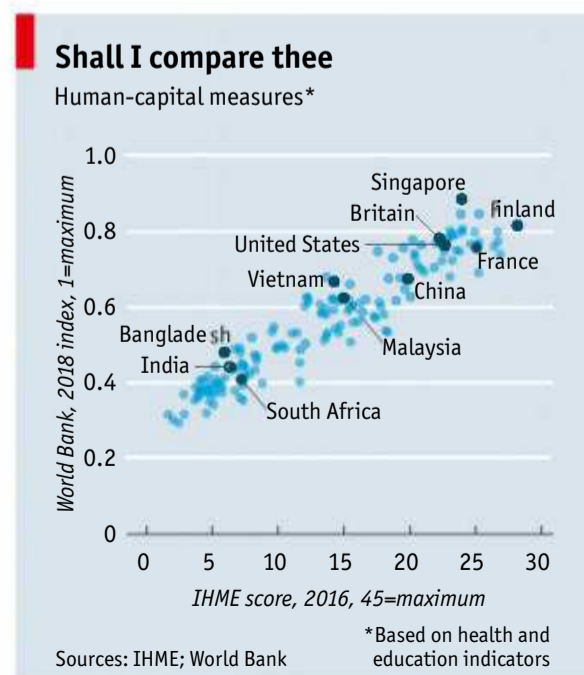
Baiting bears

Short-sellers are much maligned, but they are good for markets

IT IS a stressful time to be an investor in Tesla. On September 29th shares in the electric-car manufacturer soared by 17% after its boss, Elon Musk, settled fraud charges with America’s Securities and Exchange Commission (SEC). Just days later, on October 4th, a series of belligerent tweets by the firm’s outspoken founder sent shares tumbling by more than 7%.

The tweets in question, like many of Mr Musk’s market-moving social-media posts, were targeted at short-sellers, who aim to make money by selling borrowed shares and buying them back later at a lower price. With a quarter of its publicly traded shares lent out to facilitate short-sellers’ bets, Tesla is one of the most heavily shorted companies in America. Mr Musk has publicly feuded with short-sellers for years, calling them “haters”, “jerks” and “not supersmart”. Research suggests that such insults are undeserved. Short-sellers are savvy investors who help to keep the market’s exuberance in check.

Short-sellers have always had their detractors. In 1610 regulators in Amsterdam banned short-selling after it was blamed for driving down the value of the Dutch East India Company. Two centuries later Napoleon deemed the practice an act of treason and prohibited it. After the stock- ▶





Elon's not a shorts man

▶ market crash of 1929 Herbert Hoover, America's president, similarly decried speculative short-selling as unpatriotic. The shorts are viewed with such suspicion because they profit from the misfortune of others. When markets plummet, they are often blamed for deliberately exacerbating the fall to reap bigger returns.

Academics say such accusations are far-fetched. Studies that look at when short-sellers place their bets find that they behave much like other investors. Price declines that make short trades profitable tend to endure, undermining claims of manipulation. By seeking out overvalued assets, short-sellers help rein in animal spirits and prevent bubbles from forming. They make markets more liquid: when short-selling is banned by regulators, bid-ask spreads—the difference between the price at which shares are bought and sold, widely used as a measure of market liquidity—increase.

The shorts can also root out malfeasance. Jim Chanos, a well-known short-seller who is one of those betting against Tesla, famously predicted the collapse of Enron, an energy-trading firm that went bust in 2001.

Shorts' bets do not always pay off immediately. Ihor Dusaniwsky from s3 Partners, a financial-technology and analytics firm, thinks that Tesla's short-sellers are sitting on unrealised losses of close to \$3.5bn since the start of 2016. So far this year, borrowing fees alone have cost them more than \$200m.

Although short-sellers endure long stretches in the red, as a group they are clever stock-pickers. Studies show that heavily shorted stocks underperform lightly shorted stocks by as much as 16% a year on average. It was once thought that short-sellers profited mainly from bets on near-term price movements lasting no more

Financial planning

Pet provisions

Furry friends increasingly feature in their owners' budgets

ONE of Dianne Burns' most important retirement plans involved a dapple-grey horse named Scout. The former forensic scientist had dreamed of riding once she stopped work. So it was a happy coincidence when she discovered that her financial planner—who advises clients on California's central coast—loved horses, too. Thanks to precise financial modelling and strict budgeting, Ms Burns managed to set aside \$20,000 for a pickup truck and \$10,000 to buy Scout in 2016. Ms Burns says she plans to sell some shares next year so that she can buy her horse a trailer—though she hopes not to draw down her savings too much.

Ms Burns joins a growing number of people who are including their pets in their financial plans. Two-thirds of all horse-owners in America have made some provision in their wills for their pets, according to a survey by the American Pet Products Association. Over a third of American pet-owners say they would pay for animal-related expenses by putting less into their retirement accounts. And three-quarters of those buying a home said they would turn down an otherwise ideal property if it did not meet their animal's needs.

Urbanisation helps to explain the changing relationship between humans and their pets. As people flocked to cities, they started to anthropomorphise their animals, explains James Serpell from the University of Pennsylvania's school of veterinary medicine. Demography may also play a part. Millennials—who are putting off child-rearing—are now the largest group of pet-owners in America. But whatever the reason, pets are increasingly considered members of the family.

This change entails greater costs. Pet-product companies now make pricey hypoallergenic feed for geriatric dogs, cat food made with mackerel and lamb from New Zealand, and even antioxidant supplements for horses. David Church of Britain's Royal Veterinary College says that procedures for animals such as brain

surgery, pituitary-gland removal and heart-valve-replacement surgery show that vets can now do just about anything that doctors can for humans. For a big group of pet-owners, he says, the demand for veterinary treatment is essentially inelastic to changes in prices. Better pet health-care has in turn led to longer—and dearer—lives.

The legal framework is also becoming more supportive. As a general principle, beneficiaries of non-charitable trusts need to be humans. Pets, however, are regarded as property, and people are not typically allowed to bequeath property to other property—leaving a dishwasher to the sink, say. But pets are an exception when it comes to trusts, says Brian Sloan, who lectures on family law at the University of Cambridge. Precedent in several common-law jurisdictions makes exceptions for those set up for the maintenance of animals. Ms Burns is considering one for Scout.



Well looked after

than a month. But recent work by researchers at the University of Missouri and Renmin University in China suggests that opportunities for generating returns can persist for as long as a year. The authors estimate that a tenth of short positions last for at least six months.

Mr Musk has demanded that short-selling “should be illegal”. He has repeatedly vowed to “burn” Tesla short-sellers and

“explode” their bearish positions. Recently, though, he has done the opposite. His tweet on October 4th, which mockingly referred to the SEC as the “Shortseller Enrichment Commission”, made short-sellers a whopping \$645m. According to Mr Dusaniwsky, the company's nay-sayers are convinced the stock is still overvalued. The shorts will not be exiting their positions any time soon. ■

Money-laundering in London

Awash

In the fight against dirty money, Britain leads the way on transparency but lags behind on enforcement

WHEN Bill Browder investigated a \$230m fraud perpetrated by Russian officials against his investment company, Hermitage, he uncovered a money trail that led to several financial centres, including London. At least \$30m of the stolen money flowed into British banks. Much was moved through British shell companies with British nominee directors, one of which was set up by a corporate-registration firm based near Mr Browder's London office. The loot flowed on to, among others, British interior-design firms, estate agents and a personal concierge service.

No one knows how much dirty money is rinsed through London, but Britain's National Crime Agency (NCA) reckons British banks and their subsidiaries (including those in overseas territories) launder "many hundreds of billions of pounds" each year. British companies and partnerships were prominent among the getaway vehicles used in some of the biggest money-laundering schemes of recent years, including the "Russian laundromat", in which at least \$20bn was siphoned out of Russia in 2010-14, and an even bigger washing exercise through Danske Bank's Estonian branch. Much of the iffy money is ploughed into swanky British pads. Over 40,000 London properties are held by overseas firms, a quarter of them registered in the British Virgin Islands.

As well as highlighting the plethora of British links to money-laundering, the Hermitage case illustrates the inadequacy of its law enforcers' response. Authorities in 11 countries, including America, Switzerland and Monaco, have acted on Mr Browder's findings. Not Britain. Five separate approaches between 2010 and 2016 were ignored or rejected. Eventually, after his team provided devastating detail on suspect transactions with a British link, an NCA investigator tried to take up the case. A senior colleague—the agency's liaison with the Foreign Office—told him to drop it because Mr Browder was "a pain".

Two MPs have called on the agency to explain to Parliament why it is not investigating. The NCA says there was no political interference and that it concluded an investigation was not "an effective way forward" because there was "no realistic prospect" of successful prosecution or the recovery of illicit funds in Britain.

Cock-up, conspiracy or a justifiable rejection? Whatever the explanation, it is clear that Britain's broader war on dirty

money lacks oomph. Its most recent high-profile case was the prosecution of James Ibori, a former regional governor from Nigeria. That was a decade ago.

Blame, in part, a lack of funding. The NCA's already modest 2017-18 budget, £437m (\$577m), will fall by £10m next year. It has far fewer investigators with the skills to handle complex cases than its peers in America and comparable European countries, including Italy's Guardia di Finanza, with its army of forensic investigators. Pay is lower too, and many quickly end up at private firms. "If you bought a round of drinks for all the ex-NCA investigators now in the City or Canary Wharf, you'd bankrupt yourself," says Tom Keatinge, a financial-crime expert at RUSI, a think-tank.

Fragmentation is another problem. Though the NCA is the most prominent crime-fighting agency, a major money-laundering probe might also involve the Serious Fraud Office, the City of London Police, HM Revenue & Customs (HMRC) and others. The government is hoping that the imminent launch of a National Economic Crime Centre (NECC), housed within the NCA, will bring more coherence. This will lead big cases and co-ordinate other agencies' work. Ministers have agreed "significant" new investment in financial-crime capabilities from 2019. But they have not said how much. The NECC will mostly use staff and money from existing agencies. Its forecast spending for 2018-19 is an underwhelming £4m-5m.

Donald Toon, head of the NCA's eco-

nomics-crime team, insists it is "upping its game". Big cases involving money from Africa and Asia are in the works. Britain's corruption-fighters have a new tool: the "unexplained wealth order" (UWO), which puts the onus on targets to show that properties under suspicion were bought with clean money. The first UWO to be issued in Britain (Australia already uses them) has just survived a legal challenge from the recipient, an ex-banker's wife from Azerbaijan. Mr Toon expects a "handful" of UWOs in the coming months. Campaigners want more: Transparency International says it has identified 150 London properties that warrant UWOs, and that even those are the "low-hanging fruit".

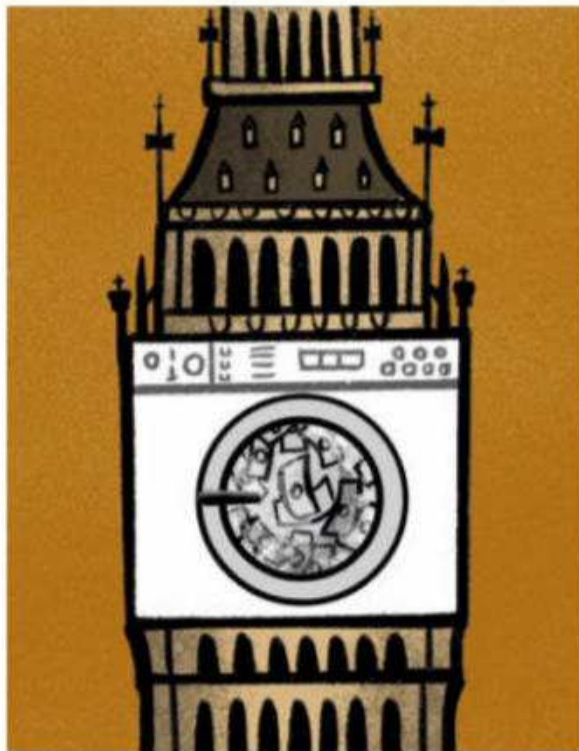
But the legal barriers to conviction remain daunting. Prosecutors will have to go through several more stages before they can seize the ex-banker's wife's house. Disproving even a flimsy explanation of the money's provenance can be hard if the country where the original crime took place does not co-operate. Deep-pocketed defendants challenge every move.

In one regard, Britain is a financial-crime-fighting trailblazer. In a bid to crack down on shell-company abuse, in 2016 it became the first G20 country to introduce a public register for company owners. However, submitted information is not systematically checked. Recent analysis by Global Witness, an NGO, found thousands of "highly suspicious" entries, including firms creating circular structures where they appear to own themselves.

Companies House, the government's corporate-registration agency, says it has 80 people working to improve the register's "integrity", but that it does not have the capability to verify the accuracy of all details sent in. The only prosecution for false submission was of a campaigner who submitted dodgy information to show how easy it was, then shopped himself. Meanwhile, policing the 2,700 outfits that help set up British companies falls to HMRC. It has shown little enthusiasm for the job. The largest publicly disclosed fine it imposed last year was £6,000.

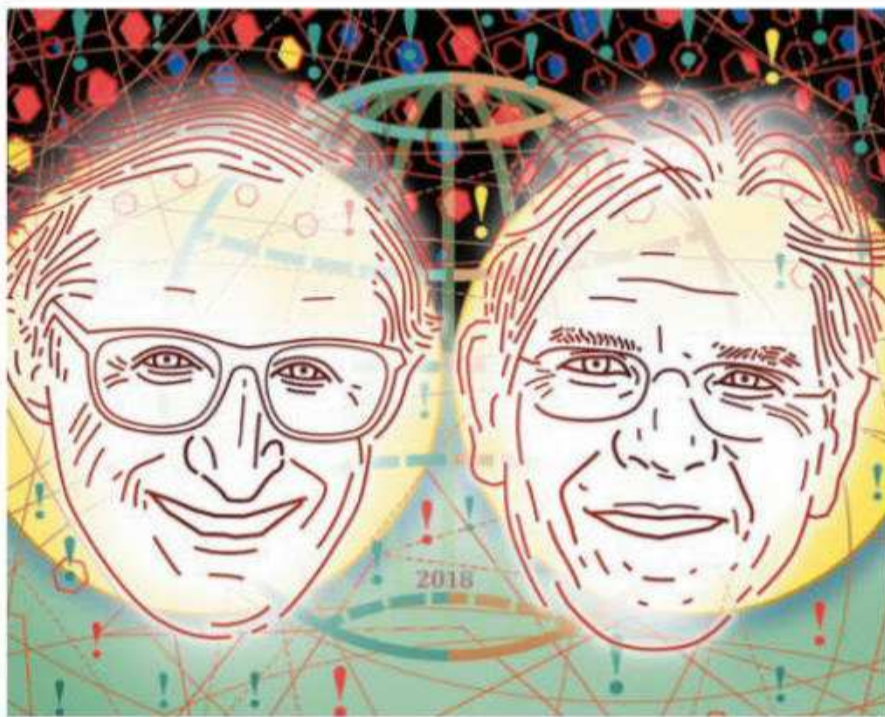
That leaves some worried about how effective another planned public register will be: for owners of overseas companies that own British property. Moreover, the timetable for this has been pushed back to 2021; it could slip further.

Others, not least in government, have a more pressing concern: a looming evaluation of Britain's anti-money-laundering progress by the Financial Action Task Force (FATF), which sets global standards, expected by December. The report card should contain at least a few low grades; the FATF is, for instance, no fan of relying on unverified data. An unfavourable assessment would give anti-corruption activists even more ammunition to urge a proper clean-up of the London laundry. ■



Free exchange | Greener pastures

Paul Romer and William Nordhaus win the Nobel prize in economics



WHY do economies grow, and why might growth outstrip the natural world's capacity to sustain it? There are few more important questions in economics. The answers require a working grasp of the mechanisms underlying growth. For the progress that the profession has made towards that understanding, it owes a particular debt to Paul Romer and William Nordhaus, this year's winners of the Nobel prize in economic sciences.

Although both scholars have long been talked of as potential winners, they are not an obvious pairing for the prize. Mr Romer tends to be described as a growth theorist; Mr Nordhaus's work is in the field of environmental economics. The Sveriges Riksbank, which awards the economics Nobel, found a common thread in their work incorporating two crucial processes—knowledge creation and climate change, respectively—into models of economic growth. But what most links their work is that they have improved the way the profession thinks about impossibly complex systems, while also revealing the extent of its ignorance.

The influence of both men extends beyond their most noted scholarly achievements. Mr Romer's career has been especially varied. He left academia in the early 2000s to found an educational-software company. More recently he served as the World Bank's chief economist (his tenure ended abruptly when staffers bristled at his management style, which included an insistence on more crisply written reports). But it is his analysis of economic growth that has had the greatest impact.

Economists used to think that sustained long-run growth depended on technological progress, which in turn relied on the creation of new ideas. They struggled, however, to explain convincingly how markets generated and propagated those ideas. When Mr Romer came into economics, most prominent models of growth relied on "exogenous" technological progress: it was simply assumed, rather than generated by the models' equations.

Dissatisfied by this state of affairs, he sought answers by probing the non-rivalrous nature of knowledge: the fact that ideas, once created, can be endlessly exploited. The firms or individuals that come up with new ideas can only ever capture a small share of the benefits arising from them; before long, competitors copy the original brainwave and whittle away innovators' profits. In Mr Romer's work, markets are capable of generating new ideas.

But the pace at which they are generated, and the way in which they are translated into growth, depends on other factors—such as state support for research and development, or the protection of intellectual property.

The "endogenous" growth models produced by Mr Romer, and by others influenced by him, were once hailed as a critical step towards understanding patterns of economic growth across the globe. They have not quite fulfilled that promise: knowledge may be necessary for growth, but it is clearly not sufficient. But their shortcomings have themselves raised important questions about the stubborn disparities in growth rates. Why are some countries able to exploit existing ideas and grow, while others are not? Should policymakers who want to boost growth focus on policies that support the creation of knowledge or on those that break down barriers to the exploitation of existing knowledge? Or does it make most sense to shift people and resources from the parts of the world that struggle to grow to those that do not? By provoking such questions, Mr Romer's work identified a rich vein for other researchers to mine.

Mr Nordhaus, for his part, has been a towering figure in the debate about how to respond to one of the biggest challenges that humanity faces. When he was beginning his career in the early 1970s, awareness of the dangers of environmental damage and the threat posed by climate change was just starting to grow. Understanding the economic costs such damage imposes is essential to answering the question of how much society should be willing to pay to avert it.

Mr Nordhaus applied himself to solving this problem. That meant working out the complex interactions between carbon emissions, global temperature and economic growth. He combined mathematical descriptions of both climate and economic activity into "integrated assessment models". This allowed him to project how different trajectories for the world's carbon emissions would produce different global temperatures. That, in turn, allowed him to estimate the likely costs of these different scenarios—and thus what level of reduction in emissions would be economically optimal. He was the first to suggest that warming should be limited to no more than 2°C higher than the world's pre-industrial temperature. Models like his have become the linchpin of most analysis of the cost of climate change.

The known world

As with Mr Romer's work, Mr Nordhaus's contributions are also notable for the lessons imparted by their shortcomings. Four decades after he began publishing research on climate change, the limits to scholars' predictive abilities have become abundantly clear. Indeed, his work has prompted vigorous debate about how best to think through the huge uncertainties associated with global warming—from how emissions translate into higher temperatures to how well society can adapt to rapid changes in climate.

Policymakers prefer the comfort of hard numbers. But the often-unfathomable complexity of human society and natural processes may mean that other guides are sometimes needed to set policy, from the precautionary principle to moral reasoning. Ironically, Mr Nordhaus's computations, like those of Mr Romer, made that awareness possible.

Above all, both of this year's prize-winners tackled problems that the field both could not understand and could not afford not to understand. They blazed trails that scholars continue to follow—to the benefit of economics and humanity. ■



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Global warming

War war is better than jaw jaw

Action now might still avert the worst of climate change. But how likely is that?

IN 1996 the European Union became the first significant political body to suggest that the goal of preventing “dangerous anthropogenic interference in the climate”, to which the world had signed on at the Rio Earth summit of 1992, meant, in practical terms, keeping global warming below 2°C relative to the late 1800s. This two-degree limit had been an informal measure of the point where climate change gets serious since the 1970s. William Nordhaus, a pioneer of climate economics who this week shared the Nobel prize for his efforts (see *Free exchange*) seems to have been the first to use it as such. But between 1996 and the Copenhagen climate summit of 2009 it was transformed from one possible interpretation of the Rio goal to the target on which the world agreed.

At the Paris climate summit of 2015, though, this changed. In light of both new evidence and new concerns, notably those of low lying countries that might not survive the amount of sea level rise two degrees would bring, the nations of the world agreed a new target: keeping warming “well below” 2°C above pre-industrial temperatures. Indeed, they urged themselves to “pursue efforts towards 1.5°C”.

This lower target would presumably be better for all, not just the likes of Kiribati.

But exactly how much better has been far from obvious. So the Paris agreement also gave to a body called the Intergovernmental Panel on Climate Change (IPCC) the task of finding out. Given that the world is actually on track for a rise of more than 3°C, regardless of the pieties of Paris, it was also charged with finding out whether limiting the rise to 1.5°C is in any way feasible.

The judgment on Paris

On October 8th, nearly three years, several drafts and some 40,000 reviewer comments later, the panel unveiled the fruit of its labours at a gathering in Incheon, South Korea. The 1,200-page report, written by 91 researchers from 44 countries, presents no truly new science. The panel’s brief was to survey all relevant literature—more than 6,000 studies, many spurred by the report’s commissioning—and to synthesise the results. It makes for sobering reading, both in terms of what the half-degree difference between the two targets may mean for the planet, and regarding the effort needed to meet the tougher goal.

The authors profess “high confidence” of a “robust difference” between 1.5°C and 2°C worlds. At 1.5°C, 6% of insect species, 8% of plants and 4% of vertebrates would lose more than half their habitat. The figures for

2°C are 18%, 16% and 8%, respectively.

At that temperature rise, ecosystems covering between a twelfth and a fifth of Earth’s land mass can be expected to undergo transformation to another type—savannah to desert, say. That is 50% more than would happen with a rise of 1.5°C. Most dramatically, the IPCC finds it almost certain that a 2°C rise would wipe out more than 99% of corals. By contrast, a rise of 1.5°C would leave 10-30% of them alive, and with them the hope of regeneration if temperatures subsequently stabilised.

Permitting a rise of 2°C rather than 1.5°C could also see 420m more people exposed regularly to record heat. “Several hundred million” more would have to contend with climate-induced poverty. Food security would decline and water scarcity increase, especially in poor and already-fragile areas such as the Sahel region of Africa, just south of the Sahara desert. And an additional 10cm of sea-level rise could hurt the livelihoods of more than 10m people living on the coast.

The report also nods towards the chance of dangerous feedback loops. A two-degree temperature rise could lead to the thawing of 1.5m-2.5m km² of permafrost—about the area of Mexico. That, in turn, would release methane, a potent greenhouse gas which would lead to further warming, thawing and so on.

The IPCC does not quantify the effects of such feedback. But work which appeared in August, after the deadline for consideration in the report, attempts to do so. This study, led by Will Steffen of the Stockholm Resilience Centre and published in the *Proceedings of the National Academy of Sciences*, concludes that five ►►

▶ feedback loops unleashed by a rise of 2°C are likely to be important. These involve the permafrost, natural carbon sinks such as the ocean, increased methane emissions from marine bacteria, and the dying of Amazonian and boreal forests. Together these could add between 0.24°C and 0.66°C of extra warming.

Such alarming conclusions are necessarily subject to the huge uncertainties inherent in climate science. Though they have survived scrutiny by peer review in the journals in which they appeared, and then again by the IPCC's authors, individual studies may yet be challenged. Taken together, however, they paint a picture that looks bleak. There is, remarks Glen Peters of the Centre for International Climate Research in Oslo, who was not involved in the report, perhaps one-tenth of the material where there might be disagreements, but scientists agree 100% about the remaining nine-tenths.

Cooking in gas

The same uncertainties apply to the report's outline of possible pathways to a 1.5°C future. On the bright side, the IPCC concludes that such a future remains geophysically within reach, thanks to what remains of the Earth's "carbon budget" for 1.5°C—the cumulative sum of emissions at which the climate system stands a good chance of remaining below a particular temperature. The panel's Assessment Report, a septennial compendium of the latest climate science, most recently published in 2013-14, warned that an eventual minimum rise of 1.5°C, though it would not manifest itself until mid-century, would be "baked" irreversibly into the climate system by 2020 if economic activity continued to belch carbon dioxide at the present rate. In the past few years climate modelers have, controversially in the eyes of some, revised the Earth's remaining budget to around 12 years' worth of current emissions, thus pushing back the date of bake-in.

Even with a bigger carbon kitty though, keeping the temperature rise below 1.5°C would take an epic effort. Of 90 published models purporting to chart the most economically efficient way to achieve this goal, the IPCC considers that just nine stay below the threshold throughout this century. The rest overshoot it, and so require removal of carbon dioxide from the atmosphere to offset the excess emissions.

These "negative emissions" could come from planting more forests, which draw in carbon dioxide as they grow. Planting "energy crops" such as fast-growing grasses, which could be burned instead of fossil fuels (with the carbon dioxide thus generated captured and stored underground), is also possible. Either approach, though, would mean converting to that purpose an area of agricultural land somewhere in size

between India and Canada. An alternative is "direct air capture"—artificial devices that retrieve carbon dioxide directly from the atmosphere. These exist but they, too, would need to be deployed at a gargantuan scale. (Solar geoengineering, a controversial idea to disperse particles of matter into the atmosphere to reflect heat back into space, was not considered in detail.)

Negative emissions or solar geoengineering might ease the need to decarbonise economies quickly—but not eliminate it. As the charts show, even with negative emissions carbon-dioxide release still needs to fall by 45% or thereabouts by 2030. To have any hope of achieving this, two-thirds of coal use must be phased out in little more than a decade. By the middle of the century virtually all electricity must come from carbon-free sources (up from a quarter today), and all cars will need to run on electric motors (up from one in 500), as will trains and most ships.

Some of the technology needed to achieve this (solar panels, nuclear-power plants, electric cars and so on) is around, but not all of it. For aeroplanes to keep flying, either novel aviation biofuel will need to be developed or negative emissions used to offset those from aircraft. Because cows produce lots of methane people will either have to switch to laboratory-grown burgers or change diets (see Briefing). Even when appropriate technology does exist, market forces alone will not improve it and spread it fast enough to have the necessary climatic effect.

Were any of this actually to happen, it would transform economies beyond recognition. And it would cost money. How much, the IPCC has resisted predicting, blaming limited economic research in the area. But, for the same reason, it does not

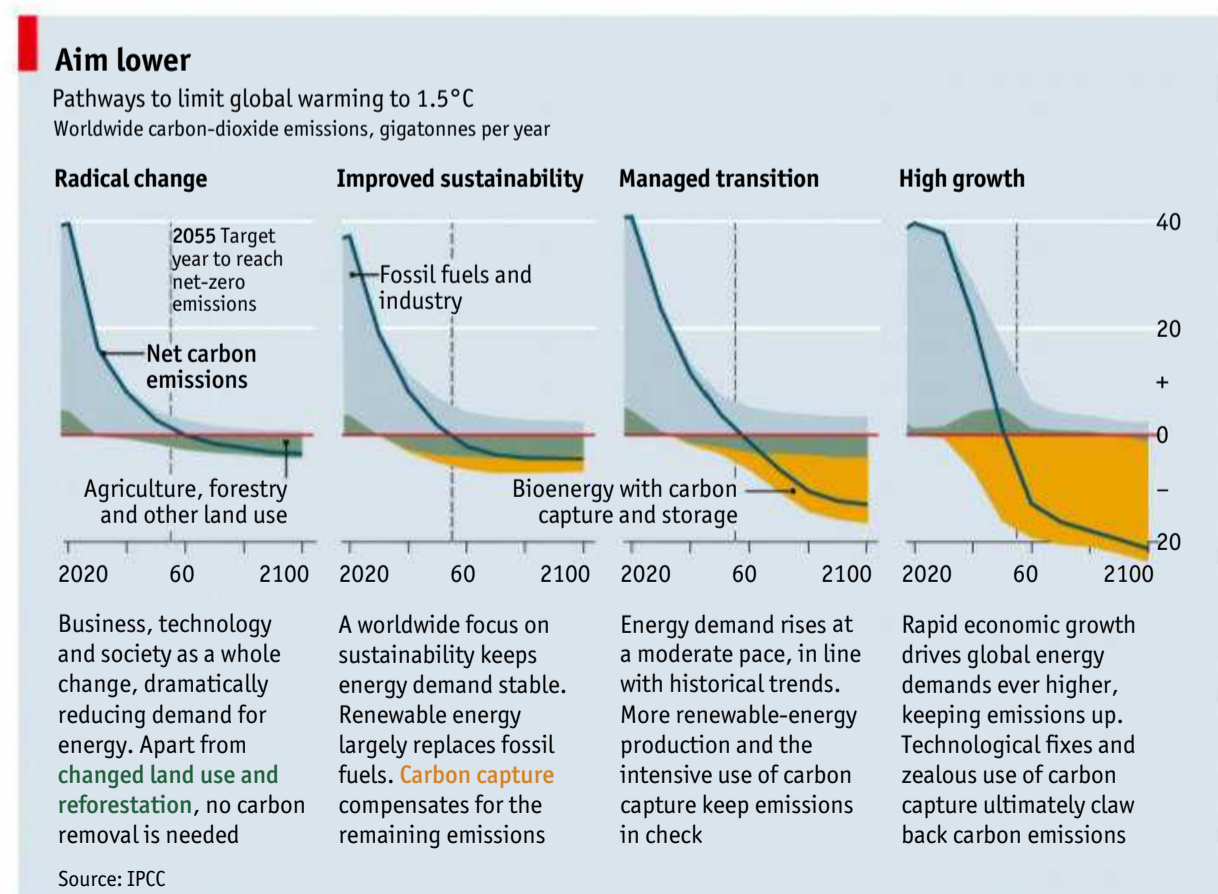
attempt to value the flip side—the damage caused by delay.

Another paper that missed the deadline, by Simon Dietz of the London School of Economics and his colleagues (one of whom worked on the IPCC report), tries to fill the first of those gaps. It estimates that keeping temperature rises to 1.5°C would cost 150% more than keeping them to 2°C, though it gives no absolute figures. Like the IPCC, Dr Dietz stops short of comparing this to averted losses. But earlier work by others suggests that a rise of 1.5°C would shave 8% from global GDP per person by 2100, relative to a world with no more warming. A rise of 2°C, by contrast, would cause a discrepancy of 13%.

Third-degree treatment?

The world's press reacted to the IPCC's tome with alarm sometimes verging on hysteria. News bulletins, front pages and op-eds harangued governments to get their act together and ratchet up climate action—especially since all of them signed off on the report's 30-page précis. That included the government of America, which President Donald Trump plans to yank out of the Paris agreement. (Mr Trump has since expressed doubts about the précis's legitimacy.)

On October 9th, a day after the volume's release and ahead of an important UN climate summit in Poland this December, environment ministers from 15 of the EU's 28 members pressed the bloc to revise its climate targets in line with the 1.5°C target. This is welcome. But in a world where even the existing target looks likely to be missed by a mile, how much difference it will make is open to doubt. In climate change, as in so many other areas, words are cheap. It is actions that are eloquent. ■



Probiotics for vegetables

A little help from my friends

Some plants nurture soil bacteria that in turn serve to keep them healthy

THE bacteria which inhabit human beings, particularly the guts of those beings, have been found in recent years to be important for fending off disease. That something similar happens in other animal species is doubtless true as well. But work by Seon-Woo Lee at Dong-A University and Jihyun Kim at Yonsei University, both in South Korea, suggests that it is not only animals which benefit from such bacterial shielding. Their study, just published in *Nature Biotechnology*, shows that plants do, too. And that may have important implications for agriculture.

Crop plants of the nightshade family, such as potatoes and tomatoes, are susceptible to a soil bacterium called *Ralstonia solanacearum*. This enters their roots and spreads through their water-transport systems, causing them to wilt. Infection is usually lethal; the disease costs potato farmers alone \$1bn a year. Some apparently suitable plants, though, seem exempt from *R. solanacearum*'s attentions. In particular, a variety of tomato called Hawaii 7996 does not suffer from such bacterial wilt. Dr Lee and Dr Kim wondered if the explanation for this exceptionalism lay with other bacteria in the soil.

To test that idea they grew crops of Hawaii 7996 and a second, wilt-vulnerable, tomato variety called Moneymaker. Once the plants were established, the researchers analysed bacteria in the soil around the plants' roots and found systematic differences that depended on which tomato strain was growing. This observation made their hypothesis plausible.

They then transplanted some of their Moneymaker plants into soil that had previously supported Hawaii 7996s, and some of the Hawaiian plants into soil that had been home to Moneymakers. As controls, they similarly uprooted individuals of both varieties and replanted them in soil once inhabited by the same variety. That done, they exposed all of their plants to *R. solanacearum* and monitored them over the course of 14 days.

They found the disease progressed almost 30% more slowly in Moneymaker plants grown in "Hawaiian" soil than it did in those Moneymakers that had been replanted into their own soil. In contrast, it progressed rapidly in the normally resistant Hawaiian variety when this was transferred into Moneymaker soil.

Further study revealed that a single type of soil bacterium, called TRM1, ap-

Extraterrestrial life

Where is everybody?

Why has ET never been found? Perhaps people have not looked hard enough

“IF ALIENS are so likely, why have we never seen any?” That is the Fermi Paradox—named after Enrico Fermi, a physicist who posed it in 1950.

Fermi's argument ran as follows. The laws of nature supported the emergence of intelligent life on Earth. Those laws are the same throughout the universe. The universe contains zillions of stars and planets. So, even if life is unlikely to arise on any particular astronomical body, the sheer abundance of creation suggests the night sky should be full of alien civilisations. Fermi wondered why aliens had never visited Earth. Today, the paradox is more usually cast in light of the inability of radio-telescope searches to detect the equivalent of the radio waves that leak from Earth into the cosmos, and have done for the past century.

Thinking up answers to this apparent contradiction has become something of a scientific parlour game. Perhaps life is really very unlikely. Perhaps the priests are right: human beings were put on Earth by some creator God for His own inscrutable purposes, and the rest of the universe is merely background scenery.

Perhaps there are plenty of aliens, but they have decided that discretion is a safer bet than gregariousness. Or perhaps galactic society avoids communicating with Earth specifically. One chilling idea is that technological civilisations destroy themselves before they can make their presence known. They might blow themselves up after inventing nuclear weapons (an invention that, on Earth, Fermi had been part of), or cook themselves to death by over-burning fossil fuels.

In a paper published last month on *arXiv*, an online repository, a trio of astronomers at Pennsylvania State University have analysed the history of alien-hunting and come to a different conclusion. In effect, they reject one of the paradox's main pillars. Astronomers have seen no sign of aliens, argue Jason Wright and his colleagues, because they have not been looking hard enough.

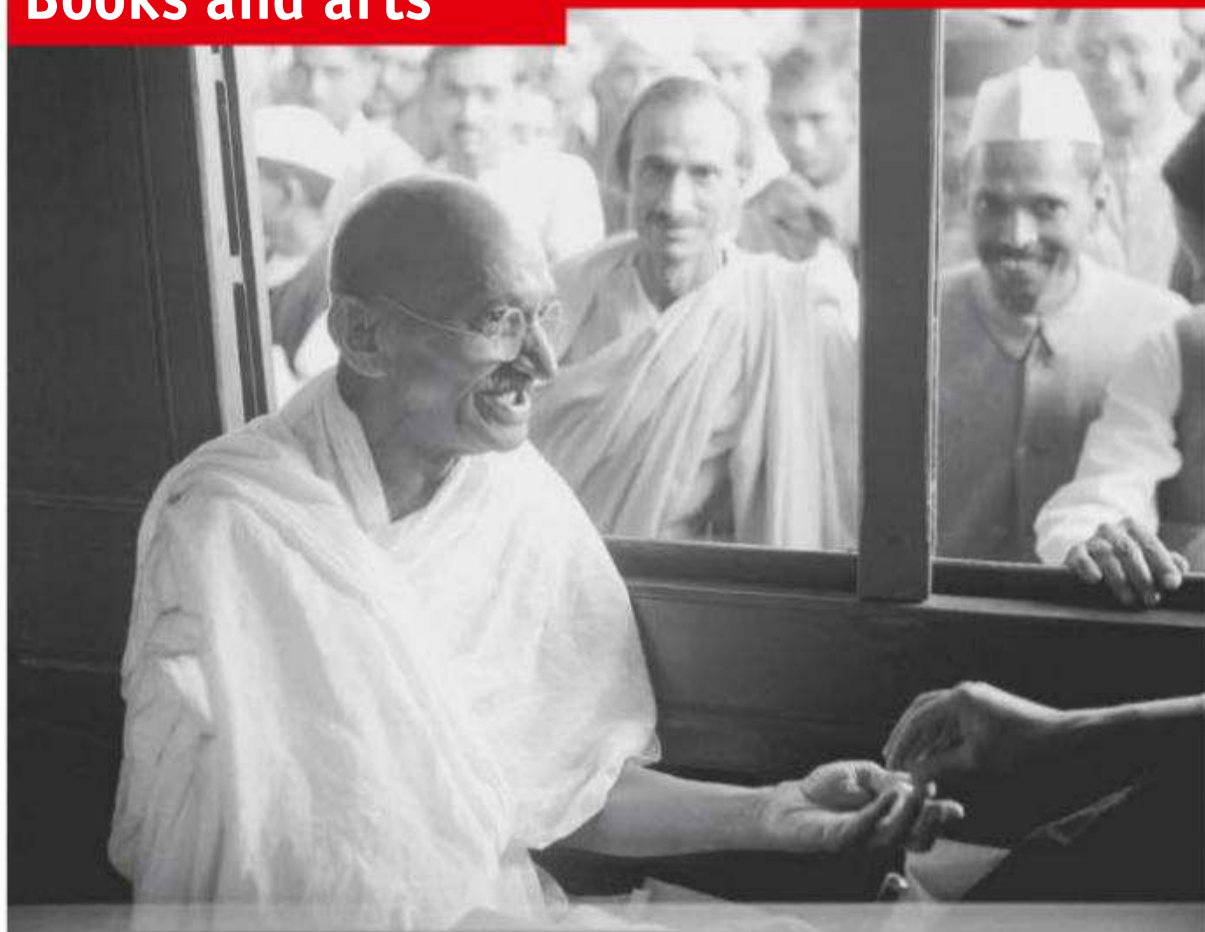
Dr Wright's argument echoes that made by another astronomer, Jill Tarter, in 2010. Dr Tarter reckoned that decades of searching had amounted to the equivalent of dipping a drinking glass into Earth's oceans at random to see if it contained a fish. Dr Wright and his colleagues built on Dr Tarter's work to come up with a model that tries to estimate the amount of searching that alien-hunters have managed so far. They considered nine variables, including how distant any putative aliens are likely to be, the sensitivity of telescopes, how big a portion of the electromagnetic spectrum they are able to scan and the time spent doing so. Once the numbers had been crunched, the researchers reckoned humanity has done slightly better than Dr Tarter suggested. Rather than dipping a drinking glass into the ocean, they say, astronomers have dunked a bathtub. The upshot is that it is too early to assume no aliens exist. Fermi's question is, for now at least, not a true paradox.



peared to be providing the protection. Dr Lee and Dr Kim therefore cultivated this bug in their laboratory and used it to treat soil into which Moneymaker plants were then planted. When these were infected with *R. solanacearum* they proved, though not completely resistant to it, certainly more resistant than others that had been planted into untreated soil as controls. More than 40% of them were still alive after 16 days. Only 12% of the control plants lasted that long.

These findings suggest to Dr Lee and Dr

Kim that the roots of Hawaii 7996 are releasing compounds which encourage the growth of TRM1. What those compounds are has yet to be determined. But the two researchers' work suggests at least three ways in which bacterial wilt might be tackled. One is to apply TRM1 itself to the soil, if it can be cultured in sufficient quantities. The second is to apply the stimulating chemicals to soil, once they have been identified. The third is to tweak the DNA of vulnerable crops to produce the stimulating chemicals directly. ■



Gandhi's life and influence

A hero for our time

The Mahatma's values are as relevant to his country as ever

THE stock of national heroes fluctuates over time. For decades Jawaharlal Nehru, India's first prime minister, was venerated at home. A gifted writer, he turned out impressive books while incarcerated in British-run prisons. In power he kept his multi-religious country democratic and stable, despite enormous strains. Abroad he guided it away from cold-war entanglements. Yet today the admiration is fading: "the popular mood in India has turned fiercely against Nehru and his legacy," observes Ramachandra Guha, a historian.

The shrivelling of Congress, once India's dominant party, partly explains that shift. Official propaganda used to fete Nehru and his descendants, prime ministers Indira Gandhi and Rajiv Gandhi. When Congress was in power, every dynastic birthday was celebrated on billboards and in fawning press notices. Today Hindu nationalists hold office and forcefully reject that legacy. The old rulers are ridiculed for corruption, economic mismanagement and the military enfeeblement they are said to have overseen.

Narendra Modi, the current prime minister, reveres others instead. Foremost among his heroes is Nehru's deputy, Vallabhbhai Patel, a more muscular nationalist and pro-Hindu politician. Patel supervised the sometimes violent incorporation of Muslim-run princely states

Gandhi: The Years That Changed the World 1914-1948. By Ramachandra Guha. Knopf; 1,104 pages; \$40. Allen Lane; £40

into India proper. This month a monument to him—at 182 metres, the world's tallest statue—will be inaugurated in a remote area of Gujarat, Mr Modi's home state.

Other historical figures and episodes have been re-evaluated, too. Mr Modi has encouraged popular acceptance of the Rashtriya Swayamsevak Sangh (RSS), a movement that was banned under Nehru after Mohandas Gandhi was shot dead in 1948 by a Hindu extremist associated with it. Occasionally Mr Modi celebrates Vinayak Damodar Savarkar, a brilliant radical who reviled Gandhi and advocated violence against Muslims (and was close to the RSS and the assassin).

What of the reputation of the most venerated luminary of all? Gandhi was India's pre-eminent nation-builder. He did more than anyone else to secure the end of imperial rule. His decades of agitation, civil disobedience, marches, fasting, lobbying, imprisonment and publicity-seeking—techniques he first practised in British-run South Africa—gradually made India's freedom inevitable.

He built up Congress from an elitist to a mass movement. He pressed for Hindu-

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Muslim harmony, for the interests of Dalits (formerly "untouchables"), for women's equality and the shunning of industrialisation in favour of village-based crafts. In all of these endeavours, except the last, he shaped India's subsequent democratic character. Crucially, he also nurtured successors, most obviously Nehru. The contrast with militaristic, unstable and often repressive Pakistan under Muhammad Ali Jinnah could not be more striking.

Every generation of Indians must revisit Gandhi for themselves, argues Mr Guha in his magnificent new biography. It isn't only that the changing political climate entails a reassessment. The growing mounds of Gandhi-related material require constant resifting. At times he churned out 80 letters a week; his collected works run to 97 volumes. Researchers, including Mr Guha, continue to unearth neglected writings.

Great soul, no saint

Mr Guha's book—the second of two volumes—begins in 1914, as his subject returns from South Africa. His narrative is sympathetic, if needlessly detailed in places: sadly its bulk may deter many would-be readers. He conveys Gandhi's playfulness as well as his intellect. Dispensing endless health advice to correspondents, Gandhi referred to himself self-deprecatingly as a "quack" doctor. Mr Guha celebrates his skill with a pen. Seepersad Naipaul (father of V.S.) praised Gandhi for writing passionately and directly, "from the belly rather than from the cheek".

The Mahatma, or great soul, does not emerge as a saint. Gandhi admitted he could be a "beast" to his wife, Kasturba. He was often inconsistent, self-regarding or irrational, as when he claimed his habit of celibacy could somehow end religious vio- ▶▶

lence. He was a bore in his insistence that others should shun sex and contraception. He erred in telling German Jews, Czechs and Britons not to resist Nazi attackers. Mr Guha also reveals a long-kept, juicy secret: in the 1920s Gandhi had a prolonged (if un consummated) infatuation with the niece of Rabindranath Tagore, a Bengali poet, whom he called his wife in some letters.

The author skilfully traces the evolution of Gandhi's political beliefs. For example, he was an early campaigner against the ill-treatment of Dalits, yet for much of his life kept faith in Hinduism's caste divisions and failed to support inter-caste marriages (initially he was also against Hindu-Muslim unions). Only gradually did he reject caste outright. "No upper-caste Hindu did as much to challenge untouchability as Gandhi," Mr Guha concludes, convincingly. He rejects revisionist, left-leaning critics such as Arundhati Roy, who have labelled Gandhi a sell-out on caste.

Many details in the book are fresh. More closely than any other biographer, Mr Guha tracks the forgotten influence of Gandhi's long-serving secretary, Mahadev Desai. He offers lively trivia. Gandhi, it transpires, saw just one film in his lifetime and had no idea who Charlie Chaplin was when they met. He charmed many he encountered. Dressed only in a loincloth, Gandhi had an amicable exchange with King George V, though the pope refused the Indian an audience, objecting to his attire.

But Mr Guha's analysis is most valuable on the big issues. Even more important than securing independence, reckoned Gandhi, India had to seek Hindu-Muslim peace. Upset by the bloodshed of partition, he especially pressed moderation on fellow Hindus, enshrining the idea that India should not be dominated by one religion, becoming a Hindu raj. He did this despite earlier British efforts to set Muslims and Hindus against each other, and notwithstanding the antics of Jinnah, Savarkar and others who stirred up antipathy for narrow partisan gain.

It would be reckless to forget Gandhi's warnings. But, with good reason, Mr Guha fears that is indeed happening. At a time of hardening Hindu nationalism, crude attacks on Gandhi have become routine online: "worryingly, there is a wider disenchantment with Gandhi's ideas of religious pluralism," Mr Guha notes. The likes of Mr Modi may offer lip-service to Gandhi, but then they "seek to diminish his stature by elevating their own heroes," such as Savarkar.

More than ever, perhaps, Indians and outsiders would benefit from reacquaintance with Gandhi's belief in compromise. Mr Guha's magisterial account of a compassionate man provides a timely opportunity. Yet, as Gandhi knew, in the end it is political actors, not writers, who bring about real change. ■

Sloganeering in America

They had a dream

Behold, America: The Entangled History of "America First" and "the American Dream". By Sarah Churchwell. *Basic Books*; 368 pages; \$19.99. *Bloomsbury*; £20

IT IS common for historians to examine the actions of great men. Sarah Churchwell, a professor of American literature at the University of London, does something different. Her protagonists are not people but two expressions: "the American dream" and "America first". By tracking their usage down the years in newspapers, books and politicians' speeches, her aim is to cast light not just on the country's past but also on its politics today. President Donald Trump launched his bid for the White House proclaiming that "the American dream is dead"; he has used "America first" as a rallying cry.

Both phrases are about a century old and have had a richer and more varied life than is commonly realised. The American dream nowadays tends to evoke individuals' pursuit of riches, Ms Churchwell argues, but it started out in the Progressive Era meaning almost the opposite: "the social dream of justice and equality against individual dreams of aspiration and personal success". After that, each successive

period invented its own American dream according to the prevailing conditions.

For the first 20 years the expression mainly had a political, not an economic meaning. But from the mid-1920s it took on a familiar ring, and in the 1930s, against the background of the Depression, its use exploded as it came to describe what one of its champions, the historian James Truslow Adams, called "that belief in the right and possibility of a better life for all, regardless of class or circumstance". By the 1950s and the advent of the cold war, says Ms Churchwell, the dream "had shrugged off all sense of moral disquiet, becoming a triumphalist patriotic assertion".

"America first", meanwhile, has always been a political slogan, with many applications. President Woodrow Wilson tried to wield it with subtlety, explaining that America needed to think of itself first, but to be ready to be Europe's friend once the first world war was over. Others were cruder, urging protectionism, isolationism or worse. When the nationalist mood took him, William Randolph Hearst slapped "America First" on the masthead of his newspapers. The Ku Klux Klan used it to boost white supremacism.

It has been strikingly popular. The Republican Party adopted it as a catchphrase in 1894. Wilson picked it up in a speech in 1915 and used it as a slogan for his presidential campaign the following year (as did his Republican opponent, Charles Evans Hughes). The next three presidents—Warren Harding, Calvin Coolidge and Herbert Hoover—all embraced it. The anti-war America First Committee brandished it. It seems almost an anomaly that "America first" went quiet for so long until its recent thunderous revival.

As she weaves the twin strands of her history, shuttling between the American dream and "America first", Ms Churchwell sometimes relies on tenuous connections to (and between) her yarns. Books described as "American dream novels" ("The Great Gatsby", "Of Mice and Men") turn out not to mention the phrase at all. A juicy tale of Fred Trump, the president's father, being arrested along with five "avowed Klansmen" at riots in Queens in 1927 has only a tangential connection to the America-first narrative.

Yet this book is timely and instructive. Mr Trump's critics can be mildly reassured that banging on about "America first" has plenty of precedent; yet they will also be disturbed by the nastiness of some of that history. As for the American dream, Ms Churchwell laments that it has become fossilised and flat. Americans once dreamed more expansively, she says, invoking ideas of social democracy and social justice. For all her evident abhorrence of Mr Trump, she may agree with him on one thing: reviving the dream might help make America great again. ■



America first and last

A mirror up to nature

She the people

NEW YORK

Broadway takes a political turn

AT A time when the news features heroes and villains, high-stakes choices and grand revelations, audiences are bound to find echoes of contemporary life on stage. But in its impending season, Broadway is embracing politics in an unusually concerted way. The run will include plays about race and justice (“American Son”, “To Kill a Mockingbird”), gay love and shame (“Torch Song Trilogy”, “Prom Night”, “Choir Boy”), rapacious greed and hucksterism (“Glen-garry Glen Ross”), perverse news-spinning (“Network”, “Ink”), and the grisly fate of a vain ruler who is undermined by his inner circle (“King Lear”).

“Theatre has a huge responsibility right now,” says Leigh Silverman, director of “The Lifespan of a Fact”, a new play about the relation between factual accuracy and deeper truths, which will have its world premiere at Broadway’s Studio 54 on October 18th. Ms Silverman says she was drawn to “Lifespan” because it wrestles with acutely topical questions about the moral duties of art, the relevance of small details when telling a larger story and the fragile nature of credibility. It is also very funny.

Written by Gordon Farrell, Jeremy Kareken and David Murrell, the play dramatises a real-life debate between John D’Agata, an acclaimed writer with an impressionistic notion of truth, and Jim Fingal, a young magazine intern given the task of fact-checking John’s essay about a teenage suicide in Las Vegas. Their fiddly exchanges over details, which spanned several years and spawned an unconventional co-written book, seem unlikely fodder for the stage. It is all the more impressive that this production—which stars Bobby Cannavale as the self-important essayist, Daniel Radcliffe as his pernicky fact-hound and Cherry Jones as their formidable editor—turns out to be so provocative and entertaining.

The drama is set against a backdrop of an industry in free-fall. Advertising sales are declining, subscribers are dying off and a “streamlined” editorial process has dispensed with the old fact-checking department. Although Jim’s scrupulous research veers into obsession, he is the play’s moral centre. His declaration that white lies not only weaken John’s arguments but “undermine society’s trust in itself” earned hearty applause during a recent preview.

Heidi Schreck’s arresting “What the



Read it and weep

Constitution Means to Me”, off-Broadway at the New York Theatre Workshop, also benefits from grimly auspicious timing. A playwright and performer, Ms Schreck (pictured) knows the constitution well. She put herself through college with the money she won making speeches about it in high-school competitions. Now in her 40s, she revisits her guileless teenage talks with the wisdom of experience and finds a more troubling document. Created as it was by white, slave-owning men, the constitution’s promises long excluded women and non-whites. Dominated as it overwhelmingly has been by white, male justices, the Supreme Court has been slow to recognise the claims of others. Ms Schreck notes that women won the rights to use birth control and terminate unwanted pregnancies only in the early 1970s. Some of these gains may now be under threat.

But this quicksilver play is no dull civics lesson. Ms Schreck toggles between analysing the constitution and telling stories about the legacy of sexual abuse in her family and her own experience of having an abortion. She talks about a Supreme Court ruling of 2005 that found women have no federal right to police protection from violent partners, about a step-grandfather who raped her aunt, and about the time when, aged 17, she had sex with a boy because “it seemed like the polite thing to do”.

Her show is dark but not bleak. Ms Schreck probes the constitution’s flaws but also demonstrates the power of understanding it. Stirred viewers are sent home with a theatre-issued copy of the text tucked into their pockets.

A novel of immigration

No escape

What We Owe. By Golnaz Hashemzadeh Bonde. Translated by Elizabeth Clark Wessel. Mariner Books; 208 pages; \$15.99. Fleet; £14.99

OLD clichés die hard—and sell well. While Nordic artists profit abroad from lucrative stereotypes involving sweaters, saunas and snowdrifts, at home their societies are changing fast. Around one in 100 Swedes, for instance, has Iranian heritage, one component of a population with a “foreign background” (the state’s demographic term) that amounts to 24% of the total. Many Swedish writers strive to capture this complexity, even if publishers elsewhere still prefer morose blonde sleuths. The arrival, in translation, of a Swedish-Iranian novelist is a welcome chance to cross the bridge into another version of Scandinavia.

“What We Owe”, the second novel by Golnaz Hashemzadeh Bonde, an economist and social entrepreneur, is above all a family story. It knots the experiences of three generations of women into a taut and moving account of grief, a legacy handed down from mother to daughter “as sure as the raven-black hair”. Yet the ordeals of persecution and exile shape every scene in the family’s thwarted quest to find “both freedom and roots”. Public upheavals frame the private pain.

Shocked by a terminal cancer diagnosis in her early 50s, Nahid—the novel’s narrator—looks back on her childhood in Iran, her flight to Sweden, and her troubled relationships with her mother, violent husband Masood and alienated daughter Aram. “Such a beautiful place,” Nahid says of prosperous, placid Sweden, “and I have almost no good memories of it.” Her new starts never healed her old wounds. ▶▶



▶ One of seven daughters in “a family with no sons”, she won a place at medical school; then came the revolt against the shah, which “fell upon us like a rain of stars”. Soon the Islamic revolution becomes a tyranny that wrecks the dreams of Nahid and her secular comrades. Her beloved sister Noora dies as police crush a demonstration. Nahid and Masood flee; a half-life of regret and recrimination begins. “We didn’t escape,” Nahid laments, as she reckons the cost of their displacement.

“What We Owe” refuses sentimental consolations. Nahid becomes a nurse, but

Aram protests that “we never got to have it good”. The “profound shame” of exile endures: “Fleeing sits in your blood...and like a tumour it grows inside you.” Worse, “everything is passed down” to the children. Terse, urgent prose—ably channelled by Elizabeth Clark Wessel, the translator—gives pace and heft to a novel of contagious trauma. Still, Ms Hashemzadeh Bonde lets in a closing ray of hope. The baby Aram is expecting may allow mother and daughter to “create something beautiful”. Perhaps another generation will, at last, enjoy that “Swedish peace”. ■

mean that—to a surprising extent for a production line in a totalitarian state—individual artists are able, even encouraged, to develop personal styles. Their “aesthetic priorities” are distinctive, says B.G. Muhn of Georgetown University, curator of the Gwangju show.

Take the landscapes of Jong Yong Man (see below), one of the most famous painters in a country where the best-known are household names. His depiction of Mount Kumgang, with its striking use of negative space and accomplished evocation of cloud and mist, contrasts starkly with Choe Chang Ho’s more literal rendering of the same peaks. True, much North Korean art glorifies Mr Kim’s regime, but not all is simplistic propaganda. The artists, Mr Muhn says, cling to “human dignity”.

This mix of skill and kitsch has won admirers overseas. Exhibitions have been staged in London, Vienna and Assen in the Netherlands. An art-tourism industry has sprung up along the Chinese border, in cities such as Dandong, where visitors have sampled North Korean food, watched folk dancers and bought relatively inexpensive North Korean paintings. A Mansudae-themed gallery operates in Beijing’s hip 798 Art Zone.

But this nascent cultural exchange has hit a formidable obstacle, linked to another North Korean specialism—monumental sculpture. Nurtured on an insatiable domestic appetite for gigantic bronzes, Mansudae’s sculptors have created statues across Asia and Africa. They include the giant African Renaissance Monument in Senegal and the Heroes’ Acre war memorial in Namibia. Recently, however, these activities have come under scrutiny by the UN, suspected of being a front for sanctions-busting—resulting in the UN Security Council blacklisting Mansudae.

Mr Muhn could put on the show in Gwangju only because the paintings came from collectors, not directly from the factory (the sanctions apply only to current sales). Likewise the gallery in Beijing says it is independently owned and sells work from a private collection. Art can be a tool of diplomacy, but it can be a victim, too. ■

North Korean art

Mist on the mountains

GWANGJU

The tangled connections between art and diplomacy

WHEN South Korea’s president, Moon Jae-in, visited North Korea last month, he was given a tour of the Mansudae Art Studio, an enormous complex in Pyongyang where most North Korean art is produced. At what is one of the largest art factories in the world, around 1,000 artists and 3,000 assistants churn out ornaments for Kim Jong Un’s regime. Mr Moon’s eye was drawn to a series of paintings of Pungsan hunting dogs; afterwards Mr Kim sent his counterpart a pair of the animals as a gift. In a guest book, Mr Moon wrote: “I wish that art would become a bridge connecting South and North Korea as one.”

That mission has already begun, albeit in fraught circumstances. At the Gwangju Biennale, a few hours south of Seoul, 22 paintings produced at Mansudae are on display in a groundbreaking exhibition. It consists entirely of *Chosonhwa*, the traditional North Korean technique of ink-wash painting. Other forms of art, such as oil painting and printmaking, are common in North Korea, but *Chosonhwa* has long been the country’s most revered form. The

works include portraits, industrial scenes and landscapes that evoke classical Chinese ink-painting.

This kind of figurative work is a far cry from *Dansaekhwa*, the South Korean minimalist movement that has achieved widespread appeal. In the North, by contrast, there is no avant-garde or abstract tradition. Still, in some ways the show confounds presumptions about socialist realism, a genre to which some of the paintings loosely belong.

The heroic studies are intimate as well as dramatic. The artists reputedly immerse themselves in the activity they aim to capture—building a dam, for example—before painting it. The result is an unexpected emphasis on detail, a daintiness that is also inherent in the medium. Painted on *hanji*, a traditional paper made from mulberry bark, *Chosonhwa* works are delicate, a quality that offsets the ruggedness of the subjects. As with Chinese calligraphy or ink-wash landscapes, the paper is too thin to absorb more than a single brush-stroke.


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% change on year ago

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	latest	qtr* 2018†	2018†		latest	2018†		latest 12 months, \$bn	% of GDP 2018†			% of GDP 2018†	Oct 10th
United States	+2.9 Q2	+4.2	+2.9	+4.9 Aug	+2.7 Aug	+2.5	3.7 Sep	-442.8 Q2	-2.6	-4.8	3.23	-	-
China	+6.7 Q2	+7.4	+6.6	+6.1 Aug	+2.3 Aug	+2.1	3.8 Q2§	+67.8 Q2	+0.5	-3.6	3.42§§	6.92	6.63
Japan	+1.3 Q2	+3.0	+1.1	+0.6 Aug	+1.3 Aug	+0.9	2.4 Aug	+193.8 Aug	+3.8	-3.7	0.18	113	113
Britain	+1.2 Q2	+1.6	+1.3	+1.4 Aug	+2.7 Aug	+2.4	4.0 Jun††	-97.5 Q2	-3.4	-1.7	1.66	0.76	0.76
Canada	+1.9 Q2	+2.9	+2.3	+3.2 Jul	+2.8 Aug	+2.3	5.9 Sep	-53.4 Q2	-2.6	-2.3	2.54	1.30	1.26
Euro area	+2.1 Q2	+1.5	+2.1	-0.1 Jul	+2.1 Sep	+1.7	8.1 Aug	+471.0 Jul	+3.4	-0.7	0.55	0.87	0.85
Austria	+2.3 Q2	-4.0	+2.9	+4.8 Jul	+2.2 Aug	+2.1	4.8 Aug	+10.9 Q2	+2.2	-0.3	0.57	0.87	0.85
Belgium	+1.4 Q2	+1.6	+1.5	-2.3 Jul	+2.3 Sep	+2.2	6.5 Aug	+0.1 Jun	-0.3	-1.1	0.93	0.87	0.85
France	+1.7 Q2	+0.6	+1.7	+1.6 Aug	+2.2 Sep	+2.1	9.3 Aug	-15.4 Aug	-0.9	-2.6	0.88	0.87	0.85
Germany	+1.9 Q2	+1.8	+1.9	-0.4 Aug	+2.3 Sep	+1.8	3.4 Aug‡	+317.0 Aug	+7.9	+1.7	0.55	0.87	0.85
Greece	+1.8 Q2	+0.9	+2.0	+1.4 Aug	+1.1 Sep	+0.9	19.1 Jun	-2.5 Jul	-1.2	-0.2	4.47	0.87	0.85
Italy	+1.2 Q2	+0.8	+1.1	-0.8 Aug	+1.5 Sep	+1.4	9.7 Aug	+58.4 Jul	+2.4	-2.0	3.54	0.87	0.85
Netherlands	+3.1 Q2	+3.3	+2.8	+3.1 Aug	+1.9 Sep	+1.7	4.8 Aug	+94.3 Q2	+10.1	+1.3	0.65	0.87	0.85
Spain	+2.7 Q2	+2.3	+2.7	+1.2 Aug	+2.2 Sep	+1.8	15.2 Aug	+17.6 Jul	+1.1	-2.7	1.46	0.87	0.85
Czech Republic	+2.7 Q2	+2.9	+3.0	+1.9 Aug	+2.3 Sep	+2.3	2.7 Aug‡	+1.5 Q2	+0.8	+1.0	2.17	22.4	22.1
Denmark	+1.5 Q2	+1.0	+1.3	-4.4 Aug	+0.6 Sep	+1.1	3.9 Aug	+20.3 Aug	+7.2	-0.7	0.50	6.47	6.34
Norway	+3.3 Q2	+1.5	+1.6	-0.7 Aug	+3.4 Sep	+2.3	4.0 Jul††	+28.0 Q2	+7.4	+5.4	2.06	8.20	7.98
Poland	+5.1 Q2	+4.1	+4.6	+5.0 Aug	+1.8 Sep	+1.8	5.8 Sep§	-0.7 Jul	-0.7	-2.0	3.33	3.74	3.66
Russia	+1.9 Q2	na	+1.6	+2.8 Aug	+3.4 Sep	+2.9	4.6 Aug§	+89.3 Q3	+5.1	+0.3	8.98	66.5	58.5
Sweden	+2.4 Q2	+3.1	+2.7	+3.0 Aug	+2.0 Aug	+2.0	6.1 Aug§	+13.4 Q2	+3.8	+0.9	0.71	9.10	8.12
Switzerland	+3.4 Q2	+2.9	+2.7	+8.7 Q2	+1.0 Sep	+1.0	2.5 Sep	+71.7 Q2	+9.9	+0.9	0.17	0.99	0.98
Turkey	+5.2 Q2	na	+3.8	+7.9 Jul	+24.5 Sep	+15.3	10.2 Jun§	-54.6 Jul	-5.7	-3.4	19.99	6.03	3.74
Australia	+3.4 Q2	+3.5	+3.2	+3.4 Q2	+2.1 Q2	+2.1	5.3 Aug	-41.8 Q2	-2.6	-0.9	2.77	1.41	1.29
Hong Kong	+3.5 Q2	-0.9	+3.4	+1.6 Q2	+2.3 Aug	+2.2	2.8 Aug††	+13.8 Q2	+4.3	+2.0	2.53	7.84	7.81
India	+8.2 Q2	+7.8	+7.4	+6.6 Jul	+3.7 Aug	+4.6	6.4 Aug	-49.5 Q2	-2.4	-3.6	8.03	74.2	65.4
Indonesia	+5.3 Q2	na	+5.2	+4.9 Aug	+2.9 Sep	+3.4	5.1 Q1§	-24.2 Q2	-2.6	-2.6	8.46	15,202	13,518
Malaysia	+4.5 Q2	na	+5.0	+2.5 Jul	+0.2 Aug	+0.9	3.4 Jul§	+11.2 Q2	+2.6	-3.3	4.12	4.15	4.23
Pakistan	+5.4 2018**	na	+5.4	+0.5 Jul	+5.1 Sep	+5.4	5.9 2015	-18.1 Q2	-5.8	-5.4	11.00†††	134	105
Philippines	+6.0 Q2	+5.3	+6.2	+8.8 Aug	+6.7 Sep	+5.2	5.4 Q3§	-5.1 Jun	-1.5	-2.7	7.98	54.2	51.2
Singapore	+3.9 Q2	+0.6	+3.5	+3.3 Aug	+0.7 Aug	+0.6	2.1 Q2	+64.6 Q2	+19.7	-0.7	2.64	1.38	1.36
South Korea	+2.8 Q2	+2.4	+2.8	+2.5 Aug	+1.9 Sep	+1.6	4.0 Aug§	+76.4 Aug	+4.5	+1.0	2.41	1,134	1,145
Taiwan	+3.3 Q2	+1.6	+2.6	+1.3 Aug	+1.7 Sep	+1.7	3.7 Aug	+84.5 Q2	+12.9	-0.7	0.92	31.0	30.4
Thailand	+4.6 Q2	+4.1	+4.1	+0.7 Aug	+1.3 Sep	+1.2	1.0 Aug§	+49.0 Q2	+9.6	-2.9	2.67	33.0	33.4
Argentina	-4.2 Q2	-15.2	-2.3	-7.0 Aug	+34.2 Aug	+33.6	9.6 Q2§	-35.4 Q2	-4.3	-5.6	11.26	37.4	17.5
Brazil	+1.0 Q2	+0.7	+1.5	+2.0 Aug	+4.5 Sep	+3.8	12.1 Aug§	-15.5 Aug	-1.0	-7.1	8.78	3.75	3.18
Chile	+5.3 Q2	+2.8	+3.9	-1.8 Aug	+3.1 Sep	+2.4	7.3 Aug§††	-3.6 Q2	-2.0	-2.0	4.54	684	633
Colombia	+2.5 Q2	+2.3	+2.7	+3.5 Jul	+3.2 Sep	+3.3	9.2 Aug§	-10.6 Q2	-2.8	-1.9	7.01	3,093	2,954
Mexico	+2.6 Q2	-0.6	+2.1	+1.3 Jul	+5.0 Sep	+4.8	3.3 Aug	-19.7 Q2	-1.8	-2.3	8.17	19.1	18.6
Peru	+5.4 Q2	+12.5	+4.1	+1.0 Jul	+1.3 Sep	+1.4	6.3 Aug§	-3.2 Q2	-1.8	-3.1	na	3.33	3.27
Egypt	+5.4 Q2	na	+5.4	+5.3 Jul	+16.0 Sep	+17.0	9.9 Q2§	-6.0 Q2	-2.4	-9.7	na	17.9	17.6
Israel	+3.9 Q2	+1.8	+3.6	+5.5 Jul	+1.2 Aug	+1.1	4.0 Aug	+7.5 Q2	+1.9	-2.9	2.10	3.63	3.51
Saudi Arabia	-0.9 2017	na	+1.5	na	+2.3 Aug	+2.6	6.1 Q1	+44.4 Q2	+7.3	-3.5	na	3.75	3.75
South Africa	+0.4 Q2	-0.7	+0.7	+1.8 Jul	+4.9 Aug	+4.8	27.2 Q2§	-12.1 Q2	-3.5	-3.6	9.23	14.7	13.9

Source: Haver Analytics. *% change on previous quarter, annual rate. †The Economist poll or 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.

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Markets

	Index Oct 10th	% change on one week	% change on Dec 29th 2017	
			in local currency	in \$ terms
United States (DJIA)	25,598.7	-4.6	+3.6	+3.6
China (Shanghai Comp)	2,725.8	-3.4	-17.6	-22.0
Japan (Nikkei 225)	23,506.0	-2.5	+3.3	+2.0
Britain (FTSE 100)	7,145.7	-4.9	-7.1	-10.6
Canada (S&P TSX)	15,517.4	-3.5	-4.3	-6.5
Euro area (FTSE Euro 100)	1,132.0	-4.4	-6.4	-10.1
Euro area (EURO STOXX 50)	3,266.9	-4.1	-6.8	-10.4
Austria (ATX)	3,252.8	-4.2	-4.9	-8.6
Belgium (Bel 20)	3,575.3	-4.5	-10.1	-13.6
France (CAC 40)	5,206.2	-5.2	-2.0	-5.8
Germany (DAX)*	11,712.5	-4.7	-9.3	-12.9
Greece (Athex Comp)	625.8	-6.1	-22.0	-25.1
Italy (FTSE/MIB)	19,719.0	-4.9	-9.8	-13.3
Netherlands (AEX)	528.0	-4.5	-3.0	-6.8
Spain (IBEX 35)	9,162.9	-2.1	-8.8	-12.3
Czech Republic (PX)	1,097.2	-0.9	+1.8	-2.9
Denmark (OMXCB)	820.2	-8.9	-11.5	-15.1
Hungary (BUX)	36,821.1	-1.1	-6.5	-13.6
Norway (OSEAX)	1,044.6	-2.5	+15.2	+15.1
Poland (WIG)	56,830.2	-4.0	-10.8	-16.8
Russia (RTS, \$ terms)	1,143.4	-4.4	-1.0	-1.0
Sweden (OMXS30)	1,595.1	-4.2	+1.2	-8.1
Switzerland (SMI)	8,892.9	-3.1	-5.2	-6.6
Turkey (BIST)	94,440.7	-2.8	-18.1	-48.4
Australia (All Ord.)	6,163.8	-1.6	-0.1	-7.9
Hong Kong (Hang Seng)	26,193.1	-3.3	-12.5	-12.7
India (BSE)	34,760.9	-3.4	+2.1	-11.0
Indonesia (IDX)	5,820.7	-0.8	-8.4	-17.6
Malaysia (KLSE)	1,735.2	-3.4	-3.4	-5.6
Pakistan (KSE)	38,792.1	-4.4	-4.1	-14.8
Singapore (STI)	3,131.5	-4.2	-8.0	-10.6
South Korea (KOSPI)	2,228.6	-3.5	-9.7	-13.6
Taiwan (TWI)	10,466.8	-3.7	-1.7	-4.5
Thailand (SET)	1,721.8	-1.2	-1.8	-1.1
Argentina (MERV)	28,549.8	-11.3	-5.0	-52.3
Brazil (BVSP)	83,679.1	+0.5	+9.5	-5.6
Chile (IGPA)	26,658.9	-1.8	-4.7	-11.1
Colombia (IGBC)	12,409.0	-1.5	+8.1	+7.1
Mexico (IPC)	48,136.2	-1.8	-2.5	+1.8
Peru (S&P/BVL)*	19,211.3	-3.1	-3.8	-5.8
Egypt (EGX 30)	13,621.2	-4.8	-9.3	-9.9
Israel (TA-125)	1,450.5	-3.3	+6.3	+1.8
Saudi Arabia (Tadawul)	7,834.8	-2.2	+8.4	+8.4
South Africa (JSE AS)	52,813.4	-4.3	-11.2	-23.5

Maritime transport

Global seaborne trade rose by 4% in volume terms in 2017, according to UNCTAD, the fastest growth rate in five years. Expansion was largely driven by increased industrial production in emerging markets, which account for 60% of shipped exports. Rising trade was accompanied by a 3.3% increase in maritime-fleet capacity. UNCTAD thinks the prospects are bright, too. Autonomous ships could boost efficiency in the industry, though job losses and cyber-security concerns may slow adoption of the technology. Despite tensions between America and China, seaborne trade is forecast to rise by another 4% in 2018, and then by 3.8% annually until 2023.

Worldwide, % change on a year earlier



Source: UNCTAD

Other markets

	Index Oct 10th	% change on one week	% change on Dec 29th 2017	
			in local currency	in \$ terms
United States (S&P 500)	2,785.7	-4.8	+4.2	+4.2
United States (NASComp)	7,422.1	-7.5	+7.5	+7.5
China (Shenzhen Comp)	1,383.1	-4.1	-27.2	-31.1
Japan (Topix)	1,763.9	-2.2	-3.0	-4.2
Europe (FTSEurofirst 300)	1,443.1	-4.2	-5.7	-9.3
World, dev'd (MSCI)	2,089.1	-4.3	-0.7	-0.7
Emerging markets (MSCI)	985.7	-4.8	-14.9	-14.9
World, all (MSCI)	500.5	-4.4	-2.4	-2.4
World bonds (Citigroup)	917.4	-0.3	-3.4	-3.4
EMBI+ (JPMorgan)	780.8	-1.4	-6.6	-6.6
Hedge funds (HFRX)	1,245.5 [§]	-1.4	-2.4	-2.4
Volatility, US (VIX)	23.0	+11.6	+11.0	(levels)
CDSs, Eur (iTRAXX) [†]	71.0	+3.0	+57.4	+51.3
CDSs, N Am (CDX) [†]	61.8	+4.2	+25.9	+25.9
Carbon trading (EU ETS) €	19.5	-8.8	+139.4	+130.0

Sources: IHS Markit; Thomson Reuters. *Total return index. [†]Credit-default-swap spreads, basis points. [§]Oct 9th.

Indicators for more countries and additional series, go to: Economist.com/indicators

The Economist commodity-price index

2005=100

	Oct 2nd	Oct 9th*	% change on	
			one month	one year
Dollar Index				
All Items	139.8	139.2	+1.3	-5.0
Food	143.3	144.0	+2.2	-3.8
Industrials				
All	136.1	134.2	+0.3	-6.2
Nfa [†]	125.5	123.1	-8.2	-4.4
Metals	140.6	139.0	+4.0	-6.9
Sterling Index				
All items	195.8	193.4	+0.6	-4.1
Euro Index				
All items	150.4	151.0	+2.3	-2.1
Gold				
\$ per oz	1,207.1	1,188.2	-0.2	-8.1
West Texas Intermediate				
\$ per barrel	75.2	75.0	+8.2	+47.2

Sources: Bloomberg; CME Group; Cotlook; Darmann & Curl; FT; ICCO; ICO; ISO; Live Rice Index; LME; NZ Wool Services; Thompson Lloyd & Ewart; Thomson Reuters; Urner Barry; WSJ. *Provisional [†]Non-food agricultural.

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Heartsong

Charles Aznavour, French-Armenian troubadour, died on October 1st, aged 94

FOR a small guy, Charles Aznavour liked his stage to be big. Really big. He would slip through the curtains at the back and slide into the spotlight, left hand in his pocket, ready to face his audience head-on. Wearing a black rollneck or a skinny tie, he projected an almost jaunty insouciance with his little crooked smile. But his fans knew he was a survivor, someone who got knocked down a lot but always rose again—someone a lot like them. As he lifted the microphone, his face showed a defiant chin, a circumflex of dark eyebrows, closed eyes. For a moment their lids were as white and as curved as a beach in Cuba (one of the many countries that broadcast hours of his music in the days after he died). His dark eyelashes fluttered like palm trees. And then came that voice, crashing on to the heart's shore.

Hier encore, j'avais vingt ans...

Yesterday when I was young

The taste of life was sweet like rain upon my tongue,

I teased at life as if it were a foolish game

The way an evening breeze would tease a candle flame

He was born Shahnour Vaghinag Aznavourian near the Latin Quarter in Paris in 1924, and christened “Charles” by a French nurse who could not pronounce his name. His Armenian parents had taken refuge

there while they waited for visas to America. Meanwhile, his father took over a restaurant that featured live music and offered free food to the less well-off. When the business inevitably went bust his mother took in work as a seamstress. But it was singing and performing for other émigrés that consumed the family. Both parents had been trained in the theatre. He made his inadvertent stage debut at three when he wandered in from the wings towards the lights.

At the age of nine he heard Maurice Chevalier sing *Donnez-moi la main mam'zelle et ne dites rien* (“Give me your hand, miss, and say nothing”). And so he set his young heart on being a singer. But first he took acting classes at l'École des Enfants du Spectacle, known as the Collège Rognoni after the elderly member of the Comédie Française who had founded it the year that Mr Aznavour was born.

His school years, already rickety as he tried to combine homework with touring in provincial theatres, came to an end with the start of the second world war when he was 15. He learned to smoke cigarettes backstage, all the better to fit into life in the theatre. And after the fall of France in 1940, as he later told the *Paris Review*, he grew adept at selling occupying German soldiers black-market lingerie and chocolate

as well as bicycles abandoned at railway stations by fleeing Parisians.

After the war it was Edith Piaf who encouraged him to write songs, and included several of his works in her concert repertoire. Soon he began touring himself. Inevitably, given the age, he also tried the cinema. He worked with some of the great directors, among them François Truffaut in *Tirez sur le pianiste* (“Shoot the Piano Player”). But acting was never his thing. What really brought him to life was songs and songwriting.

Troubadour is a French word. In the high Middle Ages, travelling singer-poets wrote of chivalry and courtly love. He was the 20th-century version—a troubadour of transience, a poet of impermanence. Like many people born in Europe between the mid-1920s and the mid-1930s, he learned at far too tender an age that the difference between being OK and not OK, between safety and death, between peace and war, is mostly wafer thin. Piaf, who persuaded him to have a nose job and then told him she preferred him as he had been before, famously regretted nothing. He regretted plenty. You could hear it in his words. “My shortcomings are my voice, my height (he measured just five foot three inches, 1.6 metres), my gestures, my lack of education, my frankness and my lack of personality.”

His lyrics, written for more than 1,000 songs that sold well over 100m albums, told an even more plaintive story of longing and loss. In *Reste* (“Stay”), he implores a lover, “satiated, breathless, languid, dizzy”, to stay a while, their limbs entwined, in the warmth of the night. “I lost, and so I drank”, he explains in *J'ai bu*. “You never understood that I was lost, and so I drank.” Always that regret, that sense of loss of friends and lovers of the past, and even, as he sang fondly in *Mes emmerdes*, of “my troubles”.

Bob Dylan admired him (“I saw him in 60-something at Carnegie Hall, and he just blew my brains out,” he said in 1987), but many Americans never really took to the French crooner, perhaps because his lyrics were so execrably translated or perhaps because they regarded his songs as schmaltzy rather than soulful.

But the French, the Armenians (for whom he sang and raised money after a deadly earthquake in 1988), the Cubans and the French-speaking north Africans never stopped loving the little guy, the *chanteur* who recalled their fleeting youth, their lost selves. He would have smiled his little crooked smile had he heard that at a service of national homage, attended by three French presidents, Emmanuel Macron stood by the flag-draped coffin placed in front of Napoleon's tomb at Les Invalides, compared his literary gifts to those of Guillaume Apollinaire and declared: “In France, poets never die.” ■



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