

The Economist

DECEMBER 2ND-8TH 2017

Ireland, Brexit and borders

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Let Beijing grow bigger

Cheesonomics: curd your enthusiasm

Yemen

The war the world ignores





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**On the cover**

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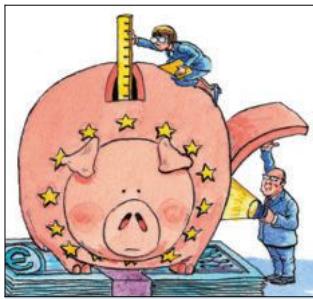
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Politics



More than 300 people were slain by jihadists who attacked a mosque attended by Sufi Muslims in Egypt's Sinai peninsula. Up to 30 terrorists armed with automatic rifles and flying an Islamic State banner mounted the assault in a region that is more used to attacks on Coptic Christian churches. An is-affiliated group in Sinai has a record of persecuting Sufis, beheading a 100-year-old cleric late last year. Abdel-Fattah al-Sisi, Egypt's president, ordered his armed forces to use any means necessary to restore order.

Uhuru Kenyatta was sworn in for a second term as Kenya's president. Two people were killed in opposition protests against his inauguration. Raila Odinga, who lost to Mr Kenyatta in the recent disputed election and does not recognise the result, upped the ante by saying he would take an oath of office on December 12th, Kenya's independence day.

A jury in Washington, DC, convicted Ahmed Abu Khattala of abetting the attack on the American consulate in Benghazi in 2012, but found him not guilty of four murders, including that of the American ambassador to Libya. Mr Khattala had organised the attack, but did not personally carry out any of the killings.

A spat between allies

Donald Trump tweeted that Theresa May, the British prime minister, should focus on Islamic terrorism in Britain, after her spokesman criticised the president for retweeting inflammatory videos posted

by a British far-right activist to stir up hatred against Muslims. Mr Trump is the first modern American president to circulate material from extremists.

Mick Mulvaney started work as the interim director of America's **Consumer Financial Protection Bureau**, after President Trump appointed him. A longstanding critic of the watchdog he now runs, he promptly imposed a freeze on any new regulations. There had been some confusion about who was running the agency when the outgoing director tried to appoint a different successor. A judge scotched that idea.

In New York the trial began of a Turkish banker linked to the alleged purchase of Iranian oil and gas in violation of **American sanctions** in a case that stretches to the upper echelons of the Turkish government. Recep Tayyip Erdogan, the Turkish president, has denounced the trial as an attack on his country, a further blow to relations between Washington and Ankara. One of the original key defendants pleaded guilty and has agreed to spill the beans to prosecutors.

Another poke in the eye

North Korea tested a missile apparently capable of hitting anywhere in America. It claimed that this fulfilled its goal of developing a working nuclear deterrent, and promised to be a responsible nuclear power.



Mount Agung, a **volcano** on the Indonesian island of Bali, started erupting, forcing the evacuation of more than 100,000 people and the closure of the local airport. Thousands of tourists took the

opportunity to leave the island when flights resumed.

Victoria became the first state in **Australia** to pass an act allowing doctors to help people with terminal illnesses to commit suicide. The law comes into force in 2019.

Nguyen Van Hoa, a **Vietnamese** blogger, was sentenced to seven years in prison for publicising protests about a chemical spill off the coast of central Vietnam last year.

A court in southern China sentenced a **Taiwanese** activist, Lee Ming-che, to five years in prison for "subverting state power". He was accused of helping the families of jailed dissidents in China and circulating critical comments about the Chinese government online. Taiwan's presidential office issued a statement saying the case had "seriously damaged" relations between the island and China.

A **Chinese general**, Zhang Yang, killed himself at his home in Beijing while under investigation for corruption. He had served as a director of the army's political department, a powerful body responsible for ensuring the loyalty of the armed forces to the Communist Party.

Seeking friends

The German chancellor, Angela Merkel, was due to meet leaders of the Social Democrats in the hope of opening talks on a new "grand coalition" that could give **Germany** a new government following elections on September 24th. Her earlier attempts at coalition-making with the Greens and the Free Democrats recently fell apart.

Ireland's deputy prime minister, Frances Fitzgerald, resigned rather than see her minority government collapse over a scandal involving a police whistleblower.

New figures showed that net migration in **Britain** dropped to 230,000 in the year to June. That is 106,000 lower than the

same period in the previous year. Since the Brexit vote immigration from European Union countries has dropped consistently, while emigration to the EU has increased. Net migration from the EU fell from 189,000 to 107,000.

Slobodan Praljak, a former **Bosnian Croat** militia commander, died after swallowing what he said was poison in a UN courtroom in The Hague after losing an appeal against his 20-year prison sentence.

Office plans

Mexico's president, Enrique Peña Nieto, chose his finance secretary, José Antonio Meade, to be the candidate of the ruling Institutional Revolutionary Party in next year's presidential election, ending months of speculation. Mr Peña cannot run because Mexican presidents are limited to a single six-year term.



In a controversial ruling, **Bolivia's** constitutional court scrapped term limits for presidents, paving the way for Evo Morales, the socialist president, to seek a fourth term in 2019. Only last year 51% of Bolivian voters rejected this idea in a referendum. Thousands of Mr Morales's supporters marched in favour of the constitutional change; and thousands of people demonstrated against it.

A civil court found **El Salvador's** former president, Mauricio Funes, guilty of illicit enrichment and ordered him and his son to return \$420,000 to the government. The two fled to Nicaragua when prosecutors started investigating them last year. Daniel Ortega, Nicaragua's president, granted them asylum. ➤

Business

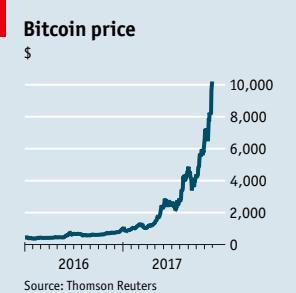
Xavier Rolet stepped down with immediate effect as chief executive of the **London Stock Exchange**. The LSE had announced that Mr Rolet was to stand down at the end of next year, but the resulting row between the board and The Children's Investment Fund, an activist investor that wanted him to stay, generated what Mr Rolet described as "a great deal of unwelcome publicity". Donald Brydon, the LSE's chairman and the target of TCI's ire, is also to leave his job, in 2019.

All seven of Britain's biggest banks passed the annual round of **stress tests** for the first time since the system's inception in 2014. The tests assess how the banks would fare in an adverse situation under a range of factors, such as British house prices falling by a third. Mark Carney, the governor of the Bank of England, said the banks could cope with a "disorderly Brexit".

Not too hot, not too cold
Jerome Powell gave an assured performance in the Senate at a hearing to confirm his appointment as chairman of the Federal Reserve. He said that he would provide continuity at the central bank and supports its current regulatory regime and the gradual raising of interest rates.

South Korea's central bank raised its benchmark interest rate for the first time in six years, by a quarter of a percentage point, to 1.5%. It is the first big Asian country to raise rates since 2014. South Korea's growth forecast has been revised up for the year, thanks in part to a booming semiconductor industry; so has the outlook for inflation.

Siemens chose the Frankfurt stock exchange over New York to list its health-care business next year. The German engineering giant is expected to sell up to 25% of the business, which would make it Germany's biggest IPO since 1996.



The price of a **bitcoin** passed \$10,000 for the first time (and then \$11,000 before slumping by 20% in a matter of hours). Undeterred by warnings that the electronic currency is a bubble waiting to burst, mainstream investors have piled into bitcoin in the hope of ever greater returns.

America stepped up the pressure on China over **trade**, submitting a formal document to the World Trade Organisation setting out its reasons why China should be denied "market economy" status, a designation it has long sought. Without that tag China can be subjected to higher duties on its exports. Earlier, America opened another investigation into China's trade practices, this time over aluminium.

The University of Oxford launched the first bond in its 900-year history, aiming to

raise £250m (\$335m) through the issue of a 100-year note. Oxford has not been immune from the squeeze on government funding for education. Some of its peers have already turned to the bond markets to supplement funding.

It's just not been Uber's year
A judge delayed the start of a trial in which **Uber** is accused of poaching technology from Waymo, the self-driving car unit owned by Google's parent company, Alphabet, after a letter emerged alleging that Uber operated a clandestine office dedicated to stealing trade secrets. The letter is based on claims made by the firm's former head of global intelligence and was sent to management earlier this year. The judge lambasted Uber for not bringing it to his attention. Uber said the claims came from an unhappy employee.

Meredith, a publisher of domestic-lifestyle magazines, such as *Better Homes & Gardens*, agreed to buy **Time Inc** for \$2.8bn. As well as its signature news weekly, Time counts *People* and *Sports Illustrated* among its titles. Meredith's deal is backed in part by the Koch brothers, whose largesse funds a raft of conservative organisations.

Meredith stressed that the Kochs will have "no influence" on editorial operations.

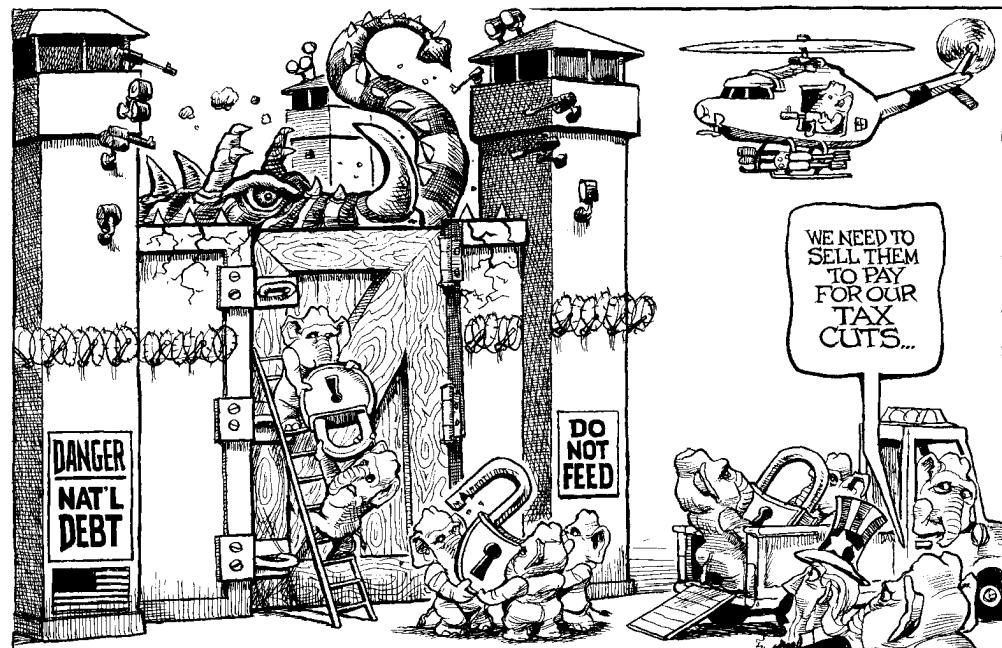
Johnson & Johnson announced the details of a study to find out whether a new experimental **global vaccine for HIV** works. The large-scale study, known as "Imbokodo", will evaluate whether the exploratory vaccine is able to reduce HIV infection in a test on 2,600 sexually active women across southern Africa. Scientists have recently redoubled their efforts to find a vaccine for HIV.

Angry investors

Rovio Entertainment's share price struggled to recover after plunging by more than 20% following a surprise quarterly loss. It was the first earnings report from the Finnish maker of "Angry Birds", a mobile game, since floating on the stockmarket in September.

A new record was set on **Cyber Monday** for daily sales from shopping in America. Consumers spent \$6.6bn, the most on any day over the Thanksgiving break. Almost \$1.6bn of the orders came over mobile phones.

Other economic data and news can be found on pages 80-81





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ROYAL SALUTE

WORLD POLO

The war the world ignores

A pointless conflict has caused the world's worst humanitarian crisis



YEMEN lost the title of *Arabia Felix*, or “Fortunate Arabia”, long ago. It has suffered civil wars, tribalism, jihadist violence and appalling poverty. But none of this compares with the misery being inflicted on the country today by the war between a Saudi-led coalition and the Houthis, a Shia militia backed by Iran.

The UN reckons three-quarters of Yemen’s 28m people need some kind of humanitarian aid. Mounting rubbish, failing sewerage and wrecked water supplies have led to the worst cholera outbreak in recent history. The country is on the brink of famine. The economy has crumbled, leaving people with impossible choices. Each day the al-Thawra hospital in Hodeida must decide which of the life-saving equipment to run with what little fuel it has.

Perhaps the worst of it is that much of the world seems unperturbed (see Briefing), calloused by the years of bloodshed in Syria and other parts of the Middle East, and despairing of its ability to effect change. To be cynical, Yemen is farther away from Europe than Syria is; its wretched people do not, on the whole, wash up in the West seeking asylum.

Yet the world ignores Yemen at its peril. Set aside for a moment the obligation to relieve suffering and protect civilians. Hard security interests are also at stake. The world can ill afford another failed state—a new Afghanistan or Somalia—that becomes a breeding-ground for global terrorism. Yemen, moreover, dominates the Bab al-Mandab strait, a choke-point for ships using the Suez canal. Like it or not, the West is involved. The Saudi-led coalition is fighting with Western warplanes and munitions. Western satellites guide its bombs.

Slippery Saleh

Like so much else in the Arab world, Yemen’s agony can be traced to the Arab-spring uprisings of 2011. Mass protests, a near-assassination of the then president, Ali Abdullah Saleh, and a shove from neighbouring petro-states forced him to step down in 2012 in favour of his vice-president, Abd Rabbo Mansour Hadi. A draft constitution in 2015 proposed a federal system and a parliament split between northerners and southerners. But the Houthi rebels, who had fought Mr Saleh, rejected it. The Houthis, who follow the Zaydi branch of Shiism (as do perhaps 40% of Yemenis), complained that, among other things, the constitution stuck them in a region with few resources and without access to the sea.

Now allied with Mr Saleh, who spotted an opportunity for a comeback, the Houthis ousted Mr Hadi from Sana'a, the capital, and chased him all the way to Aden. Saudi Arabia gathered a coalition of Arab states and local militias—among them Islamists, Salafists and southern separatists—and forced the Houthis to retreat partway. For the past year, the battle-lines have barely moved. The Houthis are too weak to rule over Yemen but too powerful for Saudi Arabia to defeat.

As a result, Yemenis have become the pawns in the regional

power-struggle between Saudi Arabia and Iran. Alarmed by Iran’s spreading influence, the Saudis have begun to speak of the Houthis rather as Israelis refer to the Lebanese militia, Hezbollah: a dangerous Iranian proxy army on their border. Indeed, the Saudis have much to learn from Israel’s experience. Even with the most sophisticated weapons, it is all but impossible to defeat a militia that is well entrenched in a civilian population. The stronger side is blamed for the pain of those civilians. For the weaker lot, survival is victory.

So, even though the Houthis are primarily responsible for starting the war and capable of great cruelty, it is the Saudis who are accused of war crimes. Often the accusation is justified. In their air campaign, they have been careless and incompetent at best, and probably cynical. Human-rights groups say bombs have been aimed at schools, markets, mosques and hospitals. And the blockade raises suspicion that the Saudis are using food as a tool of war.

The longer the war goes on, the more Saudi Arabia’s Western allies are complicit in its actions. President Donald Trump has given Saudi Arabia carte blanche to act recklessly (see page 39). He may think it is all part of confronting Iran; or he may want to support the liberalising reforms of the Saudi crown prince, Muhammad bin Salman; or he may hope to profit by selling the Saudis “lots of beautiful military equipment”. Whatever the case, he is damaging America’s interests. Precisely because of the importance of Saudi Arabia—the world’s biggest oil exporter and home to Islam’s two holiest places—the West should urge restraint on the impetuous prince and help disentangle him from an unwinnable war.

How? Peace talks led by the UN have begun with the demand that the Houthis surrender. That is unrealistic. Better to freeze the conflict and find another mediator, such as Oman or Kuwait. A deal should involve a phased withdrawal of Houthi fighters from Sana'a and the Saudi border, and the end of the Saudi blockade. Yemen needs an inclusive government, elections and a new structure for the state. Saudi Arabia will need guarantees that Iranian arms are not flowing into Yemen. Then it will have to cough up the cash to rebuild the country.

None of this will be easy. But a reasonable peace offer is more likely to crack the Houthis than more bombing. Without the cover of fighting Saudi aggression, the Houthis will have to answer for their failures. The public is increasingly turning against them, the alliance with Mr Saleh is fraying and the Houthis themselves are divided.

Stop the war

Right now, far from halting the spread of Iran’s influence, the war has deepened the Houthis’ reliance on Iran, which has an easy and cheap means of tormenting the Saudis. And because Saudi Arabia is bogged down in Yemen, Iran has a freer hand to set the terms of a settlement in Syria. The war is a drain on the Saudis at a time of austerity and wrenching economic reforms at home. They should therefore learn another lesson from Israel’s experience of fighting Hezbollah. If wars are to be fought at all, they should be short, and have limited aims. Deterrence is better than debilitating entanglement. ■

Brexit and the Irish question

Borderline solution

The fate of the Irish frontier shows the compromises that Brexit will force Britain to make



NORTHERN IRELAND barely featured in last year's Brexit referendum campaign, in which Britons were more interested in matters of migration and money. Yet the future of the 500km border that separates the North from the Irish Republic—and which will soon separate the United Kingdom from the European Union—has become one of the trickiest issues of the exit talks.

The winding border has revealed a tangle in the "red lines" laid down by Theresa May. After leaving the EU, Britain wants to do its own trade deals with the rest of the world, which means leaving the EU's customs union. And, like Ireland, it wants to maintain the open, invisible border that was enhanced by the Good Friday Agreement of 1998, ending three decades of violence. This presents a problem: having a different customs regime to the EU means imposing customs controls, which in turn implies that the border cannot be quite so seamless as today. Ireland, backed by the EU, has threatened to block any outcome involving a harder border, raising the risk that Britain could end up with no deal at all (see page 48).

The best way out of the mess would be to redraw the red line on customs. It would be in Britain's interests to stay in a customs union with the EU regardless of the Irish question. Britain does half its trade in goods with Europe. Customs controls would cause delays and mountains of bureaucracy. Forgoing the ability to sign trade deals with other countries would hurt. But their promise is overestimated. A deal with, say, America would mean imposing American standards—think chlorine-washed chicken—on a public that has just voted to "take back control". In a customs union with Europe, Britain would continue to enjoy trade deals with the 60-odd countries

with which the EU already has arrangements.

Brexiteers will hear none of this. But abandoning the other red line, the commitment to an invisible border, would be worse. To do so would make both sides poorer. More seriously, it would break the terms of the Good Friday Agreement, which has ended a conflict in which 3,600 people were killed and set the island of Ireland on a long journey towards peace.

Rather than choose between its red lines, Britain seems prepared to blur them. It has reportedly suggested that Northern Ireland could be given new powers allowing it to follow the same regulatory regime as the EU in areas such as agriculture and energy, where there is most cross-border trade. The hope is that this would allow the Irish border to remain pretty invisible, even as Britain pursued a customs regime of its own.

Give and take

Such a plan would require all sides to compromise. Even with harmonised rules on agriculture, the border would probably have to be harder than Ireland would like. Other EU countries would have to put up with a frontier through which it would be relatively easy to smuggle untaxed goods. In a part of the world that has a history of organised crime, that is no small risk. Perhaps the biggest compromise would be needed from Northern Irish unionists, who resist any attempt to divide the province from the British mainland. Northern Ireland may soon be closer in regulatory terms to the Irish Republic than to Britain. It does not take much imagination to see where that precedent could eventually lead.

The fudge may be just enough to get Britain through to the next round of Brexit talks. But keeping all parties happy with the details of the final deal will not be easy. The episode shows how Brexit will require Britain to make painful choices—and impose them on its closest allies. In the year ahead there will be plenty more of that. ■

Business and society

Chief activist officer

Bosses are under increasing pressure to take a stance on social issues. How should they respond?



IT OUGHT to be a love-in. American companies support tax cuts and deregulation. As *The Economist* went to press, President Donald Trump was pushing the Senate to pass a sweeping, business-friendly tax reform. Instead, CEOs have reason to feel uneasy. In the first year of his presidency, executives have found themselves embroiled in public disputes with Mr Trump on everything from immigration to climate change. His advisory councils of business leaders have disbanded. The second year of his presidency is unlikely to be much smoother.

Some of these spats between the Oval Office and the corner office reflect Mr Trump's peculiar style of governing. But they point to something bigger, too (see page 53). Executives who would rather concentrate on commerce are finding it ever harder to avoid politics, in America and beyond.

One reason lies in the forces that propelled Mr Trump to office. In a recent survey of people in 28 countries, 62% of respondents worried about globalisation; 55% thought an influx of foreigners was harming their economy and culture. These trends are marked in the United States. Two-thirds of Americans are concerned about immigration. Three-quarters think the government should protect local jobs and industry, even if that slows growth. Furthermore, trust in CEOs is dropping. In ►

Joseph Erasmus Bellinger, detail from "Flying machine, invented by Jacob Degen in Vienna", 1807.

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► the survey just 38% thought they were very credible, down by five points from 2016. What was once standard business practice, whether minimising tax bills or investing abroad, exposes CEOs to suspicion and the intrusion of politics.

Consumers can now express their opinions dramatically online. Keurig Green Mountain, a maker of coffee machines, recently tweeted that it had halted advertising on a Fox News programme whose host had appeared to defend Roy Moore, a Senate candidate accused of dating and assaulting teenagers. Afterwards consumers posted videos of themselves bashing Keurig machines. As one commenter pointed out, everyone might feel less cranky if they stopped boycotting coffee firms. But that wouldn't save bosses from controversy.

Employees, many of them in the big, Democrat-leaning metropolitan areas where large companies are often based, increasingly demand that their firms take positions on issues ranging from gay rights to climate change. Nearly half of young American employees say they would be more loyal if their boss took a public position on a social issue. A big test came in 2015, when Indiana was considering a "religious freedom" bill that would have let firms and non-profit organisations discriminate against gay and transgender people; Apple and Salesforce.com were among those to oppose it, saying it would harm their customers and staff.

And shareholders are judging firms on broader criteria than financial ones. Investments that considered environmental, social and governance factors accounted for \$13.3trn of assets under management in 2012; that sum was \$22.9trn in 2016. Over a fifth of the funds under professional management in America fall into this category, up from a ninth in 2012.

Not every company faces the same pressures: a consumer-facing firm needs to be more attuned than a corporate-facing one. Nor is there a simple recipe for how a business should best balance purely commercial goals with the competing interpretations of its social responsibilities from employees, customers and shareholders. But to help them navigate the era of activism, CEOs should bear two rules of thumb in mind.

The profitable is political

The first is to be consistent. Firms can no longer spout platitudes about corporate "values"; independent watchdogs and staff stand ready to brand discrepancies as hypocrisy. Google recently became a model of what to avoid. An employee wrote a memo on women and tech firms; Google fired him, saying the memo violated its code of conduct and created a hostile environment for women. That undermined free speech (which Google vows to defend online) and called attention to how the firm fails the group it was claiming to protect (it is under scrutiny for paying men more than women).

The second is to adopt an old Goldman Sachs mantra, of being "long-term greedy". CEOs have to watch quarterly results. But to maximise the long-run value of their firms, they must anticipate the shifting preferences of various constituencies, from staff and customers to regulators and investors. Mark Zuckerberg, Facebook's boss, warned last month that heavier investments in online policing would squeeze short-term earnings, but said that this would protect the firm's long-term health. He might have done well to reach that conclusion sooner. Anticipating changes to political and social norms is hard. But it is a vital part of the CEO's job description. ■

Internal migrants in China

Expelling Chinese people from Chinese cities

Officials in Beijing are using brutal tactics to limit the city's population. They are wrong even to try



IN ALL countries, a big influx of migrants tends to provoke grumbles among the natives. In China, however, the migrants most frequently grumbled about, and treated with the greatest hostility, are not foreigners but other Chinese: rural folk who move to the cities in search of a better life. This has been on show in the past few days in the capital, Beijing. On November 18th a blaze in a ramshackle warehouse-cum-apartment-block killed 19 people believed to be migrants from elsewhere in China. The authorities are now using "fire safety" as a pretext to drive thousands of other migrants out of the basements, air-raid shelters and shanties where they live (see page 28)—often by cutting off their electricity and water. It has amounted to a mass expulsion from the capital.

It is clear that officials are not simply aiming to prevent future fires. A few volunteers who have tried to set up shelters for people who have found themselves suddenly homeless in sub-zero temperatures have been ordered by police to close them. The capital has a long record of trying to limit the population of migrants from the countryside by making it harder for them to rent crummy accommodation, the only kind that most

of them can afford. They cannot buy a home without being formally employed (which most are not) and having residency papers (which are almost impossible for them to obtain).

The government wants to restrict the growth of megacities such as Beijing. It says their large populations put too much strain on water supplies, roads, hospitals and so on. Efforts to ease such pressures on the capital have been dramatic. They have included spending tens of billions of dollars on piping and channelling more water into the city from hundreds of miles away—a project touted as the biggest of its kind in the world. Even more dramatically, in April the government announced plans to build a whole new city from scratch, about 100km (60 miles) from Beijing, where some businesses and universities will be relocated. That will cost another few hundred billion dollars. Beijing aims to have no more than 23m residents by 2020, compared with nearly 22m today—an implausible goal, without yet more abuse of migrants.

A better Beijing

Officials have an extra reason to curb the population in Beijing—one that is especially important to the ruling Communist Party: as the capital, the city must look its best and avoid any hint of instability. The leadership views any unrest in Beijing, however minor, as a potential threat to the party's grip on ►

▶ power. Hence the thuggish treatment of shanty-dwellers and the routine shakedowns by police of any shabbily dressed person heading towards Tiananmen Square. Who knows what chaos might be unleashed by a protest there about unpaid wages, abusive bosses or other migrant grievances?

There are ways of easing the capital's growth pains that would be both more humane and more efficient. Water is scarce largely because it is too cheap. Pricing it properly—so that it reflects supply and demand—would spur households and businesses to use less of it. This would no doubt upset Beijingers, who have grown used to cheap water. But it would be less disruptive than building an entire new city down the road.

Above all, Beijing and other megacities should stop treating settlers from elsewhere in the country as second-class citizens. Refreshingly, some public intellectuals in Beijing signed a petition deplored the recent evictions as a violation of human rights. But all too often residents of the capital ignore the mistreatment of migrants. Many share the government's worries

about overcrowded schools and hospitals. But if the migrants were allowed to have proper jobs, they would pay more taxes and support more public services. Discriminating against them can be deadly. When they are, in effect, barred from formal, regulated housing, they end up in firetraps.

It would be better to give all Chinese citizens the same rights to live where they please and obtain public services where they live. Ideally that would mean abolishing the *hukou* system, which ties Chinese to the place their family came from. Failing that, the government should at least stop putting arbitrary caps on the populations of megacities. Such caps make no economic sense. The more people a city attracts, the more productive it becomes, as people forge millions of valuable connections with each other. Also, Beijing's and Shanghai's non-migrant populations are set to age and shrink as a result of declining birth rates. They will soon need migrants even more urgently than they do today. Out of self-interest, if nothing else, they should treat them decently. ■

European banks

A job half-finished

Much has been done to strengthen Europe's banking system. But not enough



make trading more transparent and oblige banks to charge clients separately for research; PSD2 will expose banks to more competition from technology companies, and each other, in everything from payment services to budgeting advice. A new accounting rule, IFRS 9, also kicks in, demanding timelier provisions for credit losses. The global capital standards drawn up after the crisis, Basel 3, may at last be on the verge of completion—implying yet another uptick in equity requirements for some European lenders.

Amid this blizzard of letters and digits, the European Commission is pushing ahead on yet another front. It is urging governments and the European Parliament to complete the EU's banking union by 2019 and thus cut the “doom loop”, in which weak banks and sovereigns drag each other down. Because regulators treat all euro-area government bonds, regardless of origin, as risk-free, banks have an incentive to load up on them in order to economise on equity; and they favour their home governments' bonds. Should the sovereign-bond prices fall, as they did in Greece, local banks take a big hit; if governments have to prop up lenders, the spiral goes on down.

Much has already been done to weaken this link. A single supervisor, housed in the European Central Bank (ECB), watches over the euro zone's biggest lenders. A single resolution board, backed by a central fund, deals with failing banks. Yet the banking union is only half-built. The zone's economic bounceback might well make its completion seem less urgent (see *Free exchange*). But waiting for the next financial crisis to strike would be the greater folly.

THE permanent revolution rumbles on. Ten years after the financial crisis, Europe's bankers must wonder whether the regulatory upheaval will ever cease (see page 61). Next month two European Union directives start to bite. MiFID2 will

One big missing piece is a common European deposit-insurance scheme. Germans and other northerners have balked at the thought of bailing out supposedly feckless southerners. To allay such fears, the commission wants to go gradually: at first, should depositors have to be made good, a European insurance fund would merely lend money to national schemes, which would then be recovered from other banks.

Northerners will remain suspicious. That makes two other elements of the commission's plan essential complements to deposit insurance. One is to bulk up banks' shock absorbers, most likely with convertible debt, so that they can withstand heavy losses. The other is to tackle the piles of non-performing loans that, though shrinking, still weigh down lenders in Italy and other southern countries. That requires speeding up and harmonising procedures for insolvency and recovering collateral. The commission and the ECB are also working on rules for prompter recognition of duff loans in future.

All that makes sense but, to sever the doom loop, the commission wants to go further. It is looking at an ingenious scheme, first proposed by a team of European economists, to create securities backed by a pool of sovereign bonds. The safest tranches would be the riskless asset, free of nationality, that the euro area currently lacks.

Cut the cord

Though worth pursuing, the transition to the safe asset would be tortuous. After purchases to back the asset, the markets for some government bonds will end up being rather thin. Germans may suspect that they will remain the ultimate guarantor. Other means of strengthening Europe's banks therefore remain vital. Consolidation, both within and across borders, would help. Europe has too many small banks; even its biggest lack scale. And many academics believe that banks everywhere should add still more equity to their balance-sheets. Completing the banking union is necessary for financial stability. It is not sufficient. ■

The TPPing point

The rebirth of the Trans-Pacific Partnership trade deal without the participation of America ("Repair job", November 18th) will have large consequences for the country. America is now excluded from a vital process for renewing the rules of international trade. For example, the new Comprehensive and Progressive Agreement for the TPP has suspended several measures that were a priority for America.

It has left a pact that is bound to grow. We estimate, in the paper referenced in your article and published by the Peterson Institute, that adding the five countries that have expressed interest in joining would triple benefits and produce larger gains than the old TPP did. America's exit leaves a leadership void that China is already beginning to fill through the Regional Comprehensive Economic Partnership, the Belt and Road Initiative and the Asian Infrastructure Investment Bank.

The United States is paying a high price for its illusory pursuit of "wins" in bilateral negotiations.

PROFESSOR PETER PETRI
International Business School
Brandeis University
Waltham, Massachusetts
PROFESSOR MICHAEL PLUMMER
SAIS Europe
Johns Hopkins University
Bologna, Italy

The airport-slot machine

Auctioning landing and take-off slots will do nothing to alleviate the shortage of airport capacity ("Winning the slottery", November 18th). In fact, auctions would create the absolute wrong incentive for governments—the scarcer the slots the higher the price. It is true that slots are allocated free, but you are incorrect to assume that this is a free ride. Airlines pay each time they land or take off. Last year the airport bill in Europe alone exceeded \$31bn, and it is rapidly rising.

The current system facilitates new entrants. Look at the phenomenal growth of easy-

Jet, Wizz Air, Air Asia, Hong Kong Express, GOL, IndiGo and Jetstar. None of these flew before 1995. And it is not a stitch-up by a committee of legacy airlines. Official co-ordinators (independent from airlines), airports and governments follow transparent rules to match market demand with available capacity. Consumers enjoy ever cheaper fares, a growing number of routes and more choice.

The system is not perfect. Airlines and airports are working together to fix it. But let's not make the problem bigger by retrying auctions. We've already seen that fail. The conclusion *The Economist* missed is the urgent need to build enough runways to satisfy demand.

ALEXANDRE DE JUNIAC
Director-general
International Air Transport
Association
Geneva

Let judges decide the penalty

Power imbalances favouring the state often lead to improvident plea-bargain deals in the courts ("The shadow justice system", November 11th). An article by Stephanos Bibas in the *Harvard Law Review* identified mandatory minimum prison sentences set out in statutes as contributing significantly to these unjust results.

Mandatory minimum sentences date back to Britain's Black Act of 1723, when the filching of one farthing too many meant the difference between gaol and the gibbet. Harsh outcomes in sympathetic cases, and advances in penology and criminology, gradually led legislatures away from mandatory sentences, giving courts considerable discretion in the imposition of proportionate penalties upon offenders. But the pendulum then began swinging back the other way as tough-on-crime policies became the norm.

Canadian criminal law has been affected by this trend. In 1982 there were only six mandatory minimum sentences prescribed in our criminal statutes. By 2006 there were 40. At present, there

are over 100. Courts in Canada, including my own, have come to view a lot of these as imposing cruel or unusual punishments, which create the risk of pressuring charged persons into pleading guilty when they might be legally or factually innocent.

DEL ATWOOD
Judge of the Provincial Court
and Family Court of Nova Scotia
Pictou, Canada

Protestants and Catholics



"The stand", your essay on Martin Luther's Reformation (November 4th), attributed to Protestantism a wide variety of changes to society, politics and the economy. Yet, you routinely implied causation while only demonstrating correlation, and opted for broad generalisations where fine distinctions are required.

For example, you suggested that "Protestant toleration was good for business", pointing to the Calvinist Netherlands in the late 16th century as a prime example. What about the toleration that the Warsaw Confederation enshrined into law in the Polish-Lithuanian Commonwealth, a Catholic state many times larger than the United Provinces? And again, saying that "Protestant education provided opportunities for social mobility" does not do justice to the many initiatives that the Catholic church promoted throughout 17th-century France to raise the level of education among the poor, such as in the *petites écoles* throughout pre-revolutionary France.

Moreover, your narrative on the growth of Protestantism in developing countries did not compare that trend with the parallel growth of Catholi-

cism in those same regions.

FATHER ANDREW LIAUGMINAS
Catholic Chaplain of the
University of Chicago

It is not quite true that "Britain, with its established Protestant church, did more than any other country" to build up the slave trade. Figures from Emory University's Trans-Atlantic Slave Trade Database show that of the 12.5m slaves brought to the Americas, the Catholic powers of Spain and Portugal were responsible for 7m. The British transported 3.5m. This does not excuse their role, but evangelical Protestant abolitionists such as William Wilberforce played an integral role in bringing about the abolition of the slave trade in 1807 and the emancipation of slaves throughout the British empire in the 1830s. It was the British navy that enforced the abolition of the international trade, despite the efforts of Catholic Spanish and Portuguese traders to smuggle human cargo across the ocean.

G. PATRICK O'BRIEN
Columbia, South Carolina

Covered in glory

You declare in "Cows and seep" (November 18th) that Nick Smith, New Zealand's environment minister, "may be the first politician to be immortalised in horse manure". A hard point to argue, though your "may" does leave an open door for further inquiry. However, he is, I am quite sure, by no means the first politician to produce horse manure, however modestly or abundantly. The real villains of your piece were, the cows, or really, the bulls. So let me ask: should they be immortalised in man manure? You know, sauce for the cow is sauce...oh, never mind.

BUDD WHITEBOOK
Washington, DC ■

Letters are welcome and should be addressed to the Editor at The Economist, The Adelphi Building, 1-11 John Adam Street, London WC2N 6HT
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Executive Focus



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Chief Information Officer (CIO)/Director, Information and Communications Technology (ICT) - D1 Level

The International Organization for Migration is inviting applications for the post of **Chief Information Officer (CIO)/Director, Information and Communications Technology (ICT) at Headquarters in Geneva, Switzerland**. The Director's responsibility is to assess the substantive and operational needs for developing, maintaining and monitoring an effective information and communications technology functions for the Organization. This includes responsibility for strategies, policies and guidelines, information systems, communication architecture and ICT infrastructure in line with the Organization's strategic and business objectives. S/he will be responsible for providing leadership and management of the Organization's global information systems, staff and ICT infrastructure.

Qualifications and Core Competencies: Master's degree in Computer Science or Engineering, Information Systems, Mathematics, Business Administration, Management or a related field from an accredited academic institution with fifteen years of relevant professional experience. Programme Management Institute Scheduling Professional, Prince2 Foundation, or an equivalent license is desirable. More than fifteen years of progressively responsible experience in planning, development, implementation and maintenance of information systems, including large-scale ERP systems, or related areas, in public, business, and/or international environment, is required. Experience in the area of strategic management concepts, change management, enterprise architecture framework, relevant technology platforms, and project management framework and methodologies. Experience in the application of implementation methodology framework is desirable. Proven experience in implementing an information security programme is highly desirable. Experience in directing and managing business process improvement and re-engineering techniques is desirable. Proven experience in the management of staff, budgets and financial resources.

Salary: IOM offers an attractive salary package based on the United Nations system at the D1 level.

A full term of reference is available at the IOM website: www.iom.int. Candidates may apply before 15 December 2017 using the IOM online e-recruitment facility: <http://www.iom.int/how-apply>.



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In addition to the above Gresham Professorship, opportunities may be available for a number of part time Visiting Professorships at Gresham College, tenable from August 2018 for a period of 1-2 years (renewable). Visiting Professors will be expected to deliver three lectures each year during their term of appointment. As above, applications in disciplines within the areas of Business, Economics, Finance and Commerce will be considered.

Further information about this position is available on the Gresham website at: www.gresham.ac.uk/vacancies/business

*Informal discussion may take place with the Academic Registrar,
Dr Valerie Shrimplin, Gresham College, Barnard's Inn Hall, Holborn, London EC1N 2HH,
Telephone 020 7831 0575, v.shrimplin@gresham.ac.uk*

*The closing date for application is 9 January 2018
Interviews will be held in London on 2 February 2018*

The World Health Organization (WHO), Geneva, seeks a
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<http://www.who.int/careers/en/>



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From bad to worse

ADEN, HODEIDA AND SANA'A

A humanitarian crisis brought on by war is devastating the poorest country in the Middle East

ALONG the road from the port city of Hodeida to Sana'a, Yemen's capital, rugged mountains rise sharply from a coastal plain, then level off, giving way to a raised plateau. Old stone farmhouses overlook terraced fields, fed by mountain rains. To the south are lush forests, where baboons and wildcats live. Yemen's vast deserts spread to the east. The diversity of the landscape is breathtaking. But amid all this natural beauty, there is misery.

Yemen was the poorest country in the Middle East even before the outbreak of war in 2014 between Houthi rebels and government forces. The conflict has heaped devastation upon poverty. Since fighting began Yemen has suffered the biggest cholera outbreak in modern history and is on the brink of the harshest famine the world has seen for decades. The conflict has shattered the water, education and health systems. The UN says that it is the world's worst current humanitarian crisis. Three-quarters of the population of 28m need help.

The war in Yemen, and looming humanitarian catastrophe, has gone largely unnoticed beyond its borders. The fighting is rooted in old conflicts and now involves many groups, sucking in Yemen's neighbours. But no single force has emerged that is strong enough or competent enough to

hold the entire country together, making the prospects for peace dim.

Yemen's infrastructure has been crumbling for years, so it is difficult for a visitor to tell between buildings that are falling down through neglect and those half-levelled by explosions. But locals point out the damage wrought by a bombing campaign led by Saudi Arabia, part of an international coalition that supports the government. Although American and British military advisers have helped the Saudis to choose targets, and their governments have provided them with precision-guided munitions, or "smart bombs", the air strikes often seem to miss their mark.

The Houthis, a group of Shia rebels, are the main target. Unhappy with reforms to the state and their share of power, they swept out of their northern stronghold in 2014 and overran Sana'a. With the support of Iran and the forces of a former dictator, Ali Abdullah Saleh, the Houthis then moved south, taking control of most of the rest of Yemen. The president, Abd Rabbo Mansour Hadi, fled—first to Aden, a southern port, then to Saudi Arabia, where he remains. At his request, the Saudis stepped in and, with local forces, pushed back the Houthis to the north of the country.

Coalition air strikes have targeted factories and food-storage warehouses, as

well as the airport in Sana'a. The road from the capital to Hodeida is pockmarked with craters. At the port, the cranes used to unload ships have been put out of action. Once the lifeline of the north, it now operates at well under its former capacity. For months America tried to supply new cranes, but they were turned back by Gulf members of the coalition.

Ships and planes carrying food, fuel and medicine are monitored by the UN to ensure that arms are not entering the north. But the coalition still holds up shipments. In November it cut off northern ports completely for over two weeks. Even the more limited blockade has created a cycle of suffering. A lack of fuel has crippled water-pumping stations, so locals have resorted to drinking from dirty sources. Cholera is often the result. The medicine to treat it is also held up by the coalition.

Nowhere is safe

Nothing seems out of bounds for the bombers. About 40 health centres were struck by the coalition over the first six months of the war. Amnesty International, a pressure group, has accused it of deliberately targeting civilians, hospitals, schools, markets and mosques; and of using imprecise weapons, such as cluster bombs, which most countries have outlawed. A spokesman for the coalition once declared the entire city of Saada, home to about 50,000 people, a military target.

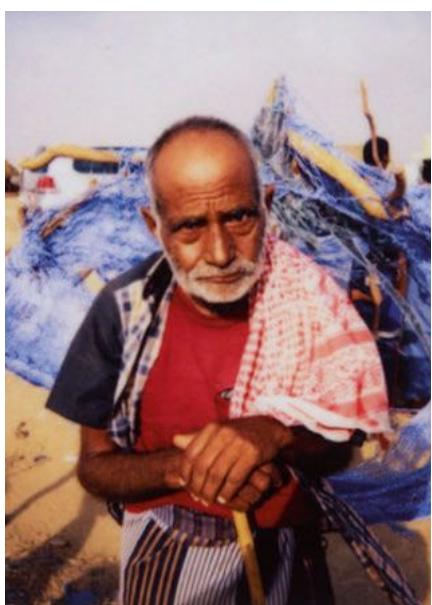
That is where Ali Marhad (see picture on next page) lived before fighting about a decade ago forced him to flee. He moved into a camp for displaced people in Mazraq. But it was bombed in 2015 by the coalition, killing 40 people, including his two ➤

sons, he says. He then moved to a camp in Hajjah. Earlier this year another bomb fell near his home, a collection of sticks and tarpaulin. It is exceedingly difficult for ordinary Yemenis to escape the fighting.

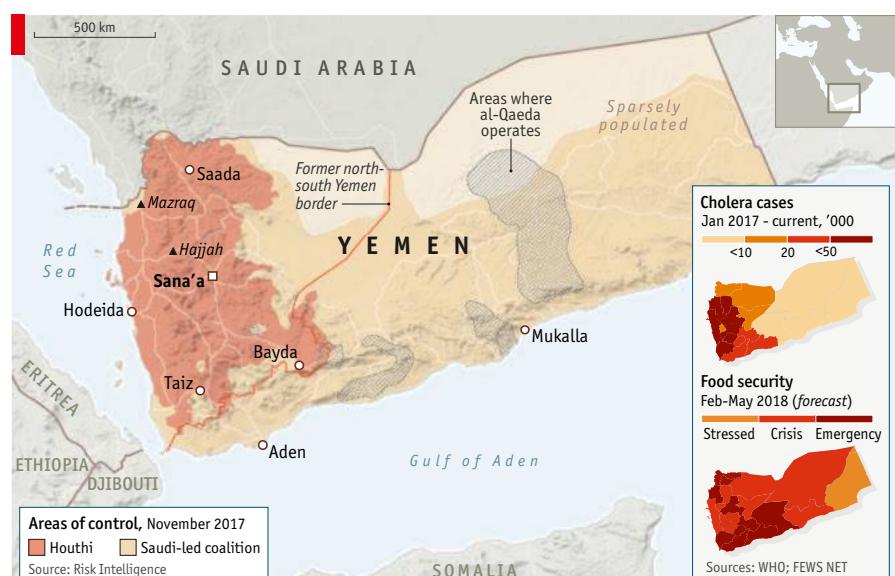
At least 10,000 people, most of them civilians, have been killed by bullets and bombs. Around 40 times more people have died in Syria's war, which also sent a wave of refugees to Europe. Perhaps that is why it has gained international attention, while the conflict in Yemen is overlooked. Less than half of the British public is aware of it. The death toll is anyway misleading. Many more Yemenis have died from a lack of food and medicine than from the fighting, of which the shortages are a direct result. The war continues, though the front line has hardly budged in the past year.

Fighting is not unusual in Yemen. Sitting at the south-western tip of the Arabian peninsula, on important trade routes, the land has long been coveted by foreign powers. In the past century it has seen about a dozen conflicts, involving over half a dozen countries.

Some seeds of today's fighting were sown in battles in the 1960s—a civil war in the north and an insurgency against British colonial forces in the south. Two distinct Yemeni states arose. Leaders in the north turned to religious authority for their legitimacy, enlisting the support of Islamic clerics. The more secular south adopted Marxism and aligned itself with the Soviet Union. Political feuding led to further wars in 1972 and 1979, but economic hardship and the end of the cold war brought the sides together. After a series of failed agreements in the 1970s and 1980s, north and south at last agreed on a new constitution in 1990, in the hope that a show of unity would attract foreign investment and increase the extraction of Yemen's oil.



This is home for Ali Marhad



Money briefly flowed in and oil out. But simmering ill-feeling erupted into civil war in 1994 in which Mr Saleh's northern forces were victorious. In the aftermath his General People's Congress (GPC) dominated parliament, then set about consolidating power. Parliamentary elections in 2003 were postponed and critics detained. Mr Saleh and his henchmen are thought to have stolen billions of dollars of state funds, while most Yemenis got by on less than \$3 a day. Resentment of his rule grew.

The Zaydis, a Shia sect, who make up perhaps 40% of the population, felt particularly marginalised by Mr Saleh (though he is one of them). The Houthis emerged from this group in the 1990s, bristling at the growth of the Saudis' conservative religious influence and Yemen's alliance with America in its war on terror. Mr Saleh, in turn, accused the group of wanting to overthrow his government. Hundreds of people died in fighting between the Houthis and pro-government forces between 2004 and 2010—including Hussein Badruddin al-Houthi, the group's leader, from whom it takes its name.

Opposition to Mr Saleh's rule came to a head during the Arab spring of 2011, when tens of thousands of Yemenis took to the streets. With a push from the Gulf states, he stepped down in 2012 and was succeeded by Mr Hadi, his vice-president. Thus began a short-lived period of hope. Talks overseen by the UN led to a plan in 2014 for a new constitution enshrining a federal system and a parliament split between northerners and southerners.

The Houthis, however, continued to distrust the government. They boycotted an election won by Mr Hadi in 2012 and opposed the agreement of 2014, on the grounds that it stuck most of them in a region with few resources and no access to the sea. Nor had they received positions in the government that they wanted. Their

frustration was shared by Mr Saleh, who sought to undermine the transition in the hope of regaining the presidency or, at least, handing it to his son.

Resentment towards Mr Hadi and disquiet over the growing power of Islah, an Islamist party affiliated to the Muslim Brotherhood, Egypt's main Islamist group, brought the Houthis and Mr Saleh into an unlikely alliance in 2014. In September of that year their forces entered Sana'a—and were welcomed by many Yemenis who had become disenchanted with Mr Hadi's ineffective leadership. A power-sharing deal between the Houthis and the government was brokered by the UN—and then ignored. In early 2015 the rebels seized full control of the capital. By March they had made it to Aden.

Muhammad fears a Houthi

But it was also becoming clear that the Houthis, motivated by grievances, did not have a plan for ruling Yemen. In areas under their control, rubbish is piling up, cash is hard to get hold of and the lights have gone out. "My sense of it is that they never really had a clear political agenda, both during the wars with Saleh and after," says April Longley Alley of the International Crisis Group, a think-tank.

The incompetence of the Houthis has been compounded by the involvement of Saudi Arabia. Saudi meddling in Yemen is nothing new. In 1994 Saudi soldiers retook towns seized by the Zaydis. Prince Saud, their leader, would later become king. Today Prince Muhammad bin Salman is first in line to the throne. But his adventure in Yemen, which seemed designed to build him a reputation as a strong leader, has led Saudi Arabia into a quagmire.

Responding to Mr Hadi's call for help, Prince Muhammad organised a coalition that included Egypt, Morocco, Jordan, Sudan, Kuwait, the United Arab Emirates, Qa-

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Vinod Kannan
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tar and Bahrain. They began striking Yemen from the air and the sea in March 2015. A month later the Saudis declared the air campaign over. It had “achieved its military goals”, officials said. A new operation would supposedly focus on finding a political solution in Yemen.

In reality, the war was just beginning. Over the next months, local forces backed by coalition air strikes (and later soldiers) pushed the Houthis back. However, they have not been able to drive them out of territory seized in the north, including Sana'a. So instead the coalition seems intent on starving the north.

The Saudis have created much of the misery that blights Yemen, but blame falls on others, too. The Houthis and Mr Saleh's forces have also carried out indiscriminate attacks in cities such as Taiz and Aden. They have held up aid and are accused of war profiteering. Mr Hadi says the Houthis looted around \$4bn from the central bank to pay for the war (the Houthis say the money was used for food and medicine). So he moved the bank from Sana'a to Aden in 2016 and stopped paying the salaries of public servants in the north. Schools and hospitals have closed and many northerners face destitution.

For Saudi Arabia, the region's Sunni champion, the failure of its campaign in Yemen is twofold. Not only was it designed to reinstate Mr Hadi's government—it was also supposed to send a signal to Iran's Shia regime. The two powers are locked in a struggle for regional dominance that has spilled over into Syria, Lebanon and Iraq. The Saudis fear that, in the Houthis, Iran is nurturing a Shia proxy, akin to Hezbollah, the Lebanese militia that it backs. Yet again Yemen is the playground of bigger powers.

America has concluded that Iran does not exert “command and control” over the Houthis. But there is little doubt that it is arming the group. It appears to have supplied missiles the Houthis have fired. America's most senior admiral in the re-

gion told the New York Times in September that Iran is providing anti-ship and ballistic missiles, mines and exploding boats that the rebels have used to attack coalition ships in the Red Sea. When the Saudis shot down a missile fired from Yemen on its way to Riyadh on November 4th, they called it an “act of war” by Iran.

The possibility that the war might end soon is slender. The Saudis have powerful backing to continue their fight. President Donald Trump has nothing but praise for them. When he visited Riyadh in May he applauded their “strong action” against the Houthis and agreed to sell them \$10bn worth of “beautiful” arms. The war has also been a blessing for Britain's defence industry, which has hugely increased sales of missiles and bombs to Saudi Arabia since the start of the war. As the European Parliament approved a non-binding arms embargo against the Saudis in 2016, David Cameron, then the prime minister, sounded almost Trumpian, praising the “brilliant” weapons that Britain was selling to the kingdom. His successor, Theresa May, at least expressed her concerns over the war.

America and Britain not only support Saudi Arabia but have blocked other countries from putting pressure on it. Along with France, which also sells weapons to the Saudis, they undercut a UN resolution in 2015 that would have set up a panel to examine abuses in the war. When urging the creation of a new panel earlier this year, Zeid Ra'ad al-Hussein, the UN high commissioner for human rights, condemned “the reticence of the international community in demanding justice for the victims of the conflict”. The panel was approved—but only after America, Britain and France had watered it down.

The UN has organised three rounds of peace talks. But Mr Hadi's government insists that the Houthis lay down their arms and withdraw from the areas they have seized. The Houthis complain that they are

the only group that UN resolutions ask to give ground. In May a convoy led by Ismail Ould Cheikh Ahmed, the UN envoy to Yemen, was attacked by demonstrators in Sana'a. “There will be no more contact with [him] and he is not welcome here,” said Saleh al-Samad, a Houthi leader, a month later.

As the war drags on, both sides appear unsteady. In the south the Saudis along with the Emiratis, who are the largest foreign force on the ground, have built an unwieldy alliance of Salafists, southern secessionists and other militias. “Whatever Gulf money can buy,” says an observer. Some of these groups are accused of working with jihadists, such as al-Qaeda in the Arabian Peninsula, though the Emiratis have pushed back al-Qaeda. No one thinks Mr Hadi has a long-term future.

North-south divides

In the north the Houthis accuse Mr Saleh of negotiating secretly with the coalition (though they have done the same). Mr Saleh, who is the weaker partner, fears being left out of any settlement. Things came to a head in August, when clashes between Houthis and supporters of Mr Saleh led to deaths on both sides. They have since made up but tension remains high. And there is a split within the Houthis, between hardliners and moderates. The group's leader, Abdel-Malik al-Houthi, is seen as willing to negotiate. However, analysts say that, the longer the war goes on, the stronger the hardliners become.

Some spy an opening. Ms Alley reckons that the divisions, as long as they do not develop into open conflict, are an opportunity for some kind of deal. “Carrots have to be offered to those willing to compromise—right now it is all sticks,” she says. Yet the Saudis, under little pressure from abroad, do not look like backing down and seem to hope that the population in the north will rise up against the Houthis. Frustration with Houthi rule is growing, something Mr Saleh seems keen to exploit, but so far the streets are mostly quiet.

Others may not want peace. Warlords profit from extortion or by selling looted aid on the black market. Mr Hadi's government and other combatants are accused of creating shortages so that they can sell items, such as fuel, at a big mark-up. Even if the Saudis were to withdraw, many analysts think that the fighting within Yemen would continue—between northerners and southerners, the Houthis and Mr Saleh or Islah and any number of parties.

Ordinary Yemenis are less interested in such divisions. A crowd gathers around Ali Marhad's tent as he dispassionately recounts his hardship. They come from Houthi territory, but they say they have no tribe, no money, no home, “just Allah”. Do they care who wins the war? “No!” they cry. They just want it to end. ■

A history of violence

Yemen, GDP per person, \$'000*

Selected events

- ◀ 1918 The Ottoman empire crumbles. Northern Yemen gains independence. Britain controls the south
- 1962 Army officers seize power in the north, declaring the Yemen Arab Republic (often called North Yemen) and sparking a civil war
- 1967 British troops withdraw from southern Yemen. The state of South Yemen is born
- 1972 and 1979 North and South Yemen clash along their border
- 1990 North and South Yemen unite. Ali Abdullah Saleh is made president
- 1994 Northern forces put down a secession attempt in the south
- 2000 Al-Qaeda bombs the USS Cole, an American warship, docked in Aden
- 2004 Fighting between the Houthis and the army. Sporadic clashes continue for six years
- 2014 Houthi rebels take control of Sana'a
- 2015 Saudi Arabia begins bombing Yemen
- Aug 2016 Peace talks in Kuwait break down

Source: Conference Board





Politics in Pakistan

Armed and obstreperous

ISLAMABAD

The army's refusal to disperse protesters is a sign of its broader political ambitions

HIS protest camp had been blocking a busy motorway for more than three weeks. He had been giving speeches to the protesters denouncing politicians as “pigs”, “pimps” and “dogs”. Yet Khadim Rizvi, a Muslim cleric, was not worried about being forcibly evicted by the army. “Why would they take action against us,” he asked, “when we are fulfilling their goals?” He meant that they all wanted to defend Islam, but he might just as well have been referring to humiliating and undermining the ruling party, the Pakistan Muslim League-Nawaz (PML-N).

On October 30th the wheelchair-bound Mr Rizvi and around 5,000 supporters gathered at Faizabad interchange, an important junction on the road between Islamabad, the capital, and the nearby city of Rawalpindi. They brought in tents and water-tankers. Clerics riled up the crowd. Protesters vowed not to leave “even if they behead us”—which was hardly likely.

The fervour was prompted by a change the government approved on October 2nd to the oath administered to MPs and other senior officials. Instead of confirming that Muhammad was the last of the prophets with the phrase “I solemnly swear”, oath-takers would now only have to say, “I believe”. Angry clerics declared this to be a veiled concession to the 4m-odd Pakistanis who belong to the Ahmadi sect and so believe that another prophet followed Muhammad—a view seen as heretical by doc-

trinaire Muslims. The government swiftly reversed the change, saying it had arisen from a clerical error.

But the protesters were not satisfied. They demanded the resignation of Zahid Hamid, the law minister. The courts, meanwhile, ordered the government to disperse the protest. So, on November 25th around 8,500 riot police began firing tear gas and rubber bullets at the crowd. Hundreds more Islamists raced to the scene to fight back, throwing stones and wielding sticks. Six people were killed. With the battle at a stalemate, the government called on the army to help. The army, despite supposedly being under civilian control, refused. Instead it offered to “mediate” between the protesters and the government.

A hard bargain

Two days later, the results of the army’s mediation were revealed: Mr Hamid resigned, all the protesters who had been arrested were released without charge, and the government promised an inquiry into the redrafting of the oath. The protesters duly dispersed. A general was spotted handing out cash to departing participants.

Observers criticised the government for stumbling into the controversy. Its failure to explain or defend the redrafting of the oath was “cowardly”, says Mosharraf Zaidi, a columnist. Most lawyers find it hard to detect any concession to Ahmadis in the revised wording, whatever the prot-

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esters may have claimed. In the wake of the surrender, a cartoonist depicted the prime minister, Shahid Khaqan Abbasi, as himself wheelchair-bound.

Yet the fiercest criticism was reserved for the armed forces. A High Court judge said that the army had no business acting as mediator, and should simply have followed orders. He also ordered an inquiry into how the protesters obtained weapons that helped them fight off the police. An editorial in *Dawn*, a liberal newspaper, argued that the armed forces indulged the protest because of an “ongoing power struggle” with the government. Asma Jahangir, a human-rights lawyer, lamented “the death warrant of democracy”.

In recent weeks the army has admitted to encouraging radical Islamists to run for political office; been revealed by one of its political proxies as the driving force behind a merger between two parties; and seen Pervez Musharraf, a former coup leader, try (and fail) to launch a new party. Most believe the army’s goal in all this is to sap the support of the PML-N and eliminate the political influence of Nawaz Sharif, its eponymous leader and Pakistan’s prime minister until July.

Mr Sharif, the darling of Punjab, the most populous province, was ousted by the Supreme Court for failing to declare a salary to which he was entitled but which he never received. The army had no obvious part in that decision, though many speculate about its role behind the scenes. ►

Corrections: In an article on poverty in the Philippines last week (“Fruit and ruts”, November 25th 2017) we said that the average annual increase in GDP in 1980–2005 was 0.63%. This figure is in fact the average annual increase in GDP per person. And in an article about Donald Trump’s visit to Asia a few weeks ago (“Fore!”, November 4th 2017), we said that President Xi Jinping would represent China at the East Asia summit in Manila. In fact, the prime minister, Li Keqiang, led the Chinese delegation. Sorry.

The army did, however, force Mr Sharif from office twice in the 1990s. Najam Sethi, a former *Economist* correspondent who is close to Mr Sharif, says the army has offered to end his family's legal troubles if he goes into exile. Politicians report receiving phone calls warning them not to vote for a recent bill that removed the ban on convicted politicians from running parties, paving the way for Mr Sharif to resume his former post as head of the PML-N.

Mr Sharif's main political rival, Imran Khan, a former cricket star, stoutly defends the military and the mullahs. Many suspect him of hoping to follow a familiar, army-cleared path to office. If so, he might succeed. Mr Sharif is still barred from serving as prime minister. He might be in jail by the next election, in 2018, depending on the result of his ongoing trial on charges of money-laundering.

But Mr Khan and his friends in the army may find it hard to break the PML-N's hold on Punjab, and thus on power. The army might be content, reckons Ayesha Siddiqा, a defence analyst, to settle for a weakened government led by the PML-N.

Whatever the army's goal, it will find it hard to stage-manage politics in the long run. Every time it has intervened in politics, popular support for democracy has grown. And even proxies can develop a will of their own. Mr Sharif may now be the army's biggest foe, but he began his career as an ally of the generals. ■

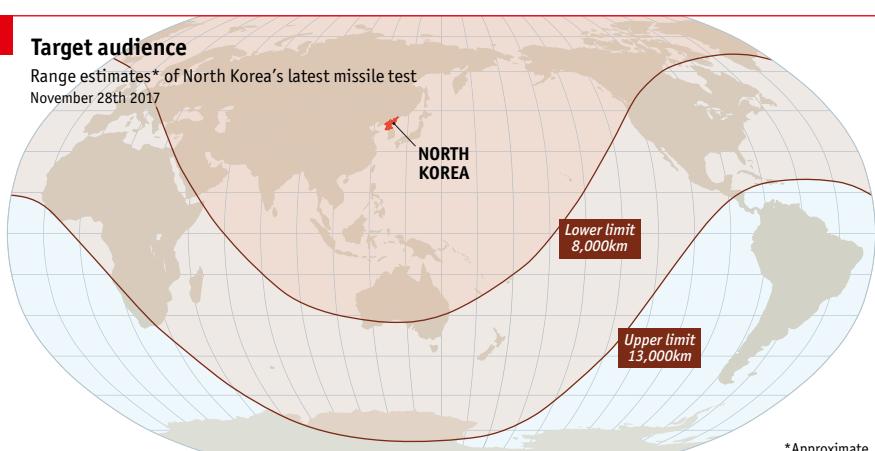
North Korea's missile programme

Rocket man extends a hand

A successful launch and a plea for respect from Kim Jong Un

FOLLOWING a brief hiatus in its testing programme, North Korea launched a missile in the small hours of November 29th that, unlike any previous missile, appeared to be able to strike any city in America. It was the third test of an intercontinental ballistic missile (ICBM) since July, and the 20th missile test this year. After watching the launch, the country's leader, Kim Jong Un, who had spent the previous day visiting a catfish farm, announced: "We have finally realised the great historic cause of completing the state nuclear force, the cause of building a rocket power."

Mr Kim eschewed the extravagantly bellicose rhetoric he normally indulges in after a successful missile launch. His "solemn declaration" emphasised that North Korea would be a "responsible nuclear power" that "would not pose any threat to any country and region" as long as the interests of North Korea "are not infringed



upon". It sounded like a plea for North Korea to be respected as a nuclear state, not vilified as a pariah.

Like the two earlier launches, the missile was fired on a highly elevated trajectory, reaching a height of 4,475km during its 53-minute flight. On a normal trajectory, experts reckon, its range would be around 13,000km—enough to strike almost anywhere in the world (see map). The government news agency, KCNA, claimed that the missile carried a "super-large heavy warhead", implying that it could deliver a hydrogen bomb of the kind the North detonated in an underground test on September 3rd.

There is no way of knowing whether the claim is true. If the payload was actually lighter than KCNA says, the missile's range could drop to 8,000km when fitted with a real warhead, according to Michael Elleman of the International Institute for Strategic Studies. Most analysts believe that North Korea has managed to miniaturise a crude nuclear device. But it may not yet be able to make a more destructive H-bomb small enough to fit on a missile. There are also still doubts as to whether North Korea has mastered the technology needed to protect a warhead during an ICBM's descent. In the previous ICBM test in July, the re-entry vehicle seemed to burn and disappear.

It would, however, be rash to assume that North Korea's engineers will not soon be able to pack a miniaturised H-bomb into a robust re-entry vehicle. An indication of the speed with which they are learning is that the latest missile was launched with less warning than previous ones, suggesting that the lengthy process of fuelling it may have been carried out before it was transported to its launch pad, thus shortening the time of its vulnerability to pre-emptive attack.

Nonetheless, within six minutes of the launch South Korean forces fired missiles from a ground-based unit, an Aegis destroyer and a KF-16 fighter, in an apparent simulation of a pre-emptive strike on a missile launch. A military spokesperson

said the drill "shows our resolve and ability to strike the origin of provocation".

Donald Trump contented himself with telling reporters: "We'll take care of it." Rex Tillerson, America's secretary of state, said that "diplomatic options remain viable and open, for now...The United States remains committed to finding a peaceful path to denuclearisation and to ending belligerent actions by North Korea."

Nobody really believes that there is a diplomatic path that will lead Mr Kim to give up his nuclear weapons. But diplomacy may yet play a role in crisis management and thus reduce the risks of a disastrous miscalculation. That may be what Mr Kim is now angling for. ■

Volcanoes in Indonesia

Smoke and tremors

RENDANG, BALI

Keeping tabs on all the archipelago's rumbling craters is no easy task

"THE hardest bit of the job is having enough sleep," admits Martanto, a 29-year-old geophysicist at the monitoring centre for Agung, a volcano in Bali which started erupting on November 25th. For the past two weeks he and half a dozen others have relocated from Bandung, in West Java, to keep watch on Agung every hour of the day, occasionally in continuous 32-hour shifts. Their base is rudimentary: a room plastered with maps, graphs and lists of telephone numbers. In one corner sits a seismometer, a cylindrical machine which measures earthquakes; in another corner a radio is on standby, in case of an emergency. Outside, a huge plume of ash spews from the crater at Agung's peak. The smell of sulphur hangs thickly in the air.

Indonesia is the most volcano-pocked country in the world, with 127 active ones. It was home to both the biggest eruption of modern times, that of Tambora in 1815, and ►

► the second-biggest, of Krakatoa in 1883. Agung's previous eruption, in 1963, was the most explosive of the 20th century in Indonesia. Gas, rock and ash were ejected to a height of 25km above the crater. More than 1,000 people died. Previous eruptions, in 1843 and 1710–11, were similarly destructive, says Devy Kamil Syahbana of the Volcanology and Geological Disaster Mitigation Centre (PVMBG) in Bandung.

Mr Syahbana's colleagues have divided the archipelago's volcanoes into three categories. The first, of which there are 69, are active volcanoes which have erupted at least once since 1600 (see map). The second are active but have not erupted since 1600. The third are potentially active openings in the earth's crust, such as fumaroles. The first type, of which Agung is one, are monitored 24 hours a day by an observer in a station nearby, from which they can see the summit. They then feed back information to the main centre in Bandung, where 200 people pore over the data under large screens showing seismographs.

The volcanologists study the earthquakes that occur beneath a volcano; the bulges and other changes to its surface; and the type and volume of gas and ash it emits. Once unusual activity is spotted, such as a sudden increase in earthquakes, a team with extra instruments is sent out from Bandung.

"Volcanoes warn," insists Surono, a former head of PVMBG. The most important thing to do, he says, is to listen to them. In September it was clear that new magma was rising in Agung, says David Pyle, a volcanologist at the University of Oxford. The government issued the highest level of alert and thousands of people were evacuated—prematurely, it turned out. The decision was based on the eruption of 1963, which was preceded by two days of earthquakes and produced calamitous flows of lava and ash within four weeks. This time around, it is as if the rock plug inside the volcano had become "harder" after 50 years of dormancy, says Mr Martanto. Finally, on November 21st, a phreatic (steam-driven) eruption seemed to suggest that magma was heating water at the top of the volcano. On November 25th the magma itself began to flow.



Hard to see coming

Eruptions, in short, are hard to predict with precision. Sinabung, on the island of Sumatra, erupted suddenly in 2010 and then again in 2013 and 2016. But before that it had not erupted for more than 400 years. As a result, PVMBG had not been monitoring it, and those living nearby were not prepared to evacuate. It is still puffing away; thousands of people have had to be permanently relocated.

Even when volcanoes are known to be active, and monitoring data abound, it is not easy to judge how imminent or cataclysmic an eruption might be. Such decisions, says Matthew Watson of the University of Bristol, require a "good deal of expert judgment under great uncertainty". Call for an evacuation too early, and people might decide the risk is overblown and return to their homes.

Mr Surono describes how he monitored Merapi, another active volcano on the island of Sumatra, for years, conducting long discussions about how to evacuate those living nearby from their homes if need be. Late on October 24th 2010 he decided that an eruption was at hand and called for an evacuation. The National Disaster-Management Authority managed to

get some 350,000 people to safety before the eruption actually occurred, on the evening of the 25th. Such a short interval between issuing an alert and an eruption was ideal, he says proudly, as it minimised the time evacuees spent away from their homes. Many people refused to leave, however, and more than 350 died.

Indonesia's budget for responding to natural disasters, including eruptions, is just 4trn rupiah (\$296m). With so many volcanoes to monitor, and with such limited resources, the "agency is spread pretty thin across the archipelago," says Clive Oppenheimer of the University of Cambridge. Even as Agung rumbles away, Sinabung is erupting again at the far end of the country. The harried Mr Syahbana seems to spend much of his time travelling.

The spread of smartphones does at least mean that locals, who in the past might have been more likely to listen to village elders or shamans than scientists, can receive expert advice directly. Technology helps with the monitoring too: drones can continue to inspect craters long after they have become too dangerous for humans to visit. Indonesia's volcanologists are getting help from abroad as well. The monitoring centre makes use of satellite images and other research provided by colleagues in America, France and Japan, for example. Even so, a lot is resting on the judgment of a handful of sleep-deprived scientists holed up at Agung's feet. ■

Education in Myanmar

No questions asked

YANGON

Awful schools are a drag on the economy—and politics

ON THE first floor of a crumbling colonial building in Yangon, a teacher taps the words written on the board with a bamboo rod. "Repeat after me so you will remember this by heart," she instructs. The whole class chants back in unison. The children have been regurgitating sentences all morning. No hands are raised, no questions asked. To earn promotion to the next form, there is no need to gain a proper understanding of the subject; memorising textbooks is all that is required. For the 40 pupils, rote learning will continue for years to come, until they complete high school.

Only one in ten students remains in school that long and passes the final exams. Although the vast majority of children in Myanmar enrol in primary school, half of them drop out by the second year of secondary school. Some do so because their families need the income they could earn by working. But most cite boredom, ►



► not poverty, as the main reason.

Myanmar's schools were not always so bad. A centuries-old tradition of monastic education gave Myanmar one of the highest literacy rates in South-East Asia at the time of independence, in 1948. The University of Rangoon (as Yangon was then known) was one of the most respected in the region. Under British rule, knowledge of English spread widely.

All this changed after the army seized power in 1962. It blew up the university's student union building and launched a campaign against foreign influence. Schools were nationalised and spending on them plummeted. In 2007-10 the government spent less than 1% of GDP on education, not even a third of the regional average. A World Bank study conducted in 2014 found that young pupils in Yangon, a relatively rich and privileged part of the country, were less good at reading than their counterparts not only in Indonesia, the Philippines and Vietnam, but also in Guatemala and Nicaragua.

The military regime saw textbooks as a tool of indoctrination more than instruction. In class, children were taught never to question authority. Fear, says Ma Thida, a Burmese writer, is rooted in Burmese minds from a very young age. She believes the atrocious education system has led to a society that is "intellectually blind".

The curriculum is a source of irritation to minorities. Although the country has been racked by insurgencies since independence, history books describe its 135 official ethnic groups as living in peace and harmony. "This is not the real history," says Nang Lun Kham Synt, an ethnic Shan who has just graduated from a government school. In fact, ethnic militias run their own schools and print their own textbooks, which often look like photographic negatives of the government's.

Businessmen, meanwhile, complain that rote learning does not give students the skills they need in the workplace. As one puts it, the more educated you are, the less employable you become. He retrains his employees with tutorials and online classes.

Aung San Suu Kyi, the country's de facto leader, whose National League for Democracy (NLD) took over from an army-backed government last year, says things will change. Education is one of the NLD's priorities. A glossy booklet produced by the Ministry of Education promises to give Burmese children "21st-century skills". The National Education Strategic Plan aims to develop vocational training and inject a dose of critical thinking into the classroom.

To turn this vision into a reality, the government is continuing with a vast increase in spending on education. This year it will stump up nearly four times more than in 2012. A new curriculum is being rolled out and teachers are being sent back to school.

Assisted dying in Australia

A sombre success

SYDNEY

The state of Victoria allows doctors to help the terminally ill commit suicide

THE quest has failed many times. The past 20 years have seen around 50 attempts to pass laws in different Australian states to allow doctors to help terminally ill people end their lives. All have suffered defeat. But on November 29th Victoria finally made history, when its parliament passed Australia's first state law to legalise doctor-assisted dying.

The law, which will take effect in 2019, allows people with an advanced, incurable illness to request "assisted dying" if their suffering cannot be relieved "in a manner that the person considers tolerable". Patients must make three successive requests for such help; doctors are banned from initiating discussion of it as an option. The original bill had proposed limiting eligibility to those who were expected to live no more than a year. Victoria's lawmakers reduced that to six months, with a few exceptions.

Most earlier attempts to legalise assisted dying were private members' bills, but

the state government proposed this one. Brian Owler, a neurosurgeon advising the government, believes this was crucial to its success. Daniel Andrews, Victoria's premier, and Jill Hennessy, its health minister, both said that seeing a parent suffer from a debilitating illness had led them to support the law.

Assisted dying is legal only in Colombia, Canada, a few European countries and some American states. Mr Andrews says the new law is the most conservative in the world. Yet it has rankled some other members of his party, Labor. Paul Keating, a former Labor prime minister, says it "stands for everything a truly civil society should stand against".

It has divided doctors, too. Michael Gannon, head of the Australian Medical Association, a lobby group, says Victoria's parliament has "changed one of the fundamentals of medical ethics". Doctors are "concerned about where it might lead". Mr Owler retorts: "It's not about doctors. It's about people who are suffering and dying." Andrew McGee, a health-law specialist at Queensland University of Technology, thinks Victoria's law prevailed because the government had embarked earlier on a "thorough" public inquiry that reassured people "this type of regime can succeed."

Australia has six states and two self-governing territories. The Northern Territory legalised assisted dying 21 years ago. But the national government can overturn territorial legislation, and did so on that occasion within a year. It has no such power over state laws, however. Malcolm Turnbull, Australia's prime minister, who leads the right-wing Liberal Party, says he would not have voted for Victoria's law. But Mr Owler is confident it will become a "blueprint" for change elsewhere in Australia.



The moment the bill passed

But the process is chaotic and disjointed. At least nine foreign organisations are involved in fixing different parts of the system. Only kindergarten and first grade are using the new curriculum, with four conflicting schedules for when it will be introduced in other years. The final exams—the only thing students and parents really care about—are still untouched. "As it is, the curriculum seems like a bridge to nowhere," says Rosalie Metro of the University of Missouri-Columbia.

According to Ms Metro, bureaucrats and foreign consultants have devised the reforms with little input from those with a di-

rect stake in the system. Over noodle and fish soup, a group of teachers lament that they are never consulted about changes in the classroom. The National Network for Education Reform, an organisation of students, teachers and civil-society organisations, says the Ministry of Education does not listen. Thein Lwin, who is a member of the network, used to advise Ms Suu Kyi, but was sacked after helping students air their grievances during the passage of the education law. The new government may want more critical thinking in the classroom, but it does not seem to welcome it in public life. ■

Banyan | Stage fright

A film about heroism brings out the worst in India's politicians



THE plot was made for Bollywood: a princess so beautiful that a lustful prince besieges a spectacular fortress to catch her, and so virtuous that she hurls herself into a fire rather than surrender. Movie producers were not the first to be inspired by the story of Padmini, the loyal wife of the Rana of Chittor. The French composer Albert Roussel's "Padmavati", an opera about this paragon of princesses, debuted in Paris in 1923. A century before that James Tod, a British officer and amateur historian, incorporated the tale in his "Annals and Antiquities of Rajasthan", a work widely translated and reprinted in India. His romantic version appealed especially to Rajputs, the Hindu warrior caste that supplied the rulers of numerous princely states in western India. The image of the radiant Padmini foiling a Muslim invader fitted a narrative of heroic resistance that was far more enchanting than the messy truth, which was that Rajput rulers generally fought each other as much as they did Muslim or European invaders.

The story appears to be the invention of a sixteenth-century Sufi poet by the name of Malik Muhammad Jayasi. His epic poem, "Padmavat", concludes with the frank statement: "I have made up this story and related it." There are contemporary chronicles of the fighting Jayasi alludes to, which took place two centuries before he was born. These describe in some detail the siege and capture of Chittor castle in 1303 by Alauddin Khalji, the sultan of Delhi. They note the death in battle of the Rana of Chittor, but make no mention of his wife, nor of any motive for the siege other than territorial conquest.

Screen test

The latest version of the tale, a high-budget film called "Padmavati", was due to be released on December 1st. It stars Deepika Padukone, one of India's highest-paid actresses. During production last year, rumours leaked that the director, Sanjay Leela Bhansali, had included a steamy dream sequence that hinted at carnal relations between the Muslim warrior and the Hindu princess.

The rumour was enough to prompt Rajput extremists to attack the set during filming in Rajasthan earlier this year. Some dismissed the rumpus as a publicity stunt, an impression reinforced when a sting operation by Indian journalists revealed that, in exchange for money, the Rajput group cheerfully offered to attack

another film production. But as the premiere of "Padmavati" approached and extremists threatened to riot, politicians could not resist the temptation to wade in. One after another, the chief ministers of four states with lots of Rajput voters announced that they would ban this film that insulted the honour of the imaginary princess. Upping the ante, the senior spokesman in the state of Haryana for the Bharatiya Janata Party (BJP), which runs both the state government and the national one, said he would pay a reward of ten crore rupees (around \$1.5m) to anyone who brought him the severed head of Ms Padukone.

Ms Padukone's head is probably safe, and "Padmavati" will, in all likelihood, still be released after its makers agree to some small changes with government censors. Indeed, the publicity may well win it big audiences. Moreover, after a prolonged and unseemly silence from the leaders of the BJP, including Narendra Modi, the prime minister, the party is exercising some restraint: the bloodthirsty spokesman has resigned. But the lesson of the controversy is not that sanity prevailed. It is that India's politicians are all too happy to pander to extremist sentiment, however silly it may be, so long as it flows in a useful direction.

With another election always around the corner—Mr Modi's home state of Gujarat goes to the polls next week—why challenge a myth that echoes one of the BJP's vote-winning warnings, that Muslim seducers are waging a "love jihad" against vulnerable Hindu women? Perhaps not surprisingly, in Gujarat itself it was another film that briefly stirred more controversy. The anonymously produced clip, which was widely shared, shows a Hindu schoolgirl fearfully walking down a darkened street, with the Muslim call to prayer reverberating in the background. When she finally reaches home and falls tearfully into the arms of her parents, a voice explains that in the past "we" were fearful, but now Mr Modi is here to protect us.

Even India's Supreme Court appears vulnerable to the trope of a lurking Muslim menace. In late November it produced a bizarre fudge in the case of Hadiya, a 25-year-old convert to Islam whose Hindu parents had persuaded a lower court to separate her forcibly from her Muslim husband and return her to the family, on the ground that she was a victim of love jihad. Ms Hadiya has repeatedly and loudly declared that she wishes to be with her husband. But instead of ruling that as an adult citizen of a secular republic, she had a right to choose, they ordered her to go back to college and be placed under the "guardianship" of its dean.

There are many countries where, with questions of belief and communal identity, many people seem keen to suspend judgment, quash doubts or simply to ignore bright, plain facts. Myths are so much more energising, and those who insist on dreary evidence risk being charged with sins that range from killjoy pedantry all the way to high treason. This is very much the case for India and its immediate neighbours, but with an added pinch of spice, which is that people in power often show unusual glee in posing as defenders of tradition, however that may be defined to suit their purposes and whatever the consequences. More than others, Indians should know that such play-acting heroism is a dangerous game; all too often it is just such seemingly silly things as a rumour about a film, or a suspicion of profanity, that spark runaway destruction. Commenting on the "Padmavati" controversy, Pratap Bhanu Mehta, one of India's most insightful commentators, lamented the failure of its politicians to stand up for freedom. "The usurper of peoples' liberties", he warned, "will always speak in the name of their sentiments." ■



Society

Life imitates nightmares

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29 Help for the propagandists

BEIJING

In the capital, scandals bridge a social divide

IN 2016 a short novel by Hao Jingfang, a young Chinese writer, won a Hugo award, an international prize for science fiction. In her story, "Folding Beijing", the population of the capital has been separated into three groups who not only live in different areas but are not even awake at the same times. The 5m members of First Space—the rulers—are allowed to work, eat and go outside between 6am one morning and 6am the next. The 25m middle-class occupants of Second Space are up and about from 6am on the second day to 10pm that same night. The downtrodden denizens of Third Space are awake only between 10pm and 6am on the third morning, when the rulers wake and start the cycle again. Drugs keep everyone asleep, except during their hours of wakefulness.

Ms Hao has just announced that her story of a divided capital is to be made into a film. But in the past two weeks, real life in Beijing has been telling it in tragic form. On the evening of November 18th a fire broke out at a warehouse-cum-apartment block in a shantytown in southern Beijing populated by migrants—poor workers from rural areas of China whom district officials sometimes call “low-end people”. Nineteen migrants died, including seven low-

end children.

As in the fictional “Folding Beijing”, the real city government has a maximum target size for the capital’s population: 23m in 2020, only 1m more than in 2016. To achieve this, the authorities have been booting out vulnerable people: migrants from the countryside. Their places of work are being closed down. Substandard housing, the only sort they can afford, is being condemned as unsafe. Activists say 3m migrants have been evicted from Beijing and other big cities in the past five years.

Unsafe spaces

The day after the disaster Cai Qi, the Communist Party chief of Beijing municipality, announced a citywide fire-safety inspection. This quickly morphed into mass evictions, starting in the shantytown. The police went round nearby buildings that had been slated for demolition, handing out eviction notices and giving people a few hours to leave. Water and electricity supplies were cut off. State media were instructed to use official bulletins “without exception”. (Such reports have not dwelled on the misery of those evicted.) The line of the dispossessed snaked into the night, looking for somewhere to rest. “It looks like

Beijing is not for people like us,” said one. Volunteers who provided shelters to protect the newly homeless from freezing temperatures were told to stop doing so.

Meanwhile, the wealthier population of Second Space was dealing with its own scandal. On November 22nd eight parents of toddlers at a costly kindergarten in Beijing filed a report to the local police saying they had found needle marks on their children. They claimed—albeit without corroboration—that the toddlers had been forced to swallow tablets without explanation and had been told to strip naked and endure “health checks” by “grandpa doctor” and “uncle doctor”.

Allegations of inexplicable cruelty have a familiar ring. In October security cameras at a nursery in Shanghai had caught staff force-feeding toddlers mustard and sterilisers. In May in Zhejiang province a teacher had jabbed a syringe of blue paint into the buttocks of children who were refusing to take a nap. As after the fire, censors went into overdrive to suppress news about the kindergarten in Beijing. “Do not report or comment on the matter,” they said, as they blocked mentions of the name of the Chinese firm that owns the nursery in Beijing, RYB Education, which is ➤

listed in New York. The company said it had suspended staff who were allegedly involved, and that it was investigating the matter. The city's education commission promised that henceforth every kindergarten would be inspected regularly.

Hitherto in the capital, middle-class scandals and the travails of poverty have usually unfolded as if on different planets, like in "Folding Beijing". Those concerned about posh schools or house prices rarely worried about the problems of migrants and vice versa. But in the story, the protagonist inadvertently brings the separate spaces together when he tries to earn enough money to send his adopted daughter to a school where she can learn to dance. Similarly, in real-life Beijing, a fierce online reaction has broken through the divisions that usually separate middle-class scandals from those affecting the poor.

Online commentators were quick to link the two. A pseudonymous article on WeChat, a Chinese messaging app, compared the scandals to the Second and Third Spaces of Ms Hao's tale. It argued that "delusions" in the capital were being "folded away". The article was promptly deleted.

Despite censorship, angry commentary still appeared. On WeChat, legal scholars doubted the legality of the migrant evictions. "When you need construction workers," wrote a user of Weibo, a microblogging site, "you call them fellow workers. When you don't have enough for them to do, you call them migrant workers. When you are through with them, you call them 'low-end people' and send them packing."

Unusually, some of the criticism has been overtly political. More than 100 people, including public intellectuals, signed a petition saying the evictions were illegal, an abuse of human rights and "clearly the government's responsibility". With heavy irony, another commentator wrote that just one month after a five-yearly party congress in Beijing, the city government was providing a taste of the "splendid future" promised at the gathering.

At the congress Mr Xi argued that social inequality and the gap between rich and poor were the biggest problems facing China. In particular, party officials fear, younger migrants, born in cities to parents who themselves migrated in the 1980s, could prove a threat to social stability because they have had little or no education in their urban homes, no longer have connections to the countryside as their parents did and—for some of the men—will not be able to marry because of a skewed sex ratio. These are the people who are being evicted from Beijing. If the government's main response to their problems is repression, one would be tempted to agree with the character in "Folding Beijing" who tells the protagonist: "The current government is too inefficient and ossified. I don't see much hope for systematic reform." ■

Propaganda

Happy bunny

SHANGHAI

The private sector is helping the state to modernise its message

THE Communist Party's publicists, though powerful and feared, are not known for their skill in winning audiences. Their output for cinema and television is often ridiculed (albeit discreetly) as wooden, out of touch and simply not believable. They have tried to up their game, rolling out cute animations and rap videos, but with limited success. Their attempts are like those of an unfashionable adult trying to look hip by wearing teenagers' clothing: embarrassing and off-putting. Last year the party's own disciplinary body accused official propagandists of failing to meet the demands of the digital era.

The private sector has had better luck. In recent years non-state firms have been churning out works that have the kind of impact the party craves. The goal of such businesses is to make money, not to create propaganda for its own sake. But to survive they need to stay in the party's good books. So they have found ways of producing pro-party entertainment that is popular. A common technique is appealing to youthful patriotism.

A good example of the genre is "Wolf Warrior 2", a film released in July about a Chinese soldier in Africa who saves hundreds of his compatriots and locals from wicked American mercenaries. It closes with an on-screen message: "Citizens of the People's Republic of China. When you encounter danger in a foreign land, do not give up! Please remember, at your back stands a strong motherland." Audiences



Wu's dunnit

stood and applauded. Some broke into the national anthem.

The movie has grossed almost 5.7bn yuan (\$870m), ten times as much as its (also big-hitting) "Wolf Warrior" predecessor, released in 2015. It is by far the biggest box-office hit ever in China and just shy of the top 50 of all time globally. The extraordinary success of "Wolf Warrior 2" has grabbed headlines in China, although on November 25th it did not win a prize at the annual Golden Horse awards in Taiwan, the Chinese-language movie industry's equivalent of the Oscars. Chinese media speculated that its pro-party message—hardly popular on the island—may have ruled it out as a candidate.

The director and lead actor, Wu Jing (pictured in character atop a military vehicle), was using a tried and trusted formula. In 2016 "Operation Mekong", about Chinese soldiers battling an Asian drug-trafficking gang, grossed 1.2bn yuan and was the sixth-biggest earner at the Chinese box office that year. Production and distribution of that film were privately led.

State media have praised "Wolf Warrior 2" and "Operation Mekong" for launching a new era in the development of what are officially known as "main melody films", that is, ones that promote the party line. The party itself had been trying to achieve such a breakthrough since the 1990s, when it began encouraging state-employed screenplay writers and directors to mimic the storytelling techniques of their commercial counterparts. It achieved occasional successes, such as with "The Founding of a Republic" in 2009, but nothing on the scale of "Wolf Warrior 2".

Online, too, the private sector has taken the lead. One example is "The Chronicle of the Rabbits", a series of animations about China's modern history. Since it began circulating online two years ago, it has been watched more than 500m times. The cartoons depict the party as a rabbit that is weak and small at first but ultimately overcomes countless hurdles to become strong. As a result, netizens often use the term "our rabbit" to refer to China. State media have extolled the series, even though Lin Chao, its creator, has insisted that he has no links with the government.

The party can take some credit for the success of such entertainment. It cultivates the nationalism that feeds it; for example, by promoting "patriotic education" in schools. Censors tilt the playing field by blocking Hollywood films when their release might tempt audiences away from favoured home-grown ones. They also ban anything that they deem to be unpatriotic—including anything critical of the party. No matter what accounts for the recent success of main melody works, official propagandists can take it easy. The private sector is helping them do their work, and making big money from it. ■



The Trump administration

Dr Carson's operation

BALTIMORE AND WASHINGTON, DC

The federal housing agency embodies the pathologies afflicting the White House

BEN CARSON, a celebrated neurosurgeon and unsuccessful presidential candidate, had no experience in political office or housing policy before Donald Trump nominated him to lead the Department of Housing and Urban Development (HUD). It was unclear what Dr Carson, long sceptical about government assistance and social engineering more generally, would do with an agency that funds rental-assistance schemes for the poor, only half of whom actually live in cities (despite what the department's name suggests). The administration proposed a 13% cut in HUD funding in its first budget. Dr Carson seemed not to know how individual programmes would be affected when testifying before Congress. HUD, with its annual budget of \$46bn, is a tiddler compared with other federal departments, but in several ways it is a sort of miniature version of the Trump administration.

In the nine months since he took the post, Dr Carson has stayed inconspicuous and inscrutable. The agency seems directionless. Only four of the 13 top positions, which must be confirmed by the Senate, have been filled. No nominee has been announced to be either the inspector-general or head of the policy development and research office. Eric Trump's wedding planner runs the agency's largest regional office, in New York. Local public-housing agencies, which actually administer the

federal programmes with HUD funds, privately complain of uncertainty. Dr Carson's most significant policy decision to date has been a two-year delay of the "small-area fair market rents" (SAFMR) rule, finalised by the Obama administration, which aimed to help voucher-holders move to better neighbourhoods. This is especially perplexing because five years of testing showed that the rule has achieved its goals while reducing expenses, which conservatives should cheer.

The rule affected the most important programme run by HUD, known formally as the Housing Choice Voucher programme and colloquially as Section 8. This helps 2.2m poor households with an average income of \$13,500. Lack of funding means that only a quarter of those eligible for such assistance receive it. Los Angeles recently reopened its waiting list after a 13-year hiatus. Those lucky enough to obtain vouchers need pay only 30% of their income towards rent. The government covers the rest, but only up to what is known as the "fair market rent" (FMR)—generally the 40th percentile rent in the surrounding area. Enthusiasm for housing benefits has long been half-hearted. The federal government forgoes twice as much revenue because of the mortgage-interest deduction as it spends on subsidising rent.

Because rates are calculated across an entire metropolitan area, the algorithm is

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poorly suited to cities. In New York City, for example, the FMR for a one-bedroom flat is a measly \$1,357. When recipients settle in poorer areas, where market rents are actually below the FMR, landlords who specialise in low-income housing reap the benefits of a guaranteed, possibly inflated, government cheque each month. Low rent ceilings, the tendency of poor families to stay in their neighbourhoods and the ability of landlords in nicer parts to refuse tenants with rental assistance all mean that the programme concentrates many recipients in racially segregated and impoverished areas—the opposite of what it was intended to do. Depressingly, the median neighbourhood poverty rate is identical for poor children, whether their families hold a voucher or not.

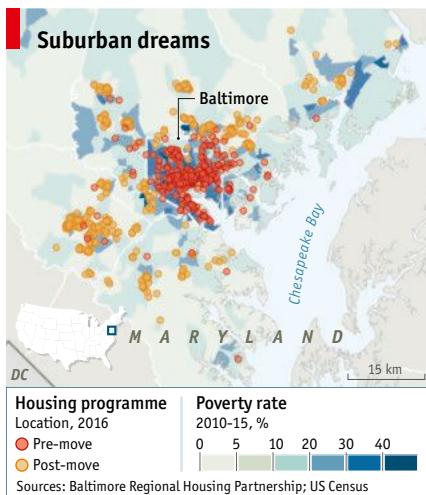
HUD has long been aware of this problem. An interim fix was to boost payment standards in problem areas to the 50th percentile rent, rather than the 40th. This did not improve matters. Despite the extra spending, neighbourhood poverty rates and housing quality were unchanged. The SAFMR rule, which would have taken effect on October 1st, took a different approach, requiring cities to calculate rents at the zip-code level, rather than across an entire metro area. The evidence for changing the rules is powerful. Raj Chetty, Nathaniel Hendren and Lawrence Katz, all economists, found big benefits for poor children when their families were randomly assigned vouchers allowing them to live in better neighbourhoods. Adult earnings shot up by 31%, rates of college attendance rose 32% and the incidence of single parenthood dropped by 30%.

Though HUD insists that more time is needed to study the rule, some cities have already tried it out, with promising results. In Dallas, which implemented a sim-

ilar rule after a court settlement, the effects have been encouraging. Research by Robert Collinson and Peter Ganong shows that voucher-holders moved to areas with less crime, poverty and unemployment. Testing in five other areas by HUD has shown that determining rents on a zip-code basis actually decreases costs, because fewer overpayments in poor areas more than compensated for higher rents elsewhere.

The results have been similarly compelling in Baltimore, where the Baltimore Regional Housing Partnership has implemented a programme to move some residents to better neighbourhoods. (Baltimore calls them "opportunity areas"; see map.) Usually that means moving people out of the city, where decrepit terrace houses sag into the street, and into the surrounding counties. Residents benefiting from Baltimore's programme moved from areas with a 33% poverty rate to places where it was 8%. Their children attend schools where 79% of students are proficient in reading, compared with 47% in Baltimore city schools before the move.

All of which makes HUD's delay even more mystifying. Housing advocates fear a permanent reversal. The agency, which did not make any officials available for interview, said through a spokesman that they were "hardly retreating" from the policy, noting that public housing agencies could voluntarily implement the rule if they wanted to. Most will not, because they are cash-strapped and generally detest any change to business as usual. The agency has also cited the need for more research, a lack of technical guidance (for which HUD is itself to blame) and the general deregulatory mood of the Trump administration. None of these reasons is convincing. And since there is no consolidated lobby of slumlords bending the agency's ear (though the National Association of Home Builders was opposed), it is hard not to conclude that the governing principle at HUD is to take whatever the Obama administration was doing, and do the opposite. ■



The CFPB

One bureau, two guvnors

NEW YORK

A federal agency born in controversy becomes a farce

FOR anyone concerned that American consumers have suffered from not having enough financial regulators on the beat, there is now clear evidence of too many. The post-Thanksgiving working week began at the Consumer Financial Protection Bureau (CFPB) with two people claiming to hold the temporary leadership mantle, after the abrupt resignation of the previous director, Richard Cordray. Mick Mulvaney, who heads the Office of Management and Budget, was given a second job by the president, operating under the authority of a commonly used statute. He arrived at the agency with a bag full of doughnuts and an open invitation for employees to come by and grab one. As they munched away, they could read an e-mail signed by "Leandra English, Acting Director", a relatively young staff member whom Mr Cordray promoted to deputy director on his way out, with the intention of putting her in charge under the authority of a clause in the Dodd-Frank Act.

America's favourite form of warfare followed—a deluge of conflicting legal opinions followed by a petition to the bench. Ms English requested an emergency restraining order from the Washington, DC, District Court; it was denied. Her supporters attributed the cause to the judge having been appointed by Mr Trump. They were not helped by a ruling in favour of Mr Mulvaney from the CFPB's own legal department.

These are, however, still early innings. Because the dispute goes beyond conflicts in statutes to a constitutional issue, the "Appointments Clause" in Article Two, which covers the relative authority of the various branches in forming a government, there is the possibility that this is the rare sort of dispute that is quickly brought before the Supreme Court. If they take the case, the justices may end up weighing in on simmering debates over the power and autonomy of administrative agencies. In the meantime, there will be no shortage of political theatre, if only because many of the participants find it useful. Mr Mulvaney tweeted pictures of himself hard at work, and sent e-mails instructing employees to ignore Ms English. Unable to establish her authority in the office, Ms English settled for a photo-op with two Democratic senators fond of cameras and of opportunities to bash the administration, Charles Schumer and Elizabeth Warren.

For Mr Cordray, an Obama appointee



Taking the Mulvaney

widely expected to run for governor of Ohio, the result is publicity for being part of the resistance. That is also true for Ms English, who had been just another cog in a bureaucracy. Republicans have much to gain as well. They have long argued that the CFPB is overtly political, misuses the law and is not accountable for its actions. Those who agree will probably see all these elements in the current drama.

The substance of the fight will take place over dry material. On one side is the Federal Vacancies Reform Act, which allows presidents to fill temporary positions of this sort. On the other is a clause in the Dodd-Frank Act which says the deputy director "shall...serve as acting Director in the absence or unavailability of the Director." Whether this covers the resignation of a director is blissfully unclear.

Beyond the squabble are deeper reservations. The CFPB was created with truly unusual characteristics. It is funded by the Federal Reserve, whose profits are a by-product of conducting monetary policy. This odd arrangement is designed to circumvent Article One of the Constitution, which puts spending decisions before Congress. The lack of financial oversight is compounded by its leadership structure. The bureau has just one director, unlike most agencies which are led by commissions that have bipartisan characteristics.

For supporters, the design ensures independence; to critics, it meant excessive power. Mr Cordray did little to resolve differences. His tenure included disputed settlements, notably in car finance, that strayed far from the specified mission of the bureau, and heated debates over the regulation of high-interest "payday" lenders. Shockingly, though obscured by all this, there are areas of agreement. Many Republicans say they support a financial consumer protection agency, though one with a more conventional structure. ■

Presidential tweeting

A very British row

Donald Trump's rebuke to Theresa May was not just another tweet

EARLY morning fusillades of gibberish are nothing new in the Trump presidency. Nor is a tendency to attack allies, or to give encouragement to racist groups. On November 29th, though, the president achieved a rare triple. On waking he seems to have grabbed his phone to attack CNN, give air to an old conspiracy theory and broadcast propaganda from a hitherto obscure band of British xenophobes to his 43.6m Twitter followers. Later in the day he had a go at Britain's prime minister, Theresa May, whose office had earlier criticised him for thinking with his thumb. One sound strategy for staying sane in 2017 has been to ignore Mr Trump's tweets. Yet this morning barrage revealed traits that go to the core of the man in the Oval Office.

One is an astonishing lack of curiosity about where information comes from. Britain First, whose nonsense the president retweeted, was until this week at the fringe of the fringe of far-right English politics. Its members are a hapless bunch, too bone-headed to conceal their animus against brown people. The group's leader, Paul Golding, was expelled from the slightly more mainstream British National Party (BNP), which itself is marginal (it gained more than 1% of the vote in only three of Britain's 650 parliamentary constituencies in the general election earlier this year). Mr Golding was deemed too racist for the BNP when he picked a fight with its only non-white council member. Mr Golding has a taste for actual fights, too: he has admitted a charge of assault. As hardly anyone in Britain had heard of Britain First, neither presumably had Mr Trump. But the group sounded like America First, which must have been flattering and therefore good. And it seemed to share Mr Trump's views on Muslims, which was good, too. That was all the information the president needed before giving his endorsement.

A second characteristic is a thin skin. Despite the power of his office, Mr Trump often feels picked-upon. When Mrs May's staff rebuked him for the Britain First stuff, he could not resist: "Theresa, don't focus on me, focus on the destructive Radical Islamic Terrorism that is taking place within the United Kingdom. We are doing just fine!" When Mr Trump was rebuked for criticising London's (Muslim) mayor after a lethal terrorist attack, his tweets on the subject became more frenzied. Mr Trump felt similarly aggrieved when he was denounced for his equivocal response to a

white-supremacist march in Charlottesville ("many sides" were to blame).

Mrs May, whose government badly wants a trade deal with America after Britain leaves the European Union, was taking a calculated risk. Most foreign leaders have already worked out that the president responds well to big parades and badly to well-intentioned criticism. In Mrs May's case, though, the rebuke was worth it. Mr Trump has, amazingly, managed to unite MPs who can agree on little else right now, as well as to promote interfaith dialogue. Prominent British Muslims were joined in condemnation by the Archbishop of Canterbury, Justin Welby. Britain's Chief Rabbi, Ephraim Mirvis, has previously said he thinks Mr Trump is a racist. After his election win last year, discussions about a state visit to Britain began. One sticking point was that Mr Trump wished the occasion to be optimised for pomp: gilded horse-drawn carriages and all. It was thought more prudent, if he came, to helicopter him in to the queen's garden, avoiding crowds of protesters. If the state visit happened tomorrow, there might be a riot.

The good news, for transatlantic relations at least, is that Mr Trump's tendency to go after steadfast allies can be put right, with a little stroking. Malcolm Turnbull, Australia's prime minister, was an early victim, but America's policy towards it has barely changed. British prime ministers are obviously paranoid about maintaining what they see as the special relationship with America's presidents. Moreover, the foundation of the relationship is shared intelligence and diplomacy, which is relatively tweet-resistant. In fact, for Mrs May, who is trying to negotiate the world's most complicated divorce while hampered by unpopularity and a self-sabotaging cabinet, a spat with Mr Trump could be just what she needs. ■



In happier times

SCOTUS and tech

Phoning it in

NEW YORK

The justices want to enhance privacy protections for the digital age

THE nine justices of the Supreme Court are used to applying 18th-century principles to an America that would bewilder the constitution's framers. Yet sometimes this is really hard. On November 29th the court considered how a 226-year-old rule, the Fourth Amendment's ban on unreasonable searches and seizures, bears on one arrow in the government's investigative quiver: tracking people's movements via their mobile-phone signals. At least six justices seemed keen to widen the Fourth Amendment umbrella for the digital age, but no single way to do so emerged. "This is an open box", a forlorn Justice Stephen Breyer said. "We know not where we go."

The matter dates to 2011, when Timothy Carpenter was arrested for masterminding a string of armed robberies in Michigan and Ohio. The FBI built their case against Mr Carpenter on 127 days of mobile-tower data placing him near the scenes of the crimes. Under the Stored Communications Act of 1986, investigators who have "reasonable grounds to believe" a suspect's electronic data include "specific and articulable facts" that are "relevant and material" to their investigation can secure an order compelling providers to hand it over. That's a far easier bar to reach than reasonable suspicion—the threshold for a search warrant. In *Carpenter v United States*, the justices are considering whether this higher standard, known as "probable cause", should apply when the government seeks to track digital footprints.

According to Nathan Wessler, Mr Carpenter's lawyer from the American Civil Liberties Union (ACLU), collecting location information without a warrant defies a "long-standing, practical expectation" that Americans' "longer-term movements in public and private spaces will remain private". Government collection of location data "is a categorically new power that is made possible by these perfect tracking devices that 95% of Americans carry in their pockets". And with an explosion of newly built cell towers, providers can now estimate their users' positions within "a broadcast radius as small as ten metres", or "half the size of this courtroom".

Justices Samuel Alito and Anthony Kennedy pushed Mr Wessler to explain why an individual would be more worried about keeping his tracks out of spooks' file drawers than safeguarding his bank or landline phone records—data Supreme Court precedent says the government may access ►

► without a warrant. As sensitive as that information may be, Mr Wessler replied, it does not compare to "a minute-by-minute account of a person's movements and associations" over weeks or months.

Justice Sonia Sotomayor agreed—and then some. Carpenter may concern only cell-tower data, but "a cell phone can be pinged in your bedroom", she said. "It can ping you in the most intimate details of your life. Presumably at some point even in a dressing room as you're undressing." One day soon, she mused, "a provider could turn on my cell phone and listen to my conversations." Given these imminent risks to Americans' privacy, Justice Sotomayor gestured towards a more robust application of the Fourth Amendment than Mr Wessler was requesting.

Chief Justice John Roberts, a conservative, was an unlikely ally in this line of questioning. When Mr Wessler said that police should be able to see no more than 24 hours of cell-location data without a warrant, the chief suggested that warrantless access to even a smidgen of data may violate an individual's privacy, outflanking the ACLU lawyer from the left. He asked Michael Dreeben, the government's lawyer, how the claim that people voluntarily share location data when they wander about with their phones squares with *Riley v California*, a ruling of 2014 that police need a warrant to search a mobile phone. Riley, the chief said, "emphasised that you really don't have a choice these days if you want to have a cell phone."

With only Justices Alito and Kennedy seeming to buy the government's argument, the newest justice, Neil Gorsuch, voiced his own take on why Mr Carpenter should win. Justice Gorsuch doubted that "the original understanding of the constitution" sanctioned easy access to individuals' location information—especially if

Americans have a "property interest" in their own data. Citing John Adams, he noted that one impetus for the revolutionary war was the government's use of "snitches and snoops" to spy on Americans. Open-ended "writs of assistance" gave authorities licence to search anything they liked, infuriating the colonists and inspiring the Fourth Amendment.

For Jeffrey Rosen, president of the non-partisan National Constitution Centre in Philadelphia, Justice Gorsuch's approach was somewhat surprising, if reassuring. "It suggests that he, like his predecessor Justice Antonin Scalia, may be a vigorous de-

fender of the Fourth Amendment right to be free from unreasonable searches of our digital effects." Ian Samuel of Harvard Law School agreed. The colonial-era reference caught the government's lawyer "entirely off-guard", he says. Now the justices must reckon with how to find for Mr Carpenter—no mean feat in light of the competing interests of privacy and policing. As he often does, Justice Breyer turned to the lawyers for help. "So where are we going? Is this the right line?" A solid majority of the justices know what decision they want, but "how do we, in fact, write it?" An answer should appear by the end of June. ■

America and Russia

Red mist

MOSCOW AND WASHINGTON, DC

How the Russia investigation looks from Russia

BUZZFEED recently broke an explosive story about Russia's meddling in America's elections. On August 3rd 2016, it reported, just as the presidential race was entering its final phase, the Russian foreign ministry wired nearly \$30,000 through a Kremlin-backed bank to its embassy in Washington, DC, with a remarkable description attached: "To finance election campaign of 2016". Worse still, this was only one of 60 transfers that were being scrutinised by the FBI. Similar transfers were made to other countries. The story created a buzz, but not of the kind its authors hoped for. "Idiots. The Russian election of 2016, not the US one, you exceptionalist morons," tweeted a prominent Russian journalist, pointing out that Russia too held parliamentary elections in 2016 and that the money was most probably sent to the embassies to organise the polling for expatriates. This was confirmed by the Russian foreign ministry. BuzzFeed updated its story, but did not take it down.

The author of that tweet was not a Kremlin agent but Leonid Bershtsky, a sharp-tongued writer for Bloomberg News and co-founder of *Vedomosti*, Russia's leading business newspaper. "The Trump-Russia story is becoming surreal," he wrote in a follow-up column while also offering a disclaimer: "I grew up and lived most of my life in Moscow. My perspective is that of a guy from Russia, who hates the current government there but loves the country itself." For Russian liberals, the spectacle of American commentators imitating the Kremlin, which has long blamed every problem on America, is dispiriting.

Such people have no illusions about the Kremlin, and most of them have been on the receiving end of its disinformation

and repression. Leonid Volkov, the campaign manager for Russia's foremost opposition politician, Alexei Navalny, who—like his boss—has been in jail more than once, wrote recently, only half in jest: "I can't be silent any longer... I understand that American society and the liberal media, stuck somewhere between denial and anger, still cannot reflect upon and accept Hillary Clinton's defeat in the election a year ago. But the investigation of Russian intervention is not just a disgrace, it's a collective eclipse of reason, it's lunacy."

Russians who think like Mr Volkov have long looked to America as the model of how a free press should be. For them, it is maddening to watch the news organisations they so admire building Mr Putin into an all-powerful Bond villain, thereby elevating his stature among the many Russians who credit him with making Russia a geopolitical player again. "If they fear us, they respect us," runs a Russian saying. The aim of Mr Navalny's campaign, by contrast, is to show that the king is naked, not to dress him up in armour.

Active measures

In September Morgan Freeman recorded a video promoting the launch of a non-profit organisation called the Committee to Investigate Russia. The Academy award-winning actor spoke in a deep, deliberate tone as alarming music played in the background: "We have been attacked. We are at war." The committee includes actors and former spooks, including James Clapper, a former director of National Intelligence, and Leon Panetta, a former director of the CIA and White House chief of staff. "Imagine this movie script," intones Mr Freeman. "A former KGB spy, angry at the collapse of ►



Pinpointing Justice Kennedy

► his motherland, plots a course for revenge...he sets his sights on his sworn enemy, the United States. And like the true KGB spy he is, he secretly uses cyber-warfare to attack democracies around the world ...And he wins...Vladimir Putin is that spy. And this is no movie script."

Mr Putin almost certainly did not expect Mr Trump to win. His government's cyber-activity was more a haphazard and petty response to what the Kremlin perceived to be Hillary Clinton's intervention in Mr Putin's election of 2012. In contrast to the cold war, when all "active measures" were designed and conducted through a specially designated department of the KGB, some of the hacking and social-media disinformation was outsourced to mercenaries and "patriotic hackers", as Mr Putin described them. As a result, says Maxim Kashulinsky, the founder and publisher of Republic, a liberal news site, many Russians have been genuinely surprised by America's heavy-handed response to what are seen inside the country as pranks.

But Mr Putin underestimated the shock this reckless behaviour would cause in America. For many Americans, the history of Russia's stand-off with the West ended in 1991. "By the grace of God, America won the cold war," George H. W. Bush told Congress a few weeks after the collapse of the Soviet Union. For Russians, by contrast, after a brief hiatus in the 1990s, state propaganda returned to depicting America as the arch-enemy.

The Kremlin has long argued that it is under an "information attack" from the West. "In this frame there is no space for any idea of 'truth' or universal values," argues Peter Pomerantsev, an expert on disinformation at the London School of Economics, in an article in the *American Interest*. "All information is war." By accepting Russia's frame of reference, the West, he

argues, reinforces the Kremlin's line and amplifies its efforts to show that America works in the same way as Russia.

During the cold war, the Soviet Union aimed to infect America and the West with its Communist ideology (or quasi-religion) and capture as many minds on the left as possible. Those Westerners who opposed capitalism played the part of useful idiots for the Soviet regime. Today's Russia has the opposite goal. It projects no coherent ideology or religion beyond a mixture of authoritarianism and nationalism, but aims to portray its adversaries as being as cynical, corrupt and conspiratorial as Russia's own leaders. Those who mimic the style of the Kremlin's anti-Americanism play the role of useful idiots now.

Radio Moscow

"Neither Russia Today (RT) nor trolls are interested in really influencing US audiences," says Vasily Gatov, a Russian media analyst and visiting fellow at the University of Southern California, referring to the Kremlin-financed news outlet. "Their goal is to make the Western system as such react to their work." Their effectiveness is judged (and rewarded accordingly) not by what they actually achieve, but by the level of noise they create in the American media. Russian propagandists regularly and gleefully recite articles about "Russia's menace". RT is already capitalising on its image. Its advertisement in London reads: "The CIA calls us a 'propaganda machine'. Find out what we call the CIA." Branding RT a foreign agent, as America has just done, may be accurate—but it also plays into the Kremlin's hands.

From the Kremlin's point of view, this is a welcome departure from the cool realism displayed by Barack Obama, who dismissed Russia as a regional power and described Mr Putin as a "bored kid in the back

of the classroom". Few things infuriate Mr Putin more than being ignored. He has been trying to get America's attention ever since, and appears to have succeeded.

But this recognition carries a hefty price-tag for the Kremlin. As a result of Mr Trump's election and Mr Putin's attention-seeking, Russia has emerged as one of the few bipartisan issues in American politics. This has allowed both parties to come together to pass the bill on Russian sanctions. "It is like Christmas-time for us—there is no way we could have passed this bill through the Congress under Obama," says one Republican staffer in the Senate.

The result is that American policy towards Russia is sounder now than it was under the two previous administrations. George W. Bush looked into Mr Putin's eyes; Barack Obama followed Russia's aggression against Georgia in 2008 with a "reset". Mr Trump has an unexplained affection for Mr Putin, but his room to change policy is limited by the toxic cloud around Russia's election interference.

Though Mr Trump enjoys long calls with Mr Putin, day-to-day policy has been left in the hands of professionals with few illusions about Mr Putin's intentions. Fiona Hill, the author of one of the most perceptive books about Mr Putin, oversees Russia at the National Security Council. Her boss, General H.R. McMaster, closely studied Russia's invasion of Ukraine and its use of disinformation. The defence secretary, General Jim Mattis, leaned towards supplying Ukraine with "lethal defensive weapons". "We need to manage tensions and avoid accidental clashes," one senior government official says. "But we are not looking for any positive agenda." You are not going to reach out if you get repeatedly punched in the face, the official says. "It is all about managing expectations. The lower the expectations, the easier they are to manage," argues a former official.

The policy of no positive agenda, says Kirill Rogov, a Russian political analyst, deprives Mr Putin of his favoured blackmailing tactic. "His threats and aggression are only worth something if the West steps back and offers concessions and resets in exchange for him not escalating further." This has repeatedly allowed Mr Putin to pocket his gains and present himself as a victor. If his counterparts refuse to negotiate, these threats lose their potency.

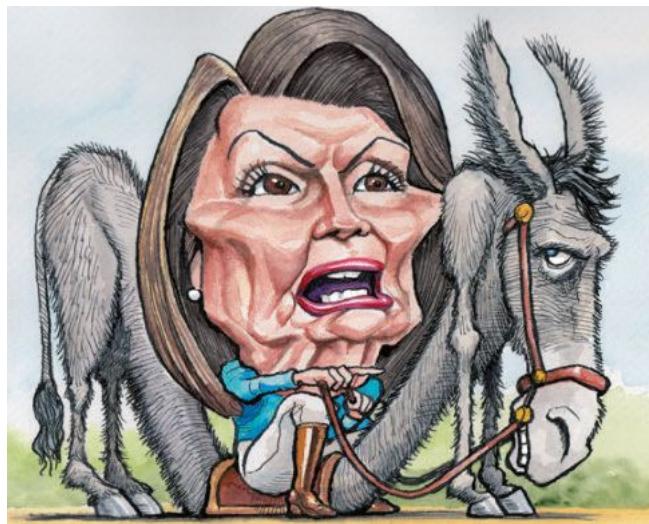
After two and a half decades of inflated hopes and expectations for peaceful coexistence, America is back to its old cold-war policy of containment and deterrence. One of the authors of that policy, George Kennan, concluded in his long telegram of 1946 that "the greatest danger that can befall us in coping with this problem of Soviet Communism, is that we shall allow ourselves to become like those with whom we are coping." This is worth bearing in mind as the Russia investigation rumbles on. ■



Bananas in pyjamas

Lexington | Enough already, Nancy

The Democratic leader in the House of Representatives causes more problems than she solves



AS AN illustration of what ails congressional Democrats, Nancy Pelosi's recent attempt to defend an 88-year-old party grande who was alleged to have shown up to work in his pyjamas, fondled generations of female employees and to have asked at least one of them to "touch it", is hard to beat. The Democrats' long-serving House leader, who is merely 77, had been asked on NBC about the allegations against Representative John Conyers of Michigan, the House's longest-serving member. She responded by calling him an "icon". Asked whether she believed his accusers, Mrs Pelosi blustered: "I don't know who they are. Do you? They have not really come forward." At least five former staffers of Mr Conyers, who was until this week the ranking Democrat on the House judiciary committee and a force in the Congressional Black Caucus, had at that time accused him of inappropriate behaviour. One had received a pay-off from his office funds.

That Mrs Pelosi should be tarred by the culture of impunity sex pests have been enjoying on Capitol Hill is, in a sense, cruelly unfortunate. As a successful Speaker of the House between 2007 and 2011, and the first woman to fill that role, she has done a lot for women's empowerment. She was also quick to realise her error. Her office put out a corrective statement shortly afterwards and Mrs Pelosi has since said she believes at least one of Mr Conyers's accusers, while in private she has urged the octogenarian congressman to resign, as he probably soon will. Yet her instinctive refusal to condemn him also reflected another sort of impunity, for too long enjoyed by the House Democrats' aged and complacent leaders, even as their party has become increasingly diminished and resentful of their command.

Even if the Democrats did not urgently need to attract younger voters to compensate for the meltdown in their working-class base, the fact that the average age of their House leadership is over 70 would seem problematic. Consider why this is, and it looks far worse. Mrs Pelosi and her fellow leaders are sustained by a sclerotic patronage system, of which her pandering to Mr Conyers was indicative, which has banished accountability and fresh talent from the upper reaches of the party. For her part, Mrs Pelosi remains in many ways an impressive leader—she is a relentless fundraiser and adept caucus manager, at once pragmatic and acceptable to the Democrats' ascendant left. Yet given that

her party is as unpopular as Donald Trump, and that she is the prime beneficiary of one of its main structural weaknesses, she is probably doing the Democrats less good than harm.

The offending system is itself testament to the cost of ducking difficult decisions. For while power has become increasingly centralised in both parties in recent decades, the Democrats have muddled that transition by maintaining some of the architecture of a more fragmented past. Where House Republicans have abandoned seniority rules and imposed term-limits on the chairing of congressional committees and subcommittees, for example, the Democrats have refrained. Those plums have duly been captured by a minority of increasingly aged Democrats in safe seats, an arrangement the well-organised black caucus has fiercely guarded. Most other Democratic House members, meanwhile, face increasingly arduous fights for survival, in a toxic political environment, with little prospect of leadership any time soon. Had Barack Obama won and hung onto the Illinois House district he once sought to represent, he might still be waiting to advance beyond the House energy committee, where his vanquisher in that primary contest, Bobby Rush, plies his trade.

No wonder many talented Democrats, recently including Rahm Emanuel, Kirsten Gillibrand and Chris Van Hollen, have quit the House at the first good opportunity. "At the end of each cycle, you ask yourself, 'Is what I can achieve worth the personal, financial and emotional cost?'" asks a former Democratic member of Congress, who concluded it was not. House Republicans have serious problems of their own, but at least a churn of congressional talent; the Democrats are by contrast a stagnant pool. The result is that one of the best reasons for retaining Mrs Pelosi is that there is no one obvious to replace her. This is insane.

Dissatisfaction with Mrs Pelosi within her caucus runs deep. On the basis of the unprecedently stiff leadership challenge she faced after the general election from Tim Ryan, a burly Ohioan, at least a third of House Democrats want her out. Yet few of the dissidents dare say publicly why she should go. Most blame the Republicans—as Mr Ryan did—by arguing that she has become so demonised by the right as to be repellent to swing voters. Yet while that is true, and a source of Republican glee, there is no proof it hurts the Democrats electorally. Only three people matter in House races, the candidates and the president. Given the Republicans' appetite for personal destruction, moreover, Mrs Pelosi's successor would in no time be similarly traduced. So here are four better reasons for Mrs Pelosi to move on.

Quit while you're ahead

First, no Democratic leader has been held accountable for nearly a decade of withering defeats for the party, including the reduction of its House representation to the lowest level since the 1920s. If Mrs Pelosi was serious in arguing, after her Conyers blunder, that politicians should be held to the same standard of accountability as the rest of us, she should belatedly take the hit. Second, her patronage nexus and controlling leadership style are obstacles to the reform and infusion of talent and ideas her party needs. Third, on a related note, much of that effort should be directed to reconnecting with working-class voters, at which Mrs Pelosi, who appears to think the minimum wage a boon for them, rather than a policy to help the lowest paid, is ill-suited. Fourth, her contribution to the Democratic Party has been immense. It would be a shame to sully it by overstaying her usefulness more than she already has. ■



Mexico

The democratic dedazo

MEXICO CITY

A crucial election campaign begins

ONE custom in Mexico's era of one-party rule was the *dedazo* (big finger), the president's choice of his successor, who would inevitably be elected to a single six-year term. The authoritarian rule of the Institutional Revolutionary Party (PRI) ended in 2000, but the *dedazo* returned on November 27th this year, when Enrique Peña Nieto, the president, chose his finance secretary, José Antonio Meade, as the PRI's candidate in the presidential election to be held in July. This time, though, the *dedazo* that counts belongs to the voters.

Mr Meade's selection begins a seven-month race for a tough job. The next president will have to deal with a soaring crime rate, anger about corruption, a weak economy and Donald Trump, who may by then have decided to tear up or drastically change the North American Free-Trade Agreement (NAFTA) between Mexico, the United States and Canada. Mr Peña's successor will also have to decide whether to carry on with reforms of the economy, energy and education that he began.

Mr Meade is by no means guaranteed to win. On the contrary, Andrés Manuel López Obrador, a left-wing populist who has twice run for president, is ahead in most polls. If his lead holds, he will win the one-round election. A third contender is Ricardo Anaya, the head of the centre-right National Action Party (PAN), who is expected to be named as its candidate in December.

Mr Meade will find Mr Peña's endorsement to be a mixed blessing. The president

is the least popular on record, with an approval rating of 26% (though that is more than double what it was earlier this year). Voters think he has done too little to fight crime and corruption and, after a conflict-of-interest scandal, they doubt his honesty. Five out of six voters say corrupt leaders are a "very big problem". In October 2,371 people were murdered in Mexico, the highest number on record for a single month. That makes a mockery of Mr Peña's pledge in 2012 to halve the murder rate.

The economy shrank in the third quarter of this year after a pair of earthquakes in September killed more than 450 people. A collapse of NAFTA would do further damage. Only one in eight Mexicans thinks the country is on the right track and nearly half say they would never vote for the PRI. A few months ago some observers speculated that the party might not even bother to field a serious candidate for the presidency.

Technocrat on a tightrope

But Mr Meade is certainly that. In choosing him, Mr Peña went for somebody with little political baggage and lots of intellectual heft. Mr Meade is the first candidate for a major political party who does not belong to any party. An economist with a doctorate from Yale University, he has held more jobs in the cabinet than any living politician, including in the government of Felipe Calderón, who was president from 2006 to 2012 and belongs to the PAN. Mr Meade is thought to be honest. According to a quick-

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ie survey after his nomination by GCE, a pollster, 23% of voters back him, putting him six percentage points behind Mr López Obrador. That is not a bad start, considering that a third of voters have never heard of Mr Meade.

Yet to win he will need to perform a horribly tricky political balancing-act. He must attract voters from the PAN, the PRI's long-time foe. Without them, "he is toast," says Luis Rubio of CIDAC, a think-tank. At the same time, he must fire up the PRI's supporters and make use of the party's formidable electoral machine. Yet just 11% of PRI members named Mr Meade as their first choice to be the party's presidential candidate.

If Mr Meade has his way, the election will be a referendum not on Mr Peña's record but on Mr López Obrador, whom opponents portray as a Mexican version of Venezuela's Nicolás Maduro (see Bello). AMLO, as Mr López Obrador is often known, mixes justified anger at the corrupt political establishment with populist ideas, such as making Mexico self-sufficient in energy and food.

He appeals mostly to the half of Mexicans deemed poor; ie, who make less than \$79 a month if urban (or \$56 if rural). Mr Trump's habit of insulting Mexico helps Mr López Obrador, since he is the most vociferous nationalist among the main candidates. Mr Meade's cross-party background buttresses Mr López Obrador's claim that there is no difference between the big parties, and that only he can rescue Mexico from the "mafia of power".

Lately, Mr López Obrador has all but discarded populist policies. On November 22nd his party, Morena, published a 415-page manifesto that promises nothing scarier than more spending on infrastructure and social programmes (and no tax rises to pay for it). His team has released a slickly produced biopic called "This is Me", ►

► in which he visits his hometown in Tabasco and tells his life story over evocative piano melodies.

Mr Meade's main rival for the anti-AMLO vote will probably be Mr Anaya, whose party has formed an alliance with the left-wing Party of the Democratic Revolution, Mr López Obrador's former party, and the smaller Citizens' Movement. Mr Anaya hopes this Citizens' Front will cut into Mr López Obrador's support while continuing to appeal to the PAN's core of pro-business voters. Last week the PAN announced that it favours a basic income for every Mexican, a measure designed to ap-

peal to Mr López Obrador's voters.

Mr Anaya's allies insist he is better placed than Mr Meade to defeat AMLO. Mr Meade will be seen as an "accomplice" in corruption for failing to denounce it in Mr Peña's government, they say. His soft-spoken style will fail to mobilise voters. "Meade is a good technician, but he is not a politician," says an adviser to Mr Anaya.

But Mr Anaya has handicaps at least as severe. He is less of a policy heavyweight than Mr Meade and less of a protest candidate than Mr López Obrador. Many Mexicans see the Citizens' Front as a marriage of convenience rather than one of conviction.

It could lose votes to Margarita Zavala, Mr Calderón's wife, who quit the PAN in October to run for president as an independent. Ms Zavala criticises the Front's candidate-selection process as "undemocratic" (the Front says it has not yet agreed on a process). She has a good relationship with Mr Meade dating from his service in her husband's cabinet; some analysts think she may eventually drop out and endorse him.

If that happens, the race may be between Mr Meade, a non-political member of the establishment, and Mr López Obrador, an anti-establishment politician. Mr Peña will be keeping his fingers crossed. ■

Bello | Despotism and default in Venezuela

The government has crushed the opposition. Dealing with its creditors will be harder

BACK in July, Nicolás Maduro's big problem was an opposition-backed rebellion against his plan to replace Venezuela's elected parliament with a hand-picked constituent assembly. More than 120 people died in mass protests and the armed forces briefly seemed to waver in their support for the government. Now Venezuela's dictator-president has his new assembly in place and the opposition where he wants it—divided and debilitated. But he has another problem: he is running out of cash.

After years of mismanagement, Venezuela's all-important oil industry is listing like a shipwrecked tanker. According to data provided by the government to OPEC, oil production in October averaged 1.96m barrels per day (b/d), down 130,000 b/d from September (and 361,000 b/d from October 2016). Subtract oil supplied for almost nothing to Venezuelans and to Cuba, and shipments to repay loans from China and Russia, and only around 750,000 b/d are sold for cash, according to Francisco Monaldi, a Venezuelan energy economist at Rice University in Texas. And although the oil price is up from its low of 2015, it is still a little more than half its level of 2012.

Because the regime's policies have all but crushed other businesses, oil now accounts for 96% of exports. Despite a brutal squeeze on imports, the government is struggling to service the debts piled up by Hugo Chávez, Mr Maduro's late predecessor and mentor. In October Standard & Poor's, a rating agency, declared Venezuela in "selective default". By October 27th the country was behind on payments totalling \$1.5bn, of which more than half was unpaid for more than 30 days.

Latin America has seen plenty of debt defaults, but this one is different. "I decree a refinancing and restructuring of all...Ve-



nezuelan payments," Mr Maduro said. He is fond of issuing decrees; he may be surprised to learn that creditors cannot simply be bossed around. He entrusted negotiations to his vice-president, Tareck El Aissami—a man financiers in New York cannot do business with because the United States says he is a drug trafficker (which he denies). Recent US sanctions also mean that Americans cannot accept new bonds from Venezuela, as a debt restructuring would require.

Some bondholders are now consulting their lawyers, according to Francisco Rodríguez of Torino Capital, a broker. One of their contractual options is to "accelerate" defaulted bonds, requiring their immediate full repayment—and then to seek a court order to seize oil cargoes and other assets. They may hesitate if they think the government will try to carry on paying—some of the delays are because bankers are now subjecting Venezuelan payments to close scrutiny. But "the ball is in the bondholders' court", says Mr Rodríguez.

All this means it was a funny time for Mr Maduro to choose to fire his oil minister and the head of the state oil company,

PDVSA. The new boss of PDVSA, Manuel Quevedo, is a general of the national guard, the paramilitary police who beat down the protests. His appointment comes after the arrest, allegedly for corruption, of more than 50 oil-industry managers close to Rafael Ramírez, Chávez's oil supremo, who was himself reportedly sacked as Venezuela's ambassador to the UN on November 29th. Mr Quevedo knows nothing of oil—but he is close to Diosdado Cabello, a former army officer who is Mr Maduro's chief rival in the regime. Analysts say Mr Cabello has long wanted to control the oil industry, the main source of money in Venezuela, since money is power.

One prospect glimmers through this murk. Mr Maduro is buoyed by the government's success in state elections in October. Demoralised opposition voters stayed away, and the regime managed to persuade many poor Venezuelans that if they did not vote for the government they might not receive rations of subsidised food. Fraud may have helped. By jailing uncompromising opponents, Mr Maduro has tamed others. Although part of the opposition is holding talks with the government in the Dominican Republic on December 1st, there is no sign that Mr Maduro will allow the presidential election due by December 2018 to be free or fair.

Rather, the talk in Caracas is that he will bring the vote forward, perhaps to March. Having squared Mr Cabello, Mr Maduro would run again. And he would spend a few billion that might have gone towards debt payments to boost imports temporarily. Stringing along bondholders while intending to default may be a winning political strategy in the short term. And then? "They are clearly expecting the oil price to save them," says Mr Monaldi. "But it may be too late."

Honduras

Twist after twist

TEGUCIGALPA

A crisis looms after a weird and disputed election

JUAN ORLANDO HERNÁNDEZ, Honduras's president, boasts that he has brought stability and security, but his run for re-election has caused turmoil. As *The Economist* went to press on November 30th it was unclear who had won the election held four days before. After Mr Hernández's rival, Salvador Nasralla, posted an early lead, vote-counting slowed to a crawl and the incumbent closed the gap. With 89% of the vote counted, Mr Hernández led by 0.8 percentage points.

If the electoral tribunal (TSE) proclaims him the winner, that will not settle the matter. Mr Nasralla told *The Economist* there will be protests. The tension evokes the mood after a coup in 2009 against then-president Manuel Zelaya, after he tried to scrap presidential term limits. He now backs Mr Nasralla. University classes have been cancelled, probably to keep Mr Nasralla's young supporters at home. On the night of November 29th police fired tear gas at rock-throwing protesters near a building where ballots were stored, and it was evacuated; the TSE suspended counting after it said its system had crashed.

Those who believe that Mr Hernández's National Party is trying to steal the election have grounds for suspicion. Before the vote, *The Economist* obtained a tape of what appears to be a training session for party members who would man polling stations. In it, the trainer instructs the workers how to carry out "Plan B", a set of apparently fraudulent "strategies" that includes filling in leftover ballots, spoiling ballots and damaging barcodes on tally sheets if they record a majority for opposition parties. The purpose of this technique, says the government employee leading the session, is to delay inclusion of tally sheets favouring the opposition in the preliminary count. As Mr Hernández pulled into the lead on November 29th, opposition supporters consulting the TSE's website claimed that nearly all tally sheets excluded from the count favoured Mr Nasralla.

Plan B could determine the outcome of the election, though it is not certain it will. After a test of the vote-counting system two weeks before the election the boss of the TSE declared that "the system has worked very well". But no good explanation exists for the delay in results, nor the sudden reversal of Mr Nasralla's lead.

Few expected Mr Nasralla, a telegenic sports broadcaster, to come as close to victory as he has. He was so short of cash that

he continued presenting his weekly sports show during the campaign to stay visible. Yet he attracted voters angry about Mr Hernández's bid for re-election, which was waved through by a pliant supreme court in 2015. Mr Nasralla's anti-corruption message also resonated with voters.

He has long insisted that the vote would be rigged. "What we have in Honduras is a dictatorship," he said before the election. He added to the confusion on November 29th by agreeing with Mr Hernández that both would accept the results of the TSE's count, then reneging hours later. If the TSE does declare Mr Hernández the winner, Mr Nasralla will have three weeks to appeal to a court that he says "belongs" to the president. More twists await. ■

Argentina

At sea

BUENOS AIRES

A tragedy prompts new thinking on the armed forces

ARGENTINES have given up hope of finding alive the 44 crew aboard the ARA *San Juan*, the most modern of the navy's three submarines, which disappeared on November 15th. On November 23rd the navy said an explosion had been detected in the area where the submarine is thought to have been.

The apparent tragedy has started a debate about the role of Argentina's 105,000-strong armed forces and the money spent on them. Since the end of the military dictatorship in 1983, a year after Argentina's failed attempt to wrest the Falkland Islands from Britain by force, successive governments have reduced military spending. It has dropped from 3.5% of GDP in 1978 to less than 1% last year. Argentina spends a lower share of GDP than any of its neighbours on its armed forces (see chart).

Little of the money goes towards arms and equipment. The defence ministry spends about 70% of its budget on salaries and pensions (about a third of the United States' defence spending is on personnel). Argentina compounds stinginess with inefficiency: the army, navy and air force run separate bases in Antarctica.

Austerity has often caused embarrassment. In 2013 the destroyer *Santísima Trinidad* keeled over in harbour; the navy took three years to refloat her. In 2014 the submarine fleet spent just 19 hours under water. In 2015 Mirage fighter jets could not fly on cloudy days because of problems with their instruments. Next year, when Argentina will host the G20 summit, the government may rent fighter jets from Brazil.

Argentines speculate that corner-cut-

ting or corruption contributed to the loss of the *San Juan*. The navy insists she was in "perfect condition" when she set out, but there is evidence to the contrary. In 2011, after an overhaul, Cristina Fernández de Kirchner, who was then president, declared the submarine fit for "another 30 years' service". But an investigation by the defence ministry, reported on November 26th this year by *La Nación*, a newspaper, suggests that the bidding process for the contract to replace batteries contained "irregularities" to favour certain suppliers.

Argentines now think that the armed forces need reform, but they do not agree on what form it should take. First, the country needs to decide what its foreign-policy goals are, argues Santiago Rivas of IHS Jane's, a defence consultancy.

Argentina's cold-war-era weaponry is designed to counter conventional threats that no longer exist. Despite sabre-rattling, Ms Fernández pursued its claim to the Falkland Islands through diplomacy. Argentina is on good terms with its neighbours. In 1985 Raúl Alfonsín, then Argentina's president, concluded a "treaty of peace and friendship" with Chile, ending a long-running border dispute. The risk of conflict with Brazil was reduced by the creation of Mercosur, a regional trade bloc, in 1991.

Most defence experts agree that Argentina, the world's eighth-largest country by area, needs fighter jets, ships and submarines to deter potential enemies. Some say the armed forces should also deal with drug-trafficking, terrorism and illegal fishing. That would require a change in the law. In 2006 Néstor Kirchner, Ms Fernández's husband and predecessor, decreed that the armed forces could only confront "external aggressions". The aim was to prevent another coup. The current president, Mauricio Macri, argues the rule is too restrictive.

Expanding the armed forces' role might require spending more than the government can afford. It is trying to cut the budget deficit, which was 4.6% of GDP last year before debt-service payments. The search for the *San Juan* goes on. The hunt for a military strategy and armed forces to match it will take longer. ■

Short rations

Military spending, % of GDP

2016



Source: SIPRI

**American foreign policy**

Donald Trump's Muddled East

CAIRO

Neglect and confusion aggravate the problems of the Arab world

WHEN it is finished, America's imposing new embassy in Lebanon will be its second-biggest in the world. Yet it was France, not America, that stepped in to resolve Lebanon's latest political crisis. Speaking from the Saudi capital, Riyadh, on November 4th, Saad Hariri, the Lebanese prime minister, abruptly announced his resignation. What followed was a bizarre two-week saga in which he seemed to be under house arrest in the kingdom. Though America's State Department criticised the move, it fell to France to negotiate Mr Hariri's return to Beirut. He has since suspended his resignation.

Nearly a year into his presidency, Donald Trump's Middle East policy could best be characterised as one of neglect and confusion. His term coincides with a period of radical change in Saudi Arabia. King Salman and his son, Muhammad, the all-powerful crown prince, have abandoned the Al Sauds' plodding caution in favour of a more aggressive foreign policy. Their actions have unsettled friends and neighbours. Even Israeli diplomats, no fans of Mr Hariri, use words like "reckless" to describe the Saudis' pressure tactics in Lebanon, which risked upsetting its delicate sectarian balance.

Yet the Saudis have found a receptive audience in the White House, particularly in Jared Kushner, the president's son-in-law. Team Trump thinks that it has helped to kindle the liberalising economic, social and religious reforms of Prince Muham-

mad. Mr Trump has not evinced any concern about the Saudi-led war in Yemen that has, with American support, laid waste to the region's poorest country (see Briefing). He has enthusiastically praised a Saudi-led blockade of Qatar, and a recent wave of anti-corruption arrests in the kingdom, even though American diplomats have deep doubts about both policies.

Many Syrians cheered in April when America bombed a Syrian air base in response to a chemical attack in Idlib province. Since then Mr Trump seems to have lost interest. Russia and Iran have filled the vacuum, helping Syria's president, Bashar al-Assad, to reconquer lost territories. Vladimir Putin, Russia's president, gave Mr Assad a warm welcome in Sochi last month, and then hosted the presidents of Iran and Turkey, both of whom support Mr Assad's continued rule.

As *The Economist* went to press, Syrians were gathered in Geneva for another round of UN-backed peace talks. The opposition delegation is now stacked with figures willing to leave Mr Assad in power, a shift engineered by the Saudis. Under Saudi pressure Riyad Hijab, a former Syrian prime minister and a resolute critic of the regime, has resigned as head of an opposition umbrella group. The Saudis may be hoping, implausibly, to split Russia from Iran. America, which has long demanded Mr Assad's departure, said nothing.

Other allies feel similarly confused. Mr Trump is cutting military aid to the Syrian

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Democratic Forces, a Kurdish-led militia that paid a heavy price fighting the jihadists of Islamic State. Asked whether America would name a special envoy to mediate a dispute between Iraq's Kurds and the central government in Baghdad, the State Department demurred. "They can probably work it out on their own," a spokeswoman said. Even Binyamin Netanyahu, the Israeli prime minister, has been disappointed. He is unhappy with the latest "de-escalation" agreement in southern Syria, negotiated by America and Russia, which allows Iranian-backed militias within 5km of his northern border. Despite warm contacts with the Trump administration, Jordan, too, feels left in the lurch by American plans to halt financial aid to Arab rebels in southern Syria next month.

Abdel-Fattah al-Sisi, the Egyptian president, met Mr Trump during the campaign, and was the first foreign leader to congratulate him on his victory. But he was stunned in August when America slashed \$100m in aid to Egypt, and withheld another \$195m until it saw "progress on democracy". The move also astonished American diplomats in Cairo. "I had to explain this to my Egyptian counterparts the next morning, and I had no guidance from Washington on why we did it," says one.

Spread the blame around

Mr Trump does not deserve all the blame for meek and muddled American policy. Barack Obama, though he called for Mr Assad's removal, did little to support the Syrian opposition. The war in Yemen started on his watch, too. And, to be fair, Mr Trump is engaged in one area: the Israeli-Palestinian conflict. After much shuttle diplomacy by Jason Greenblatt, his special envoy, the president is preparing to unveil a peace plan in early 2018.

This is a rite of passage for American presidents. The last three tried, and failed. ►

► There is no reason to think Mr Trump will succeed, either. Israel is still led by a far-right coalition loth to make concessions, and the divided Palestinians by a government that lost its legitimacy years ago. But the Saudis have egged him on, knowing that the president is eager to strike what he calls “the ultimate deal”. By supporting Mr Trump’s efforts in Jerusalem, they hope to win a free hand in Yemen and elsewhere.

Mr Trump never misses a chance to criticise his predecessor. Yet he is repeating some of his mistakes. Mr Obama was accused of pursuing a nuclear agreement with Iran at all costs, and ignoring Iran’s meddling in Syria and Iraq. Now Mr Trump seems obsessed with renegeing on the deal, which would weaken the curbs on Iran’s ability to make a nuclear bomb, and is doing little (apart from a few more sanctions) to contain Iranian influence.

He is enabling autocrats in Egypt, and losing the confidence of close allies, such as Israel and Jordan. Meanwhile the Saudis are free to pursue destabilising policies, and the future of Syria is largely in Russian and Iranian hands. “This is not a time for the US to be absent,” says another Western diplomat. “We need some supervision.” ■

Jordan's water crisis

Diplomatic drought

AMMAN

A feud with Israel halts plans to quench a thirsty kingdom

THE Dead Sea is dying. Half a century ago its hyper-salty, super-pungent waters stretched 80km from north to south. That has shrunk to just 48km at its longest point. The water level is falling by more than a metre per year. All but a trickle from its source, the Jordan River, is now used up before it reaches the sea. “It will never disappear, because it has underground supplies, but it will be like a small pond in a very big hole,” says Munqeth Mehyar of EcoPeace, an NGO.

Until this summer Israel and Jordan, which share the sea, were trying to slow the decline. The “Red-Dead project”, as it is called, would desalinate seawater at the Jordanian port of Aqaba and pump 200m cubic metres of leftover brine into the Dead Sea each year. That would not be enough to stabilise the sea, which needs at least 800m cubic metres to stay at current levels. Still, it would help—and the project has a much more important benefit.

The World Bank defines water scarcity as less than 1,000 cubic metres per person annually. Jordan can provide less than 15% of that. The Aqaba plant would send fresh water to southern towns in both Jordan

and Israel. In return for its share, Israel agreed to pump an equal amount to parched northern Jordan, where most of the population lives.

But the project is now on hold. On July 23rd a Jordanian teenager delivering furniture to the Israeli embassy stabbed a security guard. The guard opened fire, killing both his assailant and an innocent bystander. Jordan allowed the guard (and the rest of the embassy staff) to leave the country. Hours later Binyamin Netanyahu, the Israeli prime minister, invited the guard to his office and embraced him. Jordan was furious and barred Israeli diplomats from returning until the guard is prosecuted. High-level talks on water projects—and other schemes, including an ambitious solar-energy farm—are now suspended.

Instead Jordan might, as one official puts it, “go it alone” on the Red-Dead project. This would be costly. The pipeline to the Dead Sea will need constant repairs because of the corrosive brine it carries. Mr Mehyar reckons it could cost up to \$1bn to build and maintain for a decade. And a unilateral scheme would do nothing to ease water shortages around Amman, because it would be prohibitively expensive to ship fresh water 300km from Aqaba.

There are better ways for Jordan to help itself. Farms account for more than half of its annual consumption, but just 4% of GDP; the kingdom imports most of its food. Water is heavily subsidised—it is cheaper than in Israel or Saudi Arabia—encouraging farmers to plant thirsty crops like bananas. Though the government has taken a few modest steps to reduce demand, including a small price rise, it fears broader reforms would cause public anger.

Jordan is already one of the world’s most arid countries. Climate change will make matters worse. By the end of the century, say scientists from Stanford University, Jordan could be 4°C hotter, with about a third less rain. It needs to rationalise water consumption. And Israel, which wants a stable neighbour to its east, has an interest in getting water projects back on track. “The Israelis need to think more regionally,” says Mr Mehyar. “The leadership is not taking things as seriously as it should.” ■



Angolan politics

Taking the wheel

LUANDA

The new president drives out his predecessor's powerful clan

WHEN João Lourenço said on the eve of Angola’s election in August that, as president, he would have “all the power”, few took him seriously. The former defence minister had been hand-picked by José Eduardo dos Santos, Angola’s president for 38 years, seemingly as part of a deal to protect his interests. The opposition dubbed him “the chauffeur”, since Mr dos Santos would tell him where to go.

Two months into his presidency, though, the chauffeur seems not to be taking directions. On November 15th he suddenly sacked Mr dos Santos’s flamboyant and ultra-wealthy elder daughter, Isabel dos Santos, from her job at the head of Sonangol, the national oil company. That was followed by the cancellation of a lucrative contract between the state television company and a media company owned by two of Mr dos Santos’s younger children.

Then, on November 20th, in defiance of a law introduced by his predecessor, Mr Lourenço fired the police chief and the head of the intelligence agency. In Luanda, the fabulously expensive coastal capital, rumours fly that another of the ex-president’s children, José Filomeno dos Santos, the head of the \$5bn sovereign-wealth fund, will be next for the chop. One of Ms dos Santos’s other interests, Unitel, a mobile-phone company with a near-monopoly, could face more competition.

Some even wonder if José Eduardo himself, who is still chairman of the People’s Movement for the Liberation of Angola (known as the MPLA from its Portuguese initials), the country’s ruling party, might be under threat. The new president has not been discreet about his ambitions, says Paula Roque, a researcher at Oxford University. By sacking Ms dos Santos and taking over the security apparatus, Mr Lourenço has seized control of two of the three main sources of power in Angola.

The third is the MPLA. And behind the scenes, party veterans are trying to persuade the former president, who has not been seen in public since the end of October, to step down as party leader early next year. “It’s become clear just how sick and tired the country was with how things were,” says Paulo Faria, a professor of politics at Agostinho Neto University in Luanda. “Successful resistance from within the party seems unlikely.”

Mr Lourenço’s assault on the former president’s gilded empire is winning over at least some Angolans. On social media ➤

► many have shared an image from "The Terminator", a film, with Mr Lourenço's face replacing that of the he-man star, Arnold Schwarzenegger. Two guns held aloft, the caption reads: "The Relentless Remover". The presidential motorcade is said to stop now at red lights. Mr Lourenço was seen queuing for a meal at KFC, a fast-food chain. In a country where the rich and powerful have been above the law for years, such small gestures have carried weight. Even the previous government's loudest critics have come out in support. Luaty Beirao, an Angolan rapper and activist who was jailed by the old administration, said he was stunned by Mr Lourenço's actions, calling it a "revolution".

Will Mr Lourenço's revolution really transform Angola? The country is in a terrible state. After the end of the civil war in 2002, oil wealth started to flow, bringing new roads and fancy skyscrapers to Luanda. Thanks to epic corruption, little has filtered down. Most Angolans live in penury. Life expectancy is barely 60 years. So dire are health facilities that last year Angola suffered the world's worst outbreak of yellow fever in decades.

These days there is less money to go around. Economic growth has slowed since 2014, when the price of oil, which makes up over 90% of exports (the rest is almost all diamonds), collapsed. Despite tight monetary policy the currency, the kwanza, trades on the black market at just 40% of the official rate. Reliable data are almost non-existent, so it is unclear exactly how much the government owes international creditors. But the amount has certainly soared. Much of it is owed to China, on terms that are far from generous.

Rafael Marques de Morais, a journalist and anti-corruption activist, fears that not much will change. He thinks Mr Lourenço had little choice but to go after the president's children. "Isabel was strangling Sonangol with her incompetence," he says. But, he adds, more junior members of the dos Santos family are still "everywhere in government, in economic and social affairs". And there is little hint that Mr Lourenço's government intends to go after corruption or try to build solid institutions to replace the dos Santos's system of patronage. "He's not even trying to find figures who have a better reputation," says Mr Marques de Morais of the new president's appointees.

That said, by weakening the dos Santos clan, and so quickly after taking office, Mr Lourenço has made a strong start. For as long as Mr dos Santos held the reins, "you could not conceive of genuine reform," says Ricardo Soares de Oliveira, also of Oxford University. The elderly ex-president warped his country's post-independence history. With him removed from the picture, perhaps things can start to change for the better. ■



Zimbabwe's new politics

The time of the crocodile

HARARE

Emmerson Mnangagwa must act fast to prove he is better than Robert Mugabe

HAVING promised at his inauguration on November 24th to "hit the ground running", Emmerson Mnangagwa has no time to lose. Somehow, he must persuade Zimbabweans that he can improve their lives after 37 years of despotism and decline under Robert Mugabe. Already people have been chuffed by one striking change: the police are almost nowhere to be seen on the streets of Harare, the capital, whereas previously they were ubiquitous, shaking down drivers for minor or fictitious traffic offences. That is no small matter. It used to cost \$10-20 to make a cop go away, when a blue-collar urban wage is perhaps \$250 a month.

When the chief of police, Augustine Chihuri, swore allegiance to the new president at the inauguration ceremony, a roar of boos erupted across the stadium. Mr Mnangagwa would earn easy plaudits if he sacked a man who failed utterly to curb corruption within the police. Mr Chihuri is also reviled for his ties to Mr Mugabe's unpopular wife, Grace, who had Mr Mnangagwa chased out of the vice-presidency and into exile barely three weeks ago.

The new president's broader intentions will be shown by the cabinet he is expected to appoint imminently. He has already reinstated Patrick Chinamasa, whom Mr Mugabe sacked in October, as acting finance minister. By the abysmal standards of the ruling party, Zanu-PF, Mr Chinamasa is quite competent. His downfall had been precipitated by Mr Mugabe's repeated refusal to let him meet the demands of the

IMF, such as thinning the public sector and abolishing corrupt parastatal outfits, as the price of unlocking the loans urgently needed to rescue an economy that is once again in rapid decline.

A clutch of members of the previous cabinet are in hiding, or under arrest, or have fled abroad. Most notably Ignatius Chombo, Mr Mugabe's last finance minister, appeared in court in leg-irons the day after the inauguration, charged with corruption, which he denies. By contrast, Chris Mutsvangwa, the influential head of the liberation war veterans' association, who turned against the Mugabes, may get a top job. A former ambassador to China, he hails Mr Mnangagwa as Zimbabwe's Deng Xiaoping: an economic reformer who will keep the lid on political dissent.

Mr Mnangagwa has intimated that he will junk some of Mr Mugabe's more ruinous policies in an effort to woo back foreign investment. First on his list must be a repeal of the "indigenisation" law that requires most firms to be majority-owned by black Zimbabweans. (In practice, this has often meant Zanu-PF bigwigs.) Several of the ministers keenest on this law were in Mrs Mugabe's camp. As an early gesture to embattled business people, Mr Mnangagwa offered a three-month amnesty to those who have illegally siphoned dollars out of the country, if they bring them back.

One of the new president's biggest tasks will be to deal with the vexed question of land. Nearly all of Zimbabwe's 4,000-plus commercial farmers (who were mostly

► white) had their lands confiscated by Mr Mugabe since 2000, prompting the collapse of the country's entire agriculture-driven economy. Farmers' representatives expect Mr Mnangagwa to undo some of the damage. "There's a real opportunity to change this country's direction," says Charles Taffs, a former head of the Commercial Farmers' Union, who sits on a compensation steering committee that has previously had discussions with people close to Mr Mnangagwa. "He's a strong, intelligent pragmatist who knows what needs to be done to put this country on the road to recovery."

Compensation for land previously confiscated, says Mr Taffs, a coffee farmer who has had land nabbed, "is the elephant in the room". The figures have already been nailed down, he says. The Valuation Consortium, formed of eight local companies, has made detailed assessments in 153 zones across the country, valuing the grabbed land at \$3bn-3.5bn and improvements (including equipment and so forth) at \$5bn-5.5bn.

Beyond compensation, the key is to re-establish security of land tenure for commercial farmers of any colour—and to reassure business people that property rights in general will be respected under a post-Mugabe regime. Otherwise the banks will not lend. But this will be politically tricky. Even the supposed pragmatists in Zanu-PF have argued that land should be owned by the state and leased out. Yet if land is to re-acquire real value and be tradable on the open market, farmers must be granted freehold. "Land needs to be bankable," says John Robertson, a veteran economist in Harare. "You should be able to go to an estate agent, not to a minister, to sell to anyone." Leasehold, he says, will always be vulnerable to the interference of corrupt ministers. In the past, Mr Mnangagwa has promoted a so-called "command agriculture model". The very name suggests state control.

Only 50 or so white farmers are reckoned to have remained unscathed as active owners. Another 200-odd may still operate on diminished acreages, often in co-operation with black farmers who have been dished out chunks of their land. But in the past year or so, several hundred more whites have returned to the land, says Mr Taffs, often as managers or leaseholders, sometimes overseeing the acquisitions of well-connected blacks.

If compensation is settled and property rights respected anew, Zimbabwe's agriculture could recover fast. For sure, the destruction will take years to reverse. For instance, the national dairy herd is down to a third of its previous capacity. And no one expects very many of the white farmers to come back. Still, enough could do so in various guises to make a vital difference.

If there is a chance of Mr Mnangagwa

reversing some of Mr Mugabe's most disastrous economic policies, few expect him to soften Zimbabwe's brutal politics. A few non-party technocrats and even members of the opposition may make it into his cabinet. "He may slightly widen the political space," says Sam Monroe of Magamba Network, a civic-rights organisation. He notes that one of his colleagues, an American woman, who was remanded in jail for a week just before Mr Mnangagwa's flight abroad, still faces a criminal charge of insulting the president—ie, Mr Mugabe.

After all, the new man was the old one's most forceful security minister and election-rigger. At his inauguration he promised a fair election by the middle of 2018, as the constitution requires. International lenders and Western governments will press him to meet a string of political con-

ditions as the price of crucial economic aid. Among other things, this would include a revamped election commission; the removal of the coup-making army from politics; proper international election observers; voting rights for Zimbabwe's vast diaspora; proper protection for the media; and the repeal of a host of repressive laws.

The test of the ballot

But would Mr Mnangagwa ever permit an election he might lose? Unless he undergoes a Damascene conversion (he is said to be a born-again Christian), few would expect it. But the opposition is weak and fractious. Most Zimbabweans, however sceptical, want to give the Crocodile, as Mr Mnangagwa is known, a chance. If he really began to rescue the economy, he might even win an election without rigging it. ■

Six letters: profit

Why Nigeria wins at Scrabble

ABUJA

The best players earn government salaries

IN THE hot, golden light of an Abuja afternoon two men spin a rotating Scrabble board, oblivious to the flies buzzing around them. The opening moves in the word-building game are relatively low-scoring: "writer" for 26 points, followed by "pool", "ow", "or" and "li". But the scores soon stack up, including two 50-point bonuses for getting rid of all seven letters for "mediant" (the third note of a diatonic musical scale) and "deracine" (from *déraciné*, a French noun and adjective for someone who has been uprooted). In less than 20 minutes, the time allowed for a professional game, Eta Karo beats Ben Quickpen by 461 points to 410.

Both men are members of the triumphant Nigerian team that last month won the World English-language Scrabble Players Association championship for the second time running. Four of the team's eight players made the top ten, out

of 118 competitors.

Scrabble found fans in Nigeria in the 1980s. It was made an official sport in the early 1990s. Prince Anthony Ikolo, the coach of the Nigerian national team, reckons there are now around 4,000 players in more than 100 clubs around the country (compared with about 2,000-2,500 members in 152 clubs in America and Canada combined). He wants to ensure that "all nooks and crannies in this country have a Scrabble board." For now, the game's best players hail from the better-educated south, particularly Lagos and the oil-producing states.

It helps that some states hire Scrabble players as civil servants. Mr Quickpen gets 70,000 naira (\$195) a month from Bayelsa state for coaching younger players. He still finds time to play for four hours every day, six days a week. Godswill Akpabio, a former governor and now senator for the southern state of Akwa-Ibom, puts on a yearly tournament. This year the first prize was worth \$10,000. Not for nothing is he known as the "Pillar of Scrabble in Africa".

Good Nigerian players tend to have an encyclopedic knowledge of short words, which they often deploy instead of longer ones in order to block their opponents and conserve useful letters such as S, E and R. Money seems to be their main motivation. Top players can make more than \$4,000 a year, a useful income boost in a country where more than half the population makes less than \$1.90 a day. "As a people we believe in profits," says Mr Ikolo. "If there is no prize money it won't be competitive."





Public finances in France

Transformers?

PARIS

The annual budget is less bold than it sounds

FOR those seeking evidence that Emmanuel Macron is set on a radical overhaul of the economy, France's new budget, now being debated in the Senate, offers mixed evidence. For all his bold talk of "transforming" France, some measures—notably on public spending—so far look tentative.

Undoubtedly there has been much to cheer. Mr Macron had already signed off on reforms to boost flexibility in the labour market earlier this autumn. Assessing the full impact of these is tricky, because implementation takes time and an upturn in the economic cycle means unemployment should drift down from 9.7% in any case. A big unknown is whether unions will keep

their de facto power to set some national terms on pay and conditions, limiting firms' flexibility no matter what the laws may say. Economists will be scratching their heads over this for years.

The budget is easier to assess. Two measures stand out. The president talks of a France that encourages wealth creation rather than envy of the rich. Scrapping the wealth tax, introduced in 1982 and in force (mostly) since then, is bold. It is partly replaced by a levy on pricey properties. Revenues will drop from a modest €5bn in 2016 to just €1.8bn next year. The benefit should be that fewer wealth-creators will emigrate (by one estimate, France has seen a net loss of 60,000 millionaires since 2000). More might invest in France, perhaps in tech startups. But Mr Macron has been dubbed "president of the rich".

The second notable measure is to keep the projected budget deficit below 3% of GDP, as required under EU law. It is likely to be 2.9% in 2018. This is a matter of totemic importance to Mr Macron. He wants to be the first French leader in a decade to get it below 3%. "The pressure on the administration to deliver such an outcome is very, very strong," notes Bruno Cavalier, of Oddo Securities. Mr Macron seeks fiscal credibility, partly to convince future German governments to pay more attention to his plans for euro-zone reform.

For a measure of his resolve on this

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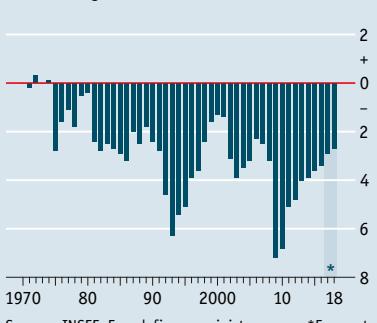
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score, consider how officials responded to a €10bn hole that appeared in the budget after the constitutional court ruled that a surcharge on dividends that companies previously had to pay was illegal. Rather than let the 3% mark be breached, as earlier administrations might have, officials instead dreamed up a one-off levy on France's 320 biggest firms. That shoves up corporation tax, temporarily, despite Mr Macron's promise to bring the rate down from 33.3% to 25% in five years. Better a capricious tax, it seems, than missing the deficit target. Yet Mr Macron took a knock last week when the European Commission included France on a list of (only six) countries that it worries may breach the 3% rule next year. It is also concerned about the high level of public debt in France.

Other steps are modest and welcome. Some pensioners will pay higher social-security charges, even as firms pay lower imposts for employing people. A flat tax of 30% on investment earnings, a markedly lighter burden than before, is designed to cheer entrepreneurs. Gradually exempting 80% of households from a property tax ➤

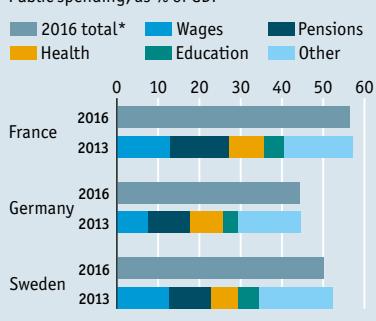
The fightback

France, budget balance, as % of GDP



Bonjour, big spender

Public spending, as % of GDP



► (separate from the one levied on the richest) is popular, but means €3bn of lost revenues in 2018, and more later.

Those who dared hope for a one-off radical change in the first year of Mr Macron's presidency, followed by years of stability, are disappointed. "I was expecting more and quicker. I'm not sure they are building a situation of freedom that will relaunch growth," says Marc Ivaldi of the Toulouse School of Economics. He sees no overriding "strong idea or strategy" to guide policy.

Mr Cavalier also laments the lack of "big bang" changes. He is most disappointed by the lack of a strong signal that "completely crazy" public spending will soon be cut. The state spends some 56.4% of GDP, far above the European average of 46.3%. Mr Macron has talked this year of reducing spending to Nordic levels (Sweden was at about 50% in 2016). Mr Cavalier calls that goal "very ambitious", given the lack of a big, early push. The IMF thinks this is urgent, too. In September it said swift and comprehensive spending reforms would be needed if Mr Macron is to keep his promise to save €60bn over his five-year term.

If growth exceeds official projections of 1.7% next year, and central government spending is kept steady as planned at roughly €385bn, then the ratio of spending to GDP could improve. But there is little sign of the structural change that Mr Macron previously said he would deliver, such as when he spoke of cutting 120,000 public-sector jobs over five years. No plan for trimming such posts has been announced (though failing to replace those who retire could help). Meanwhile spending by local and regional governments, which soared in recent years, is to fall modestly next year.

Another big challenge is pensions. A comparison with Swedish public spending is instructive, given talk of a Nordic approach. The OECD compares the two and finds that more generous pension provision in France explains most of the gap between the two countries: 10% of Swedish GDP goes on paying them, whereas France devotes a much heftier 14.3% of GDP to its ones. That suggests a priority should be, for example, to raise the retirement age in France, something Mr Macron has shied away from doing.

Is there other evidence that France will shrink its overbearing state? The finance minister, Bruno Le Maire, talked in the summer of trying to sell roughly one-tenth of the country's vast public holdings. An audit of these early this year described public investments worth almost €100bn in nearly 1,800 firms. Firms part-owned by the state employ some 800,000 people—far more than in any other big European country. However, the pace of privatisation so far only matches the rate managed (to little fanfare) late in the term of François Hollande, Mr Macron's predecessor. No

one talks of more radical change, such as swiftly injecting competition into the state-run, hugely subsidised railways, where debt amounts to more than €40bn.

Mr Macron is in a strong position for now, without serious opposition in parliament or on the street. He might use this time to push on with more change, for example with a second round of promised labour and unemployment reforms, potentially weakening the entrenched power of the unions, or cutting pension costs. The chance to bring about structural shifts is fleeting—it would pay to grab it early. ■



Turkey

Misguided missiles

ISTANBUL

Turkey's \$2bn arms deal with Russia faces hurdles, and possible sanctions

TO NATO officials, it must have seemed like a bad joke. Earlier this autumn, Turkey's state-run news agency published an infographic on the S-400 missile-defence system, which President Recep Tayyip Erdogan's government is buying from Russia. After praising the system's prowess, including its ability to intercept enemy fighter jets and incoming missiles at a range of up to 400km, the graphic cited examples of planes the S-400 could knock down. Every single one was an American aircraft.

Turkey's allies have learned to ignore such needling, examples of which often pop up in the pro-government press. But they are following the missile deal itself with increasing unease. NATO officials say Mr Erdogan's government is free to shop for military hardware wherever it pleases, but take a dim view of its decision to do so

in Russia. Analysts point out that the S-400 would not be interoperable with NATO's air-defence system. The chairman of NATO's military committee, Petr Pavel, recently warned of unspecified "consequences" if Turkey were to go ahead with the purchase. The presence of Russian missiles on Turkish soil, he said on October 25th, would create "challenges for allied [aircraft] potentially deployed onto the territory of that country". Nonetheless, Turkey's defence minister announced on November 11th that the sale had been agreed.

It risks running foul of American sanctions against Russia. In October the State Department said it reserved the right to penalise governments that buy military equipment from Moscow. (The Russian arms companies blacklisted on its website now include the makers of the S-400.) Although countries can apply for exemptions, Turkey's sorry human-rights record, as well as unprecedented tensions with the US, do not help its cause. Outraged by the arrests of two local consular staffers by Mr Erdogan's police, America suspended visa services across Turkey in October. The ban has since been relaxed. But the bad blood remains.

Relations with NATO are also increasingly fraught. In November Turkey withdrew its troops from a NATO exercise in Norway after an "enemy chart" prepared for the occasion by a contractor was found to include Mr Erdogan's name and a picture of Turkey's founding father, Kemal Ataturk. Turkey's government accepted an apology from NATO's highest official, but insisted on a thorough investigation. The ultranationalist and Islamist media seized on the occasion and called on Turkey to withdraw from the alliance.

American officials have long suggested that the best way to defend Turkish airspace would be to buy the US-made Patriot system, the kind already sold to Germany, the Netherlands, Greece and Saudi Arabia, among others. Their counterparts in Turkey agree that the Patriot system is the better option, but balk at the price tag and fear that the Americans will transfer less technology to Turkey as part of a missile deal than the Russians might. Also, Mr Erdogan's reputation in Washington is so bad that any deal could be torpedoed by Congress. "If they don't give us visas, they probably won't sell us Patriots," quips one Turkish official.

For now, Mr Erdogan's ministers say, the S-400 is the best system Turkey can afford. Under the deal, Turkey says it will receive four missile batteries, for around \$2bn. But because the S-400 cannot be plugged into NATO's radar network, and Turkey would have only four batteries, the system would be able to defend only a fraction of Turkey's airspace. (Turkish officials acknowledge that the S-400 is a stop-gap measure, and say that their country remains in the ►

► market for a NATO-compatible system.) Some analysts suspect that Mr Erdogan's enthusiasm for the deal has less to do with national defence and more with his fear of a repeat of last summer's failed coup, when F-16 fighter jets manned by rogue pilots struck his palace compound in Ankara. "If Turkey buys the s-400, putting one of the batteries in Ankara makes sense," says Aaron Stein of the Atlantic Council, a think-tank. "Its primary mission could be [to protect] the palace."

There is another snag looming. Mr Erdogan's government is still insisting that Russia must allow it to produce some of the s-400 batteries at home. Yet Mr Putin is not in the habit of handing over sensitive defence technology to anyone. He no doubt hopes that a missile deal would deepen Turkey's rift with the West, but he must also be wary of sharing Russian secrets with a NATO member. So despite all the posturing, the deal could yet unravel. ■

Ireland property

In short supply

DUBLIN

High prices and homelessness

DUBLIN has long been a popular destination for foreign tourists, who enjoy its warm pubs, silky beer, Georgian street-scapes and leisurely approach to life. But lately it seems that longer-term visitors have been falling out of love with Ireland's lively capital.

Last month a survey of 13,000 expatriates put Dublin fifth from bottom of a list of 51 global cities, ranked by quality of life. Their main gripe (as with Paris, which finished two places lower, sandwiched between Riyadh and Jeddah) was not a sudden collapse in the city's charm, safety or amenity but its high cost of living, and in particular the difficulty of finding somewhere to stay.

According to a recent report by WorldFirst, an international-payments firm, Luxembourg is now the only European country where renting a home is pricier than it is in Ireland. Daft.ie, an Irish property website, reported last month that the average monthly rent in central Dublin is now €1,819 (\$2,155)—more than 60% of Ireland's average pre-tax private-sector income. Citywide, rents rose by 12.3% in the year to September, and are now 23% higher than at the peak of the "Celtic Tiger" property bubble in 2008, which spectacularly burst. Since then Ireland's headline economic figures have steadily recovered, bringing rents and house prices with them.

With the cost of housing shooting up,

even reasonably well-paid working people are being priced out of Ireland's urban markets. Homelessness is soaring; in Dublin the number of registered homeless people has increased at least fourfold in the past three years, and two rough-sleepers have died in the past week. Many more are couch-surfing, commuting huge distances or moving back in with their parents.

This new housing crisis is embarrassing at a time when Ireland is touting for jobs and businesses fleeing Brexit Britain. Threshold, a housing-support charity, says it is being contacted by desperate foreign firms seeking help with finding homes for would-be immigrant employees.

Whereas the 2008 bubble was caused by a credit-fuelled glut of new housing, the current crisis stems from a famine. Starting in the 1980s, successive centre-right governments encouraged local authorities to sell off social housing, which has not been replaced. The private construction sector has so far failed to increase supply in response to soaring demand. Experts estimate that around 50,000 new units are needed each year to ease the shortage. But a recent report from Goodbody, a stockbroker, showed that only 5,377 new privately built units were completed in 2016.

The reasons behind this market failure are various. One of them is more cautious banks. Developers also complain that Irish construction costs are mysteriously high—"40% higher than Amsterdam", estimates Ronan Lyons, an economist at Trinity College Dublin. Red tape, suspected cartels among materials suppliers and the high fees extracted by closed-shop Irish professionals could be partly to blame. Unwise tax breaks have encouraged land hoarding, and private developers have lit-



Dublin down and out

tle incentive to drive down their margins by increasing supply.

Stung by mounting criticism of its lack of an emergency plan to build more houses, Ireland's centre-right government seems tempted to try to bluster it out. Leo Varadkar, the prime minister, recently stated that Ireland's homeless figures were quite good by international standards, citing numbers which fact-checkers quickly called into question as incomplete and out of date.

But playing down the scale of the problem is a risky strategy for Mr Varadkar. His minority government depends on a deal with the opposition, and he only narrowly averted its collapse over a police scandal by sacrificing his deputy this week. Polls suggest that the housing crisis, together with a tottering health service, will be at the heart of the next election campaign. And an election now looks as though it will come sooner rather than later. ■

Berlin

Poor and sexy

BERLIN

Why is Germany's capital so dysfunctional?

AT A crossroads in the middle of Tegeler Forst, a wooded part of north-west Berlin, visitors can admire the city's longest-serving provisional traffic light. Erected in 2013 after a burning car had destroyed the pillar on which the lights were mounted, it was meant to be replaced by a more permanent structure within a few weeks. When a city lawmaker asked the government why, four years later, the lights still had not been fixed, he received an interesting response: owing to changed regulations, calculating whether or not the new structure would fall down had become "very laborious and difficult". The government would not specify how much longer it would take.

The traffic-light saga illuminates a wider problem. Berlin, the capital of Europe's most successful economy, is surprisingly badly governed. The new airport, the city's biggest flagship project, missed its seventh opening date earlier this year and may not open until 2021, ten years after it was originally supposed to. The jobless rate is among the highest in the country. Schools are dismal. Courts and police are so over-worked that hundreds of millions of euros in fines and taxes have not been collected; and the city failed to keep tabs on Anis Amri, the jihadist who killed 11 people with a lorry last Christmas, despite warnings about him three weeks earlier.

Astonishingly for a capital city, Berlin ►



German inefficiency

▶ makes Germany poorer. Without it, Germany's GDP per person would be 0.2% higher. By comparison, if Britain lost London, its GDP per person would be 11.1% lower; France without Paris would be 14.8% poorer. "Berlin's economic weakness is unique among European capitals", says Matthias Diermeier of the Cologne Institute for Economic Research.

The city's dysfunction makes everyday life more irksome. In some boroughs the streets are constantly clogged by piles of rubbish, not to mention inexplicable roadworks that make little or no progress. Registering a new car can take weeks, depriving new owners of a means of transport and car showrooms of space for new stock. This summer desperate couples travelled out of town to get married because short-staffed town halls could only offer wedding dates months in the future. "It is hard to escape the impression that Berlin's government has a certain contempt for its citizens", says Lorenz Maroldt, editor of the local daily *Tagesspiegel*, who writes a newsletter chronicling the city's administrative hiccups.

Berlin's woes are partly a consequence of structural changes. Before the second world war the city was an industrial hub. When it was divided by the victorious allies, many firms moved their offices and factories to West Germany. As an anti-communist bulwark, West Berlin was heavily subsidised, but not an attractive place to set up a business. After unification, firms that had re-established themselves in Germany's southern industrial clusters had little reason to move back. Instead the city attracted bohemians, lured by low rents and large numbers of abandoned factories and warehouses that made ideal artists' studios or rave venues. These new, hip residents earned little and paid little tax. In 2003 Klaus Wowereit, a former mayor, de-

Italy

You can keep your money

ROME

Italy fails to take up EU largesse

AS ITALY'S budget for 2018 wends its way through parliament, the European Union and the Italian government have been trading barbs in what has become an annual ritual. The Commission's vice-president, Jyrki Katainen, recently in effect accused Prime Minister Paolo Gentiloni's coalition of lying about the true state of the economy; its finance minister, Pier Carlo Padoan, called that "intolerable".

True, Italy's new budget is mildly expansionary: it aims for a deficit of 1.6% of GDP whereas the government had estimated that, if nothing were changed, it would shrink to 1.0%. But Italian ministers stress that the revised figure is still well below the EU's ceiling of 3%. The Commission, though, worries that Italy is not doing enough to cut its huge public debt (133% of GDP at the end of last year).

Curiously, while protesting at Brussels' refusal to let them spend more of their taxpayers' money, the Italian authorities persistently fail to claim billions of euros from the Commission. Excluding the cash Brussels had paid up front, by November 15th, more than halfway through the period of the EU's current budget (2014-20), Italy had received barely 1.2% of what was due to it from the Commission's regional development funds. Apart from Austria and the Netherlands, rich members that get very little aid, Italy had the worst take-up rate of any country bar Croatia, which is new to the EU's mechanisms. Italy's rate was below the EU average of 5.3%, but even further below that of poorer southern European states including Greece (6.0%) and Portugal (10.6%). If Italian bureaucrats had been as efficient as the Portuguese in devising suitable projects, they could have pumped an extra €2.2bn (\$2.6bn) into the economy over the past four years.

scribed Berlin as "poor but sexy".

The city's economic fortunes are improving. A heavy dose of austerity in the early 2000s averted bankruptcy. Startups have moved into the artists' warehouses, making Berlin the second-biggest European tech hub after London. Its rough-and-colourful image has attracted tourists. The city's population is growing.

Yet the bureaucratic dysfunction continues. One culprit is the complex division of responsibilities between the city and its boroughs. This makes it easy for officials to pass the blame for problems back and

The bulk of that money would have gone to the south, where investment is most needed. According to Svimez, a government body, income per head in the Mezzogiorno, comprising the southern mainland, Sicily and Sardinia, is 11.3% lower than in 2007.

There are several reasons for the low figures; for a start, the commission's schemes tend to be highly back-loaded, with payments spread over a long period. But much of the blame for the low take-up of funds should also be laid at the door of inefficient southern Italian regional administrations. Also, most of the programmes require additional funds from a country's central government. Combining all the funding on offer from Brussels with the top-up money Rome has to provide, the Mezzogiorno is due around €50bn from the EU's current seven-year budget. A study published last month by Vision, an Italian think-tank, calculated that if the money were just handed over to the inhabitants of the south, their incomes would currently be growing by 1.7 percentage points more than those of their fellow Italians.



forth without doing anything about them. (By contrast, cities such as Hamburg or Munich have centralised their administrations to improve accountability.) That the austerity measures were implemented in a slapdash fashion probably did not help either. But the main reason, Mr Maroldt believes, is cultural, going back to Berlin's historic anti-capitalist and anti-technocratic streak: "We have a deeply held suspicion of anything that smacks of efficiency and competence." Abandoning that attitude may make life in Berlin easier. For some, no doubt, it will also make it less sexy. ■

Charlemagne | More than yuan Europe

Some Europeans fear a surge of Chinese investment. Others can't get enough of it



TO THIS day the trained eye can still spot the occasional boxy Chinese tractor lumbering around rural Albania, a reminder of the time when this Balkan backwater was China's biggest champion in Europe. In the 1960s Chinese aid and capital propped up Enver Hoxha's dire regime in return for its support at the UN, where Taiwan still held the Chinese seat. Now some fear that what comes around goes around. Chinese money is pouring into Europe's heart and its periphery. It sometimes seems to have a political edge.

Public investment in the European Union is at its lowest for 20 years. Little wonder some are looking east. The stock of Chinese investment in Europe is low compared with America's or Japan's, but it is shooting up. According to one study, in 2016 its new FDI in the EU was over 77% above that the year before, at €35bn (\$41bn). These days China's attention is on the innovation hubs of northern Europe as much as on infrastructure, but crisis-hit southern economies have also lapped up its lucre, especially those that have had to divest state assets under euro-zone bail-outs. Last year Cosco, a Chinese state-owned shipping firm, acquired a controlling stake in the main Greek port of Piraeus, providing Chinese maritime exporters with a European foothold. Portugal is rolling in Chinese loot.

But the latest front is further east. This week Li Keqiang, China's prime minister, swooped into Budapest for the annual meeting of the snappily titled Co-operation Between China and Central and Eastern European Countries (colloquially known as the 16+1 format), bringing promises worth €3bn. There is talk of investment in Estonian dairy, Slovakian freight and a high-speed rail link from Serbia to Hungary (which may violate EU tendering rules). Beata Szydło, Poland's prime minister, grumbled about Chinese red tape, but Viktor Orban, her Hungarian counterpart, was more effusive, celebrating China's economic heft and its agreeable habit of not talking about democracy or human rights.

For some western Europeans all this revives old concerns, and sparks new ones. The first is that in their rush for renminbi some European governments will become proxies for Chinese interests. The fear is hardly groundless. In June Greece vetoed a common EU position at the UN on human rights in China. Earlier, pressure from Hungary, Greece and others had watered down an

EU statement after an international court had condemned China's mischief-making in the South China Sea. Balkan countries like Serbia, their accession to the EU years away, may be tempted to see China as a geopolitical hedge against Europe, even though most have little to offer beyond their position on the "Balkan Silk Road" between Piraeus and Europe's rich heartlands.

This reflects less an unscrupulous strategy to cook up common positions with China than a straightforward desire to curry its favour. Call it "pre-emptive obedience", an old East German term recalled by Thorsten Benner, director of the Berlin-based Global Public Policy Institute. That is worrying, and governments that subordinate European foreign policy to their own investment needs will win few friends. But it is no reason to panic. Chinese investments in eastern Europe are dwarfed by those from the west, notes Tomas Valasek of Carnegie Europe, a foreign-policy think-tank. For China, central Europe is at best a minor element of a larger Eurasian strategy linked to its "One Belt, One Road" infrastructure wheeze.

Europe's second fear is of a wealthy, calculating China acquiring critical infrastructure and nabbing its secrets. This is another familiar concern, but the scale and manifest ambition of Chinese investment sharpen its edge. Beijing's "Made in China 2025" strategy, explicitly modelled on Germany's "Industry 4.0" policy, aims to transform the country into a high-tech manufacturing powerhouse in industries like aviation and robotics. Snapping up innovative European firms, and their patented technologies, is an obvious shortcut.

Investment with Chinese characteristics

In parts of Europe the ground is shifting, especially in Germany, where old concerns over a French-led protectionist push are yielding to fears of Chinese intentions. The acquisition last year by Midea, a Chinese appliance maker, of Kuka, a leading German robotics firm, was a turning-point. Sigmar Gabriel, the then economy minister, had unsuccessfully sought a European buyer in the hope of keeping Kuka's technology out of Chinese hands. There is also dismay at the mounting difficulties European companies face inside China. The EU Chamber of Commerce there says its members are "suffering from accumulated promise fatigue". Germany has tightened its investment-screening rules, and Mr Gabriel has warned China against playing European governments off against one another.

As it happens, they are perfectly capable of doing that themselves. Next to America's or Japan's, Europe's toolbox for blocking foreign investment is limited. Leaders like Emmanuel Macron, France's president, think that naive. Earlier this year a joint Franco-German-Italian statement urged centralising such powers in Brussels for "strategic" sectors. But the big three faced resistance from a coalition of northern European free-traders, central European chancers and southern European beneficiaries, all of whom see more to cheer than jeer in the prospect of Chinese investment. The European Commission has now proposed a limp draft law that allows co-ordination of national screening efforts.

There will be many more opportunities for this dispute to play out. The surge in China's investment, and the shift in its targets, represent a serious challenge. It is perhaps harder than ever to balance openness to trade with caution against its abuse. But in the age of Trump and Brexit, it falls to Europe to bang the drum for open borders and a rules-based order. Its governments are not powerless. Vigilance is wise; confidence a useful adjunct. ■



The Brexit negotiations

The siren song of no deal

The government's slow and painful concessions have not killed off the idea that it would be better just to walk out. That is a dangerous delusion

ALL the signs are that Britain is caving in on the three issues in the first phase of the Brexit talks. Theresa May was told she had to yield by next week to persuade the European Union summit on December 14th-15th to agree that there had been sufficient progress to begin talks on transition and a future trade framework. The prime minister has duly made big concessions on the rights of EU citizens in Britain and on the exit bill, perhaps enough to pass the test. There even seems to be some movement on the trickiest issue of all, how to avoid a hard border between Northern Ireland and the Republic, making a December deal more likely—but still not certain.

Yet behind the good news lurks a persistent and dangerous threat. The more that Mrs May yields, the more some Brexiteers argue that Britain should leave on March 29th 2019 without any deal at all. Even if she wins agreement to move to phase two of the talks, the lure of no deal will not disappear. Brexiteers hate the concessions that are being made in phase one, especially over money. And trade buffs are united in predicting that the phase two could prove even more painful, with the EU sticking to a rigid line on trade terms.

Even so, most people see Brexit with no deal as a disaster to be avoided at almost any cost. Yet the idea keeps returning, in two guises. The first is tactical. In any negotiation, it is said, one must be willing to

walk away to get a good deal. Many Brexiteers fault David Cameron, Mrs May's predecessor, for making clear in his renegotiation of Britain's EU membership before the referendum that he would campaign to stay no matter what. Mrs May still says no deal is better than a bad deal. Brexiteers were cock-a-hoop when the chancellor, Philip Hammond, set aside £3bn (\$3.6bn) for Brexit preparations, including for no deal, in his November budget.

The second guise is the assertion that no deal would not really be so bad. Instead of pursuing the chimera of a generous free-trade deal with a curmudgeonly EU, Brit-

ain could revert to trading on World Trade Organisation terms (never mind that this would not be simple—see box overleaf). David Davis, the Brexit secretary, says no deal actually means a “bare-bones” deal. On this basis, there is no serious risk that aircraft stop flying or nuclear materials are no longer imported. Rational people on both sides can see how damaging this would be to all, so they will prevent it.

Yet this idea of a “soft” no deal is not persuasive. A no-deal Brexit would damage other EU countries, but hit Britain harder. And it defies political logic to think that a decision to walk out with no deal can be harmonious. It would mean not paying the exit bill. It would jeopardise the position of EU citizens in Britain. And it would dash hopes of the deep new partnership that Mrs May says she wants. Amid the recriminations and bad blood, the EU would surely look to its own interests first.

Brexiteers often forget that the EU is a legal as much as a political construct. If Britain left with no deal and no transition, it would fall out of all EU organisations, from Euratom to the European Medicines Agency (EMA). The European Court of Justice (ECJ) would lose jurisdiction. Even if all sides wanted Britain to stay in such bodies, it might not be legally possible.

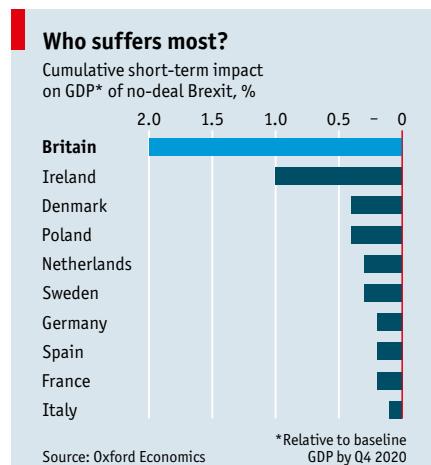
Losers and losers

Oxford Economics has modelled the effects of Brexit with no deal and says that it would lop a cumulative 2% off Britain's GDP by the end of 2020, equivalent to some £40bn. That is far bigger than the impact on other EU countries (see chart). Before the referendum, the Treasury forecast even bigger losses of output. Such numbers are especially daunting when annual growth forecasts for the next few years have just been trimmed to as little as 1.3% ►

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▶ by Britain's fiscal watchdog.

The main hit would come through lower trade. Brexit with no deal would imply tariffs on 90% of British goods exports by value, according to the Confederation of British Industry. It reckons average tariffs would be 4.3% on exports and 5.7% on imports, with some industries like agriculture, cars and clothing hit much harder. And it says additional non-tariff barriers would cost the equivalent of 6.5% on exports. Food prices would also rise: by some 2.7% for affected goods, says a study by the Resolution Foundation, a think-tank, and Sussex University—and the poor would suffer the most. A falling pound after a no-deal Brexit could push inflation up more.

Customs would create huge problems. A new computer system is unlikely to be ready before early 2019 and could anyway not cope with a quintupling of customs declarations to 250m a year. An extra two minutes' delay for lorries at Dover, a conservative guess, would mean long queues. Even if the British were prepared, others might not be. Tailbacks on motorways in Kent in 2015 were caused by problems in Calais, not Dover. Brexit with no deal would also necessarily impose a hard customs border in Ireland, causing much grief.

Emergency stop

Certain industries could suffer gravely. Britain exports 80% of the cars it makes, over half of them to the EU. They could lose their EU certification as well as facing 10% tariffs, plus 2.5-4.5% tariffs on car components, which move a lot in both directions. Honda has said that it maintains only half a day's supply of EU-made components, so any delays would be highly costly. Aston Martin has said that losing EU certification could mean it might have to stop production altogether.

The pharmaceutical and chemicals industries are also vulnerable. Between them they account for 10% of value added in British manufacturing. Falling out of the EMA and the REACH chemicals directive could make it impossible for firms in these industries to export to the EU. The CBI cites a cosmetics-maker which would have to relocate to the continent. Outside Euratom, not only would nuclear power stations be unable to import plutonium, but imports of radioactive isotopes that are vital for cancer treatment and are not made in Britain might have to cease.

British-based airlines are subject to EU rules through the European Aviation Safety Agency, which like all such agencies comes under the ECJ. A no-deal Brexit would mean that they could no longer fly legally between Britain and the EU. Britain would also fall out of the EU's bilateral air-services agreement with America. Banks would lose the passport that entitles them to do business within the EU out of London. There would be long legal arguments

Trade after no deal

Wobbling into the WTO

Brexiters claim that trade on WTO terms alone would be just fine. Wrong

IT HAS long been an article of faith for hard Brexiters: there is nothing to fear from the World Trade Organisation. Many are suspicious of the compromises that a free-trade deal with the EU may entail, such as accepting its rules or even its courts. So why not just walk out and trade with the EU as other countries do, on WTO terms?

One answer is that Britain's relationship with the EU is far more intimate than most countries'. The EU accounts for 43% of Britain's goods exports and half its imports. In services, which make up 80% of British GDP and almost half of exports, the EU market is crucial. Theresa May has dismissed a Canada-style free-trade deal because it would mean "restriction on our mutual market access". Shifting to WTO terms would be worse still.

It is also misleading to claim that the rest of the world trades with the EU on WTO terms. The Institute for Government, a think-tank in London, notes that

all big countries have bilateral agreements on such trade-facilitating measures as customs co-operation, data exchange and standards. Hosuk Lee-Makiyama of ECIPE, a Brussels-based think-tank, says that only seven countries trade with the EU on WTO terms alone—and they are small fry like Cuba and Venezuela.

In any case, reverting to WTO rules is not simple. Britain was a founder of the organisation but now belongs as an EU member. To resume WTO membership independently will require a division of EU import quotas, notably for beef, lamb and butter. A first effort was roundly rejected by big food exporters like Brazil, Argentina and America. The WTO proceeds by consensus among its 164 members. Were Britain to leave the EU on acrimonious terms, negotiating its resumption of full WTO membership could be difficult.

Brexiters say trade with third countries would be easier. Perhaps, but the EU has free-trade deals with some 60 countries, including South Korea and Mexico, and is negotiating one with Japan. It will not be easy for Britain to "grandfather" these deals, especially if it has walked out with no deal, if only because doing so would need EU agreement, too.

Then there is the WTO's "most-favoured-nation" rule, which bars discrimination unless it is allowed by a fully registered free-trade deal. If after no deal Britain and the EU wanted bilateral trade to stay tariff-free, both sides would have to offer the same privileges to all WTO members. Services are barely covered by WTO rules. But even here, were Britain to seek to keep trade in services, the same terms would have to be given to several countries with which the EU has free-trade deals, including Canada. Subjection to WTO rules might yet prove more irksome than Brexiters realise.



over the status of many derivatives contracts. The Bank of England has at least declared that no British bank would go under after a no-deal Brexit.

And then there is security co-operation. A no-deal Brexit would knock Britain out of both Europol and the European Arrest Warrant (EAW), and also deprive it of access to many EU databases of suspected criminals and terrorists, including the passenger-names record that Britain did much to promote. Intelligence-sharing might continue bilaterally. But being outside the EAW, even if only temporarily, could

quickly turn Britain into the preferred haven for any EU criminal, rather like Spain in the 1960s and 1970s.

What all these examples suggest is that a no-deal Brexit would be risky and costly. And that undermines the credibility of a no-deal threat. Yet it could still happen by accident or poor timing. Brexiters may claim that, like forecasts before the referendum, the risks are exaggerated. They should heed Anand Menon, director of Ux in a Changing Europe, an academic network: "This time, Project Fear would not be scaremongering." ■

Bagehot | A menu of misery

Two new books suggest that Britain faces some singularly unappetising choices



AN IRON law of British life these days is that, however bad things seem, the reality is worse. The recent budget sharply downgraded already-weak forecasts of economic growth. Real wages may not recover to pre-crisis levels until 2030. Now two new political books—"Betting The House: The Inside Story of the 2017 Election" by Tim Ross and Tom McTague, and "Fall Out: A Year of Political Mayhem" by Tim Shipman—demonstrate that the country's politics are even more messed up than its economics. The books have slightly different focuses, the first limiting itself to the election while the second studies the wider aftermath of the Brexit vote. But they are both equally depressing.

The first illustration of the iron law is that however bad a politician Theresa May seems to be, the reality is worse. She is devoid of intellectual hinterland. Asked by aides who were preparing her for an interview to list her hobbies, she replied after some thought: "I do really like Sudoku." She has little emotional intelligence. Confronted with a succession of national emergencies—the Manchester bombing, the London Bridge terrorist attack and the Grenfell Tower fire—she failed to show any human warmth.

And that's just for starters

Mr Shipman notes that she has no "second gear". Despite his laid-back style David Cameron, her predecessor, was capable of shifting up a gear under pressure. Mrs May is more likely to apply the brakes. Mr Shipman notes that "unexpected questions created a brief flicker in her eyes that combined fury and fear, something her aides called 'the flash'." Messrs Ross and McTague report that, when the election campaign started falling apart, Mrs May turned up at Conservative headquarters only to deliver a stump speech. "I couldn't believe it," one activist said. "This was the prime minister of the United Kingdom talking in the middle of an election to her own campaign staff and she couldn't even hold the room. People were checking their phones." Walter Bagehot, a 19th-century editor of *The Economist*, described Robert Peel, who repealed the Corn Laws and introduced an era of free trade, as a man of ordinary opinions and extraordinary abilities. Mrs May, who is leading negotiations which could be just as consequential for Britain's future, is a woman of ordinary opinions and ordinary abilities, if that.

The second illustration of the iron law is that, however dysfunctional the Downing Street machine seems, the reality is still more chaotic. Britain has had a problem for some time with unelected aides who wield enormous power: think of Alastair Campbell's relationship with Tony Blair. But the problem reached new levels with Mrs May's government because of the combination of her personal fragility and the concentration of power in Downing Street after the Brexit vote. Insiders quoted in both books argue that Mrs May was almost "taken prisoner" by her co-chiefs of staff, Nick Timothy and Fiona Hill. Mr Timothy, a bearded intellectual, used her as a vehicle for his One Nation brand of Conservatism, which saw Brexit as a chance to refocus the party on people of modest means and conservative instincts. The "chiefs" exercised ruthless control over access to Mrs May and had a special office, called "the bollocking room", for dressing down officials and even ministers.

Mr Shipman provides an astonishing series of quotes about life under the chiefs. One insider confided that Downing Street was "literally a shag-fest, with people drunk on power and living on the edge". Another veteran said that he had not seen "worse behaviour from a senior aide in 25 years". The chiefs publicly referred to Philip Hammond, the chancellor of the exchequer, as "the cunt". They are thankfully gone, sacked (and, in Mr Timothy's case, shorn) after the disastrous election. But the problem of Mrs May's weak leadership remains. The cabinet is dominated by colourful personalities with passionate views on Brexit, while Downing Street is devoid of ideas.

The third illustration is that however feeble Britain's defences against a hard-left government led by Labour's Jeremy Corbyn seem, the reality is weaker. The most worrying thing about Mrs May is not that she is an aberration, but that she is the embodiment of today's Conservative Party. Campaign managers calculated that the number of active Tory party members was about 50,000. In Brighton Kemptown, the local association consisted of little more than the candidate and his family. By contrast Labour has half a million active members, mostly young and fired up.

With its grassroots withering, the Tories have relied on highly paid advisers such as Lynton Crosby, an Australian, and Jim Messina, an American. But these hired guns have become out of touch. Mr Messina predicted that the Tories would win 470 seats, giving them a majority of 290. Mr Crosby relied on robotic messages ("Strong and stable") and relentless micro-targeting (the Tories delivered 4,000 different messages to Facebook users). By contrast, Labour understood that weariness with the status quo and the empowerment of activists through social media had changed the rules of politics. Momentum, a pro-Corbyn pressure group, used ride-sharing apps to get activists to marginal seats. Its shareable videos were spread at almost no cost: one in three Facebook users saw Momentum ads, despite the fact that the group spent only £2,000 (\$2,700) buying ads on the social network. The Tories will not have caught them up by the next election.

There are a few encouraging words in these two excellent books. The Conservative Party has some talented younger politicians, who combine political star power with an ability to relate to a changing nation. Mr Corbyn fell 60 seats short of winning a majority, despite the Tories' disastrous campaign. But the message is glum. The next election is not only likely to put Mr Corbyn in Downing Street. It is also likely to put hard-left advisers such as Seumas Milne and Karie Murphy in the seats that were once occupied by Mrs May's powerful, unaccountable "chiefs". ■



Woodlands

The foresting of the West

ESLN

The steady expansion of tree-covered land in rich countries is not always popular. It will continue all the same

COLM STENSON drives around County Leitrim, pointing out new tree plantations. In this corner of Ireland, close to the border with Northern Ireland, conifers seem to be springing up all around. The encroachment is not just visual. Mr Stenson, who is a police officer as well as a cattle farmer, recently received a bill from his feed supplier. It came with a brochure advertising easy returns from converting farmland into woods. Forestry companies tout for business in the local livestock market. The forest is “closing in”, he says.

In the 1920s, when Ireland became independent, it was thought to have just 220,000 acres (90,000 hectares) of woods, covering about 1% of the land. Once-extensive forests had been shrinking for centuries. Farmers had cut trees for firewood and to clear space for animals and crops since at least the fourth millennium BC; some tree species were wiped out by disease. Beginning in the 17th century, most of the trees that remained were felled to build ships or fed into charcoal kilns to fire the Industrial Revolution.

Today, though, almost 11% of Ireland is covered with forest, and an unknown additional amount by small woods and scattered trees. The government’s target is to cover 18% of the land area with forests by 2046. Ireland is behind schedule. Still,

about 6,000 hectares of new forest ought to be planted this year, while almost none will be lost. It is part of a broad trend: the foresting of the West.

Trees are spreading in almost every European country (see map on next page). Because many of these forests are young, the quantity of wood in them is growing faster than their extent. Europe’s planted forests put on a little more than 1.1m cubic metres of wood per day. For comparison, the iron in the Eiffel Tower is about 930 cubic metres. Russia’s forests spread more slowly in percentage terms between 2005 and 2015, but, because Russia is so big, more than in the entire European Union in absolute terms. Forests now occupy a third of America’s land, having grown by 2% in the past decade. They are even expanding in Australia, following a long decline.

Trunk routes

Deforestation in South America and Africa rightly gets most of conservationists’ attention. That loss is huge—equivalent to about 4.8m hectares a year, which far outweighs gains elsewhere. Yet the foresting of rich countries is still one of the world’s great land-use changes. It seems just as unstoppable as the deforestation of poorer places. It has plenty of critics, too.

The growth of forests is partly a result of

changes to food markets. As the best farming areas have become more productive, and as rich countries have imported more of their food, marginal land has become unusable for ordinary agriculture. Some of the most dramatic forest growth in Europe has been in high, dry places where farmers once scratched a living from goats, sheep or olives. Forests now cover two-thirds of Catalonia, in Spain, up enormously from a century ago. In America, the fastest expansion over the past ten years has been in states such as Oklahoma and Texas, which have indifferent soils. “Good cropland is always going to be good cropland,” says Thomas Straka, who follows American forestry at Clemson University. But “a lot of land should never have been planted.”

Forests are also growing because governments have favoured them through laws and subsidies. Forest-boosting has a long history, beginning with a French forest ordinance in 1669. In Europe, war drove policy: countries needed wood for warships and then, after the first and second world wars, sought to become self-sufficient in a bulky commodity. In America, a ready supply of cheap home-grown wood was seen as essential for the creation of a suburban, home-owning democracy.

Since the 1990s environmental considerations have weighed more heavily. Forests are increasingly valued as sponges for heavy rain, as wildlife habitats and as carbon sinks. Governments point out that their countries used to be thickly forested—even if the large forests disappeared many centuries ago, as is the case in a country such as Iceland. Some feel inadequate: European countries with scant forest cover sometimes lament how far behind the EU average they have fallen.

- Whatever their reasons, governments have treated forests generously. In Britain, forests are not liable for capital-gains tax (though the land under them might be). If a forest is bought with the proceeds of a business sale, the tax that would be payable is deferred. Timber sales incur neither corporation tax nor income tax. Forests can be transferred to heirs free from inheritance tax. And, whereas many farm payments in the EU have been decoupled from production, forest subsidies reward planting. The rate in England is £1.28 (\$1.72) per tree, plus grants for fences and gates. Money does not grow on trees, goes one quip—trees grow on money.

Planted forests are far from universally popular, though. Between June and October this year, forest fires in Spain and Portugal killed more than 100 people and darkened Europe's skies. The fires were partly blamed on the spread of non-native trees, especially eucalyptus. That Australian import, which was planted with support from the World Bank, among others, grows so quickly that trees can be harvested for pulp when less than ten years old. It also burns readily, scattering embers far afield. Portugal's government has begun to restrict planting, in an effort to prevent the country from turning into what one green group calls "Eucalyptugal".

The eucalyptus tree is a scapegoat for a bigger problem, argues Marc Castellnou, a fire analyst in Spain. The real trouble is that forests in Portugal and Spain have expanded quickly, with little thought for the consequences. Well-managed eucalyptus plantations are not the biggest danger—much worse are ill-managed ones with lots of underbrush and fallen wood, and the impromptu forests that grow on abandoned farms. The fires that get going in such forests jump to the treetops and burn so energetically that they cannot be stopped.

In Ireland, the criticisms are different. The country's default tree is the sitka spruce, a fast-growing, damp-tolerant conifer from America's Pacific Northwest. Spruce plantations are said to be devoid of life—vertical deserts of dark green. They are accused of wrecking rural communities and driving farmers off the land. And they are said to be out of place in a mostly pastoral setting. Gerry McGovern, another farmer in County Leitrim, puts it bluntly: conifer forests are "not landscape".

The first charge is false. Mark Wilson of the British Trust for Ornithology says that conifer plantations support more bird life per hectare than farmland, largely because they harbour more insects. Inevitably, some birds benefit more than others. The march of conifers across Britain and Ireland has increased the numbers of pine-loving birds such as siskins and crossbills. Conifers are also loved by crows—which is less obviously good, because crows raid the nests of rare birds such as curlews.

The second accusation, that trees push out other kinds of agriculture, is only partly true. Forestry subsidies and regulations have indeed distorted Ireland's land market. Farmers who plant trees get generous payments for 15 years, while continuing to receive ordinary farming subsidies. At that point, with perhaps 20 years to go before conifers are harvested, they often sell to pension funds and other investors.

Forested land in Ireland hardly ever returns to farming. To help speed national afforestation, the government requires that land cleared of trees must be planted with new trees (which are not subsidised). Ireland also bars commercial planting on the poorest soils, where young trees would struggle. Partly as a result, forests have spread from the hills to the lowlands, says Steven Meyen of Teagasc, Ireland's agriculture authority. Macra na Feirme, which lobbies for young Irish farmers, argues that forest payments are now preventing good land from coming onto the market.

That said, trees are sprouting in rural Ireland because farmers want them to. Many own at least one indifferent, boggy corner of land where animals get stuck and only rushes grow well. Stephen Strong, a farmer in County Meath, has planted 80 acres of his 500-acre farm with sitka spruce, Norway spruce, oak and ash. The trees require much less attention than the sheep that grazed there before—"where you have sheep, you have trouble," he says. Forestry appeals especially to ageing farmers who are looking for a gentle exit. In 2015, 45% of newly planted land in Ireland was owned by people aged 60 or older.

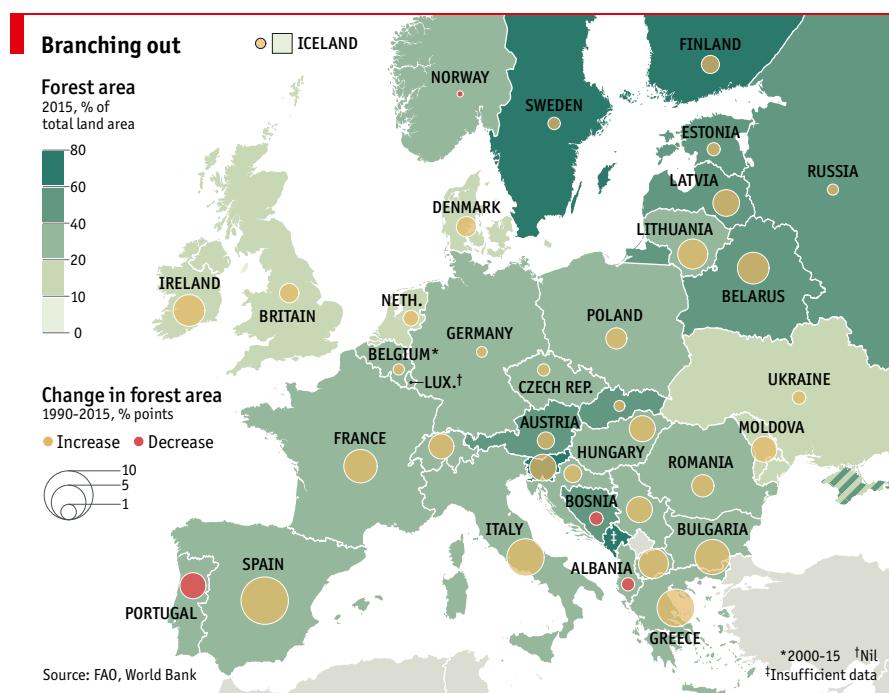
The final accusation, that forests are drastically changing the appearance of the countryside, is spot-on. Advocates may

point to a forested past. But rural people have become used to the landscape as it is, and often do not want it to change. What worries Mr Stenson, in County Leitrim, is not just that the ever-spreading trees will displace farmers and make it hard for him to acquire more land, but also that they will prevent him from seeing his neighbours' lights at night.

In America and Germany, people have been conditioned to see forested landscapes as sublime by painters like Caspar David Friedrich and Albert Bierstadt. Irish painting and poetry, by contrast, usually celebrates hills, bogs and farms. In "The Deserted Village", published in 1770 and probably inspired by scenes from his birthplace in Ireland, Oliver Goldsmith lamented the transformation of a lively landscape, studded with cultivated farms and busy mills, into a silent one dominated by "glades forlorn" and "tangling walks".

Safe arbours

Ireland and other countries will nonetheless have to get used to the green invaders. The EU's Common Agricultural Policy is set to change in 2020. Nobody yet knows how, but it is a safe bet that subsidies will tilt towards greenhouse-gas mitigation, which will probably mean more money for carbon-absorbing forests and less for methane-belching livestock. John O'Reilly, the boss of Green Belt, a forest-management company, worries that Ireland's afforestation rate might dip below 6,000 hectares a year in the next few years—a level that he views as necessary for sustaining business. He also worries about Brexit, because Britain is a crucial market for Irish timber. He is not at all worried about the long-term future of his industry. ■





Business and society

America Inc gets woke

NEW YORK

Employees are leaving bosses with little choice but to mount the barricades

AT THE start of Donald Trump's presidency bosses rushed onto his business councils, hoping to influence policies in their favour. Their ardour has cooled. When Mr Trump banned travel from Muslim-majority countries, withdrew from the Paris agreement on climate change and equivocated on racist protesters in Charlottesville, to name but a few occasions, chief executives roared their protest.

"Un-American," declared Reed Hastings, Netflix's chief executive, of the immigration ban. Sergey Brin, a co-founder of Google, told a reporter, "I am here because I am a refugee" as he joined protesters against the ban at San Francisco's airport. "I feel a responsibility to take a stand against intolerance and extremism," wrote Kenneth Frazier, boss of Merck, a pharma giant, after Charlottesville. "Isolate those who try to separate us," added Lloyd Blankfein of Goldman Sachs. Other executives have joined lawsuits to overturn Mr Trump's policies and condemned his actions in memos to staff.

Firms have been sucked into social and political debates before. Anti-apartheid campaigners mounted boycotts against firms that did business with the South African regime, for example. But it is happening more and more often. In 2015 came the news that Indiana was considering a "religious freedom" bill that would allow companies and non-profit organisations to discriminate against gay and transgender

individuals. Tim Cook, chief executive of Apple, a technology firm, criticised the law even though Apple itself has little presence in the state. Salesforce.com, another tech firm, applied sterner pressure, threatening to withdraw jobs. State bills discriminating against transgender and gay people have attracted strong opposition from firms headquartered across America, not just in left-leaning California—from Bank of America (North Carolina) to Dow Chemical (Michigan) and ExxonMobil (Texas).

Come halo or high water

The Trump era has made it even harder for executives to stay above the political fray. More than 1,400 companies and investors have signed a pledge to uphold the Paris climate agreement, in defiance of Mr Trump. Visa, a credit-card giant, and 3M, a manufacturing firm, are among those to have cut advertising from Breitbart News, a right-wing news site founded by Stephen Bannon, Mr Trump's former adviser. One serial investor and director of a tech giant says that fired-up employees have made it extremely difficult to be seen to co-operate with the administration in any way at all.

That is a big shift. In the past companies did their best to remain apolitical. The commercial rationale for caution was best expressed by Michael Jordan, a basketball star, when he quipped that "Republicans buy sneakers too". Companies believed that their main purpose was to maximise

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returns for shareholders, not to meddle in politics. "The social responsibility of business is to increase its profits," wrote Milton Friedman, an economist, in 1970. Lobbyists became increasingly adept at pushing policymakers towards lower taxes and fewer regulations; they said little or nothing about social issues.

No longer. The reactions to Mr Trump are reinforcing a longer-term trend for business to become more outspoken. Multinational companies in particular are more likely to combine their support for globalisation with the espousal of wider societal goals such as protecting the environment, ethnic diversity and gay rights. A small but rising number of firms have committed to a new corporate purpose altogether, declaring their objectives to be broader than mere profits. The past decade has seen the launch of "benefit corporations" which work to meet specific goals for society as well as for their investors; there are more than 2,300 of these around the world, with the greatest number in America.

Such trends are not confined to America. Companies in Europe have long had an expansive view of their social responsibilities; now worries about inequality and the resulting populism are strengthening that stance. Unilever, a giant Anglo-Dutch seller of consumer goods, for example, prides itself on treating staff well and supporting environmental sustainability. But the phenomenon is particularly marked in America, due to the number of giant firms headquartered there and because Mr Trump is so uniquely hard to ignore.

The controversies of Mr Trump's presidency aside, there are two big structural reasons for firms' newfound sense of purpose. First, many bosses feel they have little choice but to respond to their staff, who are increasingly vocal on political and on cultural issues. Second, companies' main ➤

► shareholders—stitutions such as pension funds and asset managers—are themselves paying more attention to social objectives.

Start with the staff. According to a report from Weber Shandwick, a public-relations firm, “CEO Activism in 2017: High Noon in the C-Suite”, 44% of millennial American employees say they would be more loyal to their company if their boss took a public position on a societal issue, compared with 19% who would be less loyal. Weber Shandwick found that, globally, 63% of executives of prominent firms feel the need to have a position on issues such as immigration and climate change.

The real office politics

That position usually, but not always, breaks to the left. Large companies still tend to line up with the Republican party on policies that have a direct impact on their business—a specific regulation, for instance, or a tax provision. But many of America’s biggest companies have their headquarters (and most of their senior staff) in states and in metropolitan areas that voted for Hillary Clinton. Employees of large firms examined by *The Economist* usually gave more to Democratic candidates than to Republican ones (see chart for selected examples).

So it should come as little surprise that companies increasingly support causes that are traditionally associated with Democrats, including gay rights and environmental sustainability. More than 80% of the firms that opposed Mr Trump’s ban on travel from Muslim countries are based in states that voted for Mrs Clinton, as are the majority of the firms and investors that signed the pledge to uphold the Paris climate agreement. Staying neutral is especially hard for firms in Silicon Valley, where staff are often liberal.

“Heartland” companies, far from the liberal coasts, also face pressure to react to specific political events or to advance a

wider agenda. On November 21st Doug McMillon, the boss of Walmart, a ubiquitous retailer, described the expanding expectations from various quarters for his company, such as advancing education. In 2015 Walmart moved to oppose a “religious freedom” bill like that in Indiana in its home state of Arkansas, stopped selling products carrying the Confederate flag after a mass shooting at Charleston and also stopped selling assault-style rifles.

Some firms are wholeheartedly conservative in their views. Charles Koch of Koch Industries, the second-largest private firm in America, for example, has spent hundreds of millions backing right-wing causes. And smaller conservative-leaning businesses have not held back from fighting cultural battles. In 2014 the Supreme Court ruled that “closely-held businesses” such as Hobby Lobby, a chain of crafts stores, could have religious beliefs and thus be exempt from laws that flouted them. As a Christian firm, it had objected to having to pay for insurance coverage for emergency contraception under the Affordable Care Act. Another case now before the Supreme Court—that of a baker who refused to make a wedding cake for a gay couple—might end up exempting businesses from anti-discrimination laws if they violate owners’ spiritual beliefs.

Institutional investors add to the pressure on firms to get involved in political and social issues. In 2006 the United Nations issued principles for responsible investing, urging shareholders to consider environmental, social and governance factors. By 2015, institutions managing about \$59trn had endorsed these principles. As pension-fund trustees and mutual-fund investors take social objectives more seriously, asset managers such as BlackRock and Vanguard have tried to woo them by launching new funds and indices focused on well-behaving firms. The assets managed under such criteria jumped to

\$22.9trn last year, from \$13.3trn in 2012.

What does this all mean for companies? One danger lies in doing too little. Hollow posturing about corporate social responsibility is easy enough to expose. Employees and shareholders can hold companies to account using data or by consulting independent monitors such as the Human Rights Campaign, which scrutinises how firms treat gay and transgender employees, or the World Wildlife Fund, which tracks firms’ environmental work.

A second danger lies in alienating people on the other side of an issue, the president among them. Companies that have opposed Mr Trump risk being singled out by him. In August a single tweet from Mr Trump complaining about Amazon’s impact on conventional retailers (and jobs) wiped out \$6bn of its market value.

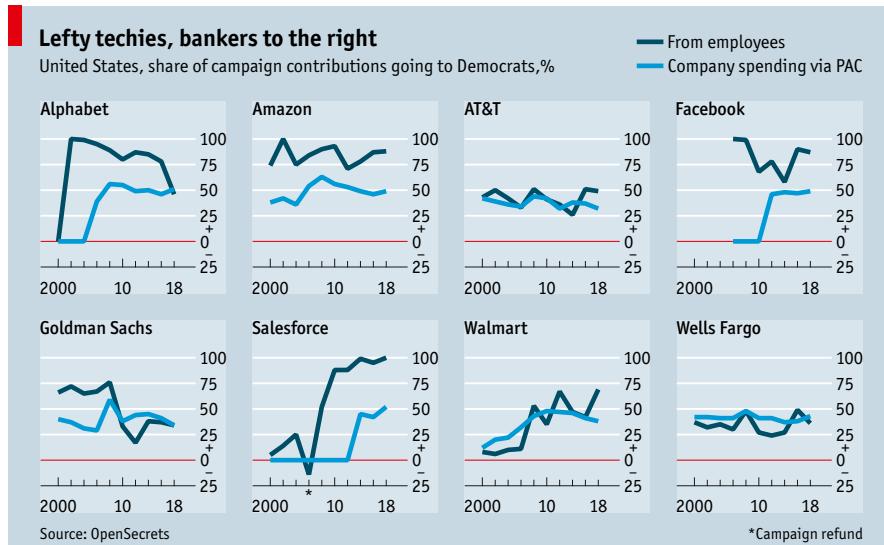
Firms may also displease customers, who can more easily complain about companies and organise boycotts using social media. In 2015 Starbucks, a coffee chain, urged staff to begin conversations about race with customers; the attempt was widely ridiculed. More recently Keurig Green Mountain, a coffee-machine maker, withdrew advertising from a show on Fox News after its host failed to condemn Roy Moore, a Senate candidate accused of dating and assaulting teenagers. Mr Moore’s supporters then posted online videos of themselves smashing their devices.

Rage against the Keurig machine

These risks are not always as extreme as they might seem, however. Despite the occasional misstep Starbucks has thrived; its chairman, Howard Schultz, champions the idea that firms should serve both their shareholders and a broader set of interests, including staff and civil society. Angering Mr Trump, ostensibly the world’s most powerful man, may not have lasting effects, either. Amazon’s stock has more than recovered since his tweet in the summer. When Mr Trump criticised Nordstrom, a department store, its share price rose.

It seems unlikely that companies’ new activism will fade. Ignoring the issues that helped propel Mr Trump into office in the first place is becoming a less plausible option for many bosses. After the global financial crisis it was bankers who attracted most populist ire. Chief executives are still more trusted than politicians, according to a recent survey by Edelman, a public-relations firm—but that trust is eroding quickly.

Big multinationals such as Apple are under increasing pressure to eschew complex manoeuvres that reduce their tax bills. Sky-high executive pay is another focus of populist discontent. Firms are also having to grapple, often unconvincingly, with the question of how to help workers threatened by the spread of technology. Mark Zuckerberg, chief executive of Facebook, is among those to have suggested the idea of ►



► a “universal basic income”—an unconditional payment to all citizens—to deal with stagnating wages and automation; critics say that could further disenfranchise the less-skilled.

As companies make their voices heard on social issues, they may start to do so in different ways. Corporate bosses have long given to candidates—Cornelius Vanderbilt, a 19th-century tycoon, for example, showered Ulysses Grant with cash. Firms themselves can now take a more active part in politics, thanks to the Supreme Court’s decision in *Citizens United v Federal Election Commission* that businesses can spend unlimited amounts in elections (as long as they do not donate directly to a candidate).

They could also change how they lobby. Apple, Google and Amazon, some of the most politically vocal companies of the past year, have each more than quadrupled their annual lobbying spending since 2007. But most of the cash has gone on narrow business issues such as net neutrality, intellectual property and privacy. Aaron Chatterji of Duke University thinks there will be rising pressure, from staff and consumers, for firms in many industries to match their rhetoric with lobbying on specific societal issues in Washington, DC.

Mr Zuckerberg has taken a more direct approach. He has just concluded a tour of 30 states to try and connect with Americans of all backgrounds. Alexis de Tocqueville, in his own journey through America in the 19th century, observed what he called the country’s “self-interest, properly understood”—the idea that an individual’s attention to the common good served himself as well. Companies keen to protect their interests are increasingly taking that observation to heart. ■

Japan’s product-quality scandals

Kaizen crisis

TOKYO

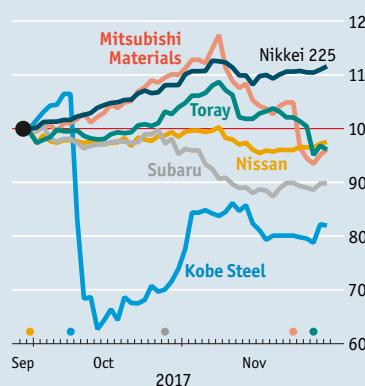
Two more illustrious Japanese firms admit to falsifying inspection data

AKIO MORITA, co-founder of Sony, liked to recall his first trip to Germany in 1953, when a waiter stuck a small paper parasol in his ice-cream and sneered: “This is from your country.” Like many of his post-war compatriots, Mr Morita was ashamed that Japan was known for shoddy goods. The fierce drive to reverse that reputation resulted in the Deming Prize, a quality-control award named after an American business guru so revered in Japan that he received a medal from the emperor for contributing to its industrial rebirth. All that hard work is under threat.

Toray Industries, a textiles and chemi-

Qualitative failings

Share prices, September 28th 2017=100



cials giant, is the latest pillar of corporate Japan to admit to quality problems. This week a subsidiary said it had faked inspections on reinforcement cords used to strengthen car tyres. Sadayuki Sakakibara, a former president of Toray, said he was “ashamed” and apologised on behalf of Keidanren, the powerful business lobby he now heads. On November 23rd, Mitsubishi Materials sheepishly confessed (during a public holiday) that its subsidiaries had falsified data on aluminium and other products used in aircraft and cars, given to customers in Japan, America, China and Taiwan. Those customers include Japan’s air force, earning a rebuke from Itsunori Onodera, the defence minister.

Kobe Steel, which was founded in 1905, recently revealed that it had sold “non-conforming products” to Boeing, Ford, Toyota and other household names. The firm had faked data on the tensile strength—the ability to withstand loads without breaking—of aluminium sheets, copper products and other items shipped to over 500 companies. Nissan and Subaru, both car firms, have admitted to similar fakery.

The welter of revelations is bad for Japanese business as a whole. Its main defence against low-cost competitors from China, Taiwan and South Korea is its reputation for quality, says Takeshi Miyao, a consultant to the local car industry. Hiroshige Seko, the economy minister, said the falsifications had “shaken the foundations of fair trade” and demanded to know why it had taken Mitsubishi over six months to admit misconduct. That is timely compared with Nissan. Its use of uncertified technicians on final vehicle checks goes back 40 years. The technicians reportedly borrowed *hanko*—Japan’s all-important signature seals—from qualified inspectors.

Ironically, a corporate-governance code introduced in 2015 to rev up competitiveness may explain why such facts are coming to light. The code, which includes a whistleblowing clause, has encouraged

Japanese corporate rule-breakers

When news emerged	Affected
Sep 29th Nissan	1.2 million vehicles recalled
Oct 8th Kobe Steel	20,000 tonnes of metal
Oct 27th Subaru	400,000 vehicles recalled
Nov 23rd Mitsubishi Materials	270 million units
Nov 28th Toray	149 cases, 13 customers affected

employees to speak out, says Toshiaki Oguchi of Governance for Owners Japan, a governance lobby group (Toray disclosed its cheating only after an anonymous online post). Privately, people at car firms complain that the problems in their industry relate to excessively stringent government standards introduced in the early 1950s. Some workers consider them primitive and unnecessary.

It is also possible that manufacturers set standards too high. Many have stayed ahead of competitors by promising to deliver products that go far beyond minimum standards of quality or performance, says Alberto Moel, a specialist in industrial robotics. Conflict occurs when pressure flows down to the factory floor to meet those promises, he says. “Then you get corner-cutting, misrepresentations and sometimes unethical or even criminal behaviour.” Nissan’s woes have been blamed by some on Carlos Ghosn, its former chairman (nicknamed “Le Cost Cutter”), who sacked thousands of workers.

That followed years of restructuring. Most Japanese companies now have at least two independent directors on their boards; until recently, they usually had none. The result is closer scrutiny of wrongdoing, along with greater pressure to perform well financially. The battle between quality and cost-cutting will surely intensify, says Mr Oguchi. “The key is getting the balance right.” ■

China Literature

Biblio filed

HONG KONG

China's largest online publisher enchants investors and readers alike

WHENEVER Xu Jie goes to the cinema to watch mystery and detective films, she leaves disappointed: to help stamp out superstition, China's censors excise ghosts and zombies from the screens. So for her fill of phantoms, she turns to the flourishing online-literature scene. There, authors are allowed to take liberties from which most of China's state-owned publishing houses would recoil. Homophones stand in for forbidden words. *Danmei*, a new online class of homoerotic story, is especially popular among young women. Readers can choose from over 200 established genres such as *xianxia*, a fantasy world of deities and martial arts.

The corporate prince of this virtual realm is China Literature, a spin-off from Tencent, a gaming and social-media giant. The four-year-old online publisher listed on Hong Kong's stock exchange on November 8th, raising just over \$1bn. The offering was a huge success; at the end of its first day of trading, China Literature reached almost \$12bn in market capitalisation, nearly 2,700 times its earnings of \$4.5m in 2016 (it lost money in 2015).

Investors are spellbound chiefly by its link to Tencent, which on November 20th became Asia's first firm to be valued at over \$500bn and which still owns just over 50% of China Literature. Retail investors—particularly those who missed out on the giant's own IPO in 2004—may be hoping China Literature is the next Tencent. As the latter expands its entertainment empire into films and TV dramas, China Literature's library offers a trove of intellectual property; local analysts have nicknamed it “Tencent's natural son”.

China's book market (fiction and non-fiction) is the biggest in the world by number of new publications. Of total written fictional output, online storytelling, which is mainly read on smartphones, is thought to make up 11%. Within the next three years that share is expected to double. To capture more bookworms, Tencent combines spectacular reach—over 960m monthly users alone on WeChat, its mobile-messaging app—with a host of algorithms that push appealing content to customers. China Literature's dominance has helped it to attract 6m authors to its platform, representing 88% of all those writing online books, according to a study by Frost & Sullivan, a consultancy. Hit writers are among them. Of the country's ten bestselling authors in 2016, six were online-literature writers.

Many of the authors are amateurs, though two-fifths write full-time, and they are young, with an average age of 28. China Literature's repository—close to 10m works in genres from fantasy to sci-fi, mystery to romance—attracts close to 200m readers a month across its web and mobile platforms, and half of China's total daily online-literature fans. China Literature is home to 72% of all original online works; Alibaba Literature and Baidu Literature, owned by China's two other tech giants, came later to the field and have just 5% of the virtual library between them.

About four-fifths of China Literature's revenues come from charging, on some books, a small fee to read on after sample chapters (proceeds are shared with authors). Most are serialised. Readers are enticed to pay per 1,000 Chinese characters or subscribe for 18 yuan (\$2.70) a month. For now, only 5% of its customers are paying readers. But Morgan Stanley, a bank, expects that share to grow to 8% within the next two years. As their incomes rise, young Chinese are spending more on higher-quality entertainment. There is room for growth: Ms Xu says she is still spending far less on online books than on mobile games, for example. Mobile wallets, including WeChat Pay, which is owned by Tencent, have made paying a cinch.

The remaining share of the company's revenue is from owning the rights to stories that are adapted for film, television, games and so on, and from licensing them to other producers. Investors expect that this income stream will grow quickly, says Nelson Cheung of Formula Growth, a Canadian investment firm that owns shares in China Literature.

Wu Wenhui, one of China Literature's bosses, says he aspires to be “China's version of Marvel Comics”, the American creator of Spider-Man and the X-Men, and

corporate sibling to Marvel Studios. Tencent is the “perfect incubator” for those ambitions, says Wang Chen of TF Securities, a brokerage: China Literature is already co-operating with Tencent Penguin Pictures, a newish film-making arm, and Tencent Games, the largest gaming company in the world by revenue. In 2016, 15 of the 20 most popular TV dramas and video games adapted from online works were licensed from China Literature.

Twists are possible. Copyright protections are weak. China Literature reported in its filing document that pirated online content led to a loss in revenue of 11bn yuan for the market in 2016. Tighter regulation or new censorship rules could upset the narrative. Drafts are reviewed before publication by editors at China Literature, but the firm knows the value of the relative creative freedom that its online realm allows. Its own story is testament to that. ■

Digital news organisations

Buzz kill

NEW YORK

The last in our series on the future of journalism looks at digital news outlets

GREAT expectations attended digital journalism outfits. Firms such as BuzzFeed and Mashable were the hip kids destined to conquer the internet with their younger, advertiser-friendly audience, smart manipulation of social media and affinity for technology. They seemed able to generate massive web traffic and, with it, ad revenues. They saw the promise of video, predicting that advertising dollars spent on television would migrate online. Their investors, including Comcast, Disney and General Atlantic, an investment firm, saw the same, pouring hundreds of millions of dollars each into Vice Media, BuzzFeed and Vox (giving them valuations of \$5.7bn, \$1.7bn and over \$1bn, respectively).

They have had successes. Some became ninjas in “SEO” long before most print journalists knew it stood for “search engine optimisation”. They introduced “clickbait” to the lexicon. Some, like BuzzFeed and Vice, worked out that fortunes were to be made in brand-supported viral hits—or “native advertising” that looks similar to the sites' own snazzy editorial content. They gave the internet “listicles” like BuzzFeed's “19 Mindblowing Historical Doppelgangers” (sponsored by Virgin Mobile) and uplifting stories, like those from Upworthy, where “you won't believe what happened next”.

But a brutal winter is setting in. BuzzFeed will probably miss its revenue target, of \$350m this year, by 15-20%, and is to lay



WeChat, we read

off 100 of its 1,700 staff. Vice is also expected to fall short of its revenue target, of \$800m. Mashable, a once-trendy site valued in 2016 at \$250m, in November agreed to be sold for \$50m to Ziff Davis, a print-turned-digital publisher. Other news sites are up for sale, cutting their staff or closing shop, sending ink-free scribes in search of work. Digital media are, in other words, enduring similar woes to their print peers. "There was this hype bubble that convinced everybody that these digitally native companies are different but they are not," says an executive at one such previously overvalued firm. "People need to re-adjust their expectations."

The natives have run into much the same problem as print newspapers have encountered: the duopoly of Alphabet (owner of Google and YouTube) and Facebook. The tech giants rule digital advertising in two ways. First, by dominating the business of selling and servicing ads, they take a healthy cut of those sold by publishers themselves. Second, they get advertisers to bypass publishers and spend directly on their platforms. Such is the demand that AdStage reckons ad prices on Facebook nearly tripled in only eight months this year, to \$11.17 per 1,000 impressions. That is still a lot cheaper than native advertising—the bespoke ads made by firms such as BuzzFeed and Vice. Google's and Facebook's tools for targeting users strike advertisers as a more efficient, scalable way to reach specific audiences.

The duopoly are expected to get a majority of digital ad sales in America this year, and almost all of the growth. The media firms that supply Google and Facebook's users with content are mere "vassals", including digital news sites, says one executive. Digital publishers often act as such, attuning their strategies to the platforms in the chase for clicks. After Facebook prioritised video content last year, so many sites made a "pivot to video" that it became an industry joke. It has not worked out well, as short videos are difficult to make and monetise at volume.

Publishers would be wiser to get users to stay on their own sites, so that they can profit from the relationship. Some are trying to do so with their journalism. Gizmodo Media Group, a group of tech and culture sites, has an investigative team. Vox makes in-depth explainer videos on current events. BuzzFeed regularly breaks big stories. The site holds its audience: the "bounce rate" of BuzzFeed's visitors—the share that leave after visiting one page—is 34%, which compares pretty well with 54% for the New York Times (the numbers come from SimilarWeb, an analytics firm).

Advertising still provides the bulk of revenue. But publishers are also selling things to visitors, both their own merchandise and other companies' products, on which they take a cut. The Gizmodo sites

The Vegetarian Butcher

I can't believe it's not meat

THE HAGUE

Plant-based "meat" is prompting others to bite back

THE "kapsalon" is a healthy mix of chips, melted Gouda cheese, shawarma, lettuce and garlic sauce and is a tried and tested hangover cure in the Netherlands. So naturally, a butcher's shop on the Spui, in The Hague, put it on its takeaway menu, alongside burgers and sausage rolls. As two young women walk out, tucking into their steaming kapsalons, an elderly gentleman asks how to prepare the steak he has just bought. The scene would have most carnivores fooled. For this butcher deals only in meatless "meat".

"We want to become the biggest butcher in the world without ever slaughtering an animal," says Jaap Korteweg, a ninth-generation farmer and founder of The Vegetarian Butcher. Since opening its first shop in The Hague in 2010 the company has been developing plant-based products that look, smell and taste like meat. "This shouldn't just taste like real chorizo, it should leave the same red stains on your fingers," says Maarten Kleizen, an employee, as he serves a slice.

The firm sells a variety of foods, ranging from minced meat to prawns, through 3,500 sales points in 15 countries (the bulk

of them are in Dutch supermarkets) and has annual revenues of €12m (\$14.2m). One in five sausage rolls sold in Albert Heijn, the Netherlands' largest supermarket chain, comes from the veggie butcher. Mr Korteweg says he wants to make factory farming obsolete by "seducing meat-lovers" without inflicting suffering on animals and damage to the environment by feeding livestock.

Not everyone welcomes this vision. Earlier this year two Dutch politicians from the Liberal VVD party called for a ban on meat names for products that contained no animal protein. In October the country's food authority asked The Vegetarian Butcher to rename misleading products, such as its "speck" (very similar to "spek", the Dutch for bacon) because it might confuse consumers. The topic trended on Twitter for days; sales soared.

Dutch media termed the episode "Schnitzelgate" after a similar situation in Germany, whose minister for agriculture said that "meaty names" such as "schnitzel" and "wurst" should only be legal for animal-based products. That was seen as the meat lobby reacting to a country rapidly going veggie; a tenth of Germans are now vegetarians, up from 0.6% in 1983. In Brussels lobbyists want meat to get the same protection as milk did this summer (when the European Court of Justice ruled that soy-drink producers, for example, could not call their products milk). In October New Zealand's Poultry Industry Association said packaging by Sunfed Meats, a meat-substitute firm, was misleading because its "chicken-free chicken" pictures a chicken and the phrase "wild meaty chunks".

Mr Korteweg says that while his firm threatens chicken and pig farmers, meat companies and butchers are customers and partners. He co-operates with a Unilever sausage and soup brand, Unox; conventional butchers sell his products alongside animal-sourced meat. The arguments are likely to intensify as the market for alternative meat takes root.



Carroticide

(owned by Univision) get about one-quarter of their revenue from e-commerce; BuzzFeed has started doing the same. Membership fees may be another option.

Smaller digital operations are also using a variety of strategies. The Ringer, a sports and culture site in Los Angeles, has established a niche in podcasts, on which it generates millions in sponsorship. The Information, in San Francisco, has more

than 10,000 subscribers paying \$399 a year for its technology news. At vtdigger, a non-profit site started by a laid-off journalist, dogged coverage of politics and corruption in Vermont has attracted strong readership and a mix of donations, grants and sponsorships from local businesses. There are several clear paths to long-term survival, but not to billion-dollar valuations. Expectations have indeed been readjusted. ■

The audio industry

Sound and software

PARIS

Speakers and headphones may also come to be dominated by technology giants

MUSIC lovers do not typically go to the opera to buy a speaker. But at the Palais Garnier in Paris they now can: Devialet, a local maker of high-end speakers, on November 29th opened a store in the 19th-century music venue to sell its most sophisticated product, called Phantom. Looking like a dinosaur egg, this supercomputer for sound (priced at \$3,000) is considered one of the best wireless speakers available. It also comes with a dedicated streaming service for live performances, including some at the Palais Garnier.

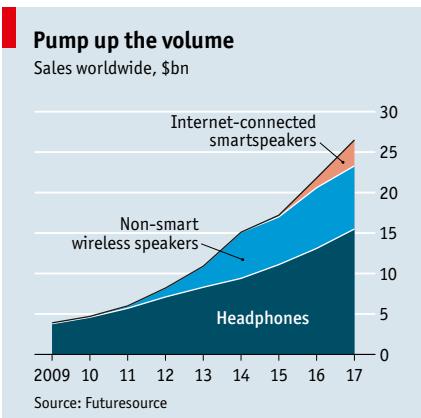
This Phantom at the opera is the latest example of how digital technology is transforming speakers, headsets and other audio devices. Once mostly tethered to hi-fi systems, they are now wireless, increasingly intelligent and capable of supporting other services. As a result, the industry's economics are changing.

Only a few years ago the audio industry was highly fragmented, says Simon Bryant of Futuresource, a market-research firm. Hundreds of brands offered their wares, both premium and basic, often with identical components. As with other device businesses, the industry was a "vertical" one: if speakers used any software at all, it was specific to the product.

All this started to change with the advent of smartphones, which made music more portable by connecting music-streaming services such as Spotify with wireless speakers. Smartphones have also given a boost to headphones, which are becoming ever more versatile, with features now ranging from cancelling out ambient noise to real-time translation.

These new possibilities have proved hugely popular: the global market for audio devices has rocketed in recent years (see chart). According to Futuresource, only about 200,000 wireless speakers were sold in 2009; this year the number is expected to be 70m. Headphones have been on a similar tear.

Smartspeakers, which were pioneered in 2015 by Amazon with the Echo, will be even more disruptive. Nearly 24m of these devices, essentially voice-controlled remote controls for everything from music to lights, will be sold worldwide in 2017, estimates Strategy Analytics, another market researcher—a number it expects to quadruple by 2022. Once households have one, they buy more to spread them throughout their homes (apparently nearly a tenth now live in bathrooms).



Smartspeakers are pushing the audio-device industry to become "horizontal". The voice that emanates from Amazon's Echo or Google's Home is not just a digital assistant, but a "platform" for all kinds of services, of which most are developed by other firms. Alexa, as Amazon's version is called, already boasts more than 25,000 "skills", as the firm calls such services. These range from ordering goods and finding a mobile phone to turning up the heating and (early next year) asking *The Economist* for the latest on any given topic. Similarly, wireless earbuds, such as Apple's AirPods and The Dash by Bragi, a startup, may become so clever that more and more people will leave them in all day, for instance to monitor their health or for constant access to a digital assistant.

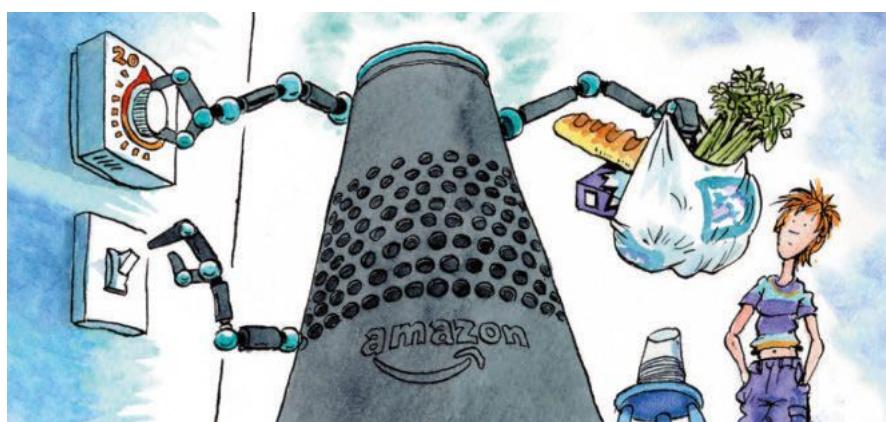
Conventional speaker firms are trying to catch up. In September at IFA, a trade show in Berlin, booths of various makers were adorned with logos of Amazon or Google, signalling that they already have or will integrate a digital assistant in their

products. But if the history of the smartphone is any guide, such platforms will turn the hardware into a commodity, with most of the profits going to the providers of software and services. Having sold 75% of all smartspeakers (at low prices that are thought to be close to the cost of making them), Amazon is now the world's biggest speaker brand. Incumbents will also have to contend with Apple, despite the delay of its smartspeaker until early next year.

The dominance of a few platforms is not a forgone conclusion, says Mr Bryant of Futuresource. More specialised ones are likely to thrive, too—like Microsoft's Cortana, which is good at understanding business jargon. But some audio firms feel the need to branch out. Sonos, which pioneered wireless speakers a decade ago, now wants to become an über-platform, integrating all voice assistants and streaming services, so consumers who like Sonos speakers have a choice. Harman, which in March was bought by Samsung Electronics, has similar plans for entertainment systems in cars.

And then there are companies which do not build their own speakers, but offer technology to enhance other products. Dolby and DTS, for instance, are busy creating software for what is called "immersive audio". Combining several speakers, Dolby's Atmos technology—first introduced in cinemas, but now available for home use—already "places" sounds in space. The next step is separate personal sound zones for each listener in a room, in effect creating invisible speakers.

So why does Devialet, which last year got €100m (\$106m) in fresh capital, think it can succeed by selling expensive high-end speakers? The answer is that it wants to be a platform, too. The speakers are mostly meant to demonstrate its technology, in the hope that other companies will integrate it into their products. The first example, launched last month, is a soundbar (a slim loudspeaker) it has developed together with Sky, a broadcaster. "If you see yourself just as an audio company," says Quentin Sannié, Devialet's chief executive, "your days are numbered." ■



Schumpeter | Capitalism for the people

What if the unwashed masses got to vote on companies' strategies?



ANGLO-SAXON capitalism has had a bad decade. It is accused of stoking inequality and financial instability. A relentless pursuit of shareholder value has led big firms to act in ways that often seem to make the world a worse place. Aeroplane seats get smaller, energy firms pollute the air, multinationals outsource jobs and Silicon Valley firms avoid tax. Some people think that governments should exert more control over private enterprise. But what if the answer to a deficit of corporate legitimacy was to give shareholders even more—not less—power?

That is the intriguing possibility raised by a new paper by Oliver Hart of Harvard University and Luigi Zingales of the University of Chicago. Their argument has two parts. First, the concept of shareholder capitalism should be expanded, so that firms seek to maximise shareholders' welfare, not just their wealth. Second, technology might allow firms to make a deeper effort to discover what their true owners want. Over 100m Americans invest in the stockmarket, either directly or through funds. It is their money at stake, but their views and values are often ignored.

Not long ago mass participation in the stockmarket was held to be an essential part of a healthy market economy—for ordinary people to back capitalism, the argument went, lots of them had to have a direct stake. In the 1960s, individuals directly owned over 80% of American shares and over 50% of British ones. Margaret Thatcher privatised British firms in the 1980s and used TV campaigns to sell shares to the public. Her aim was to bring “ownership, capital and independence” to millions of workers.

Somewhere along the way this dream has been lost. Most peoples' investments are now funnelled through investment managers (individuals directly own only about two-fifths of all shares in America and less than a fifth in Britain). A few giant money managers have a dominant voice. America Inc still has “proxy” votes, where crazy proposals can be made—but these resemble a Potemkin shareholder democracy which is really controlled by technocrats. Asset managers have defined their mission as maximising the market value of their clients' portfolios, and in turn demand that firms maximise profits.

Ever since companies were granted the privilege of limited liability in the 1850s a debate has raged about their obligations to society. In an article published in 1970, Milton Friedman, an econ-

omist, made the case that a firm's only duty is to its bottom line. That is not as callous as it sounds. Most shareholders have a mix of financial goals and ethical beliefs. The profit-hungry firm can be part of a system that satisfies both their desires. The company creates profits which can then pay for the “ethical” objectives that a shareholder has: for example, charity donations to help the poor, or taxes to pay for a government-provided safety net.

Unfortunately, as Messrs Hart and Zingales point out, this division of responsibilities does not always work. If a supermarket profits from selling machine guns to the mentally unhinged, for example, there is no action that shareholders can undertake with those profits that can mitigate the ensuing deaths. And if the government is too dysfunctional to produce coherent policies, there may be no way to offset the externalities—massive job cuts in one town, say—that profit-seeking firms create.

So sometimes the only way to maximise shareholders' overall welfare may be for the firm to look beyond profits. The authors argue that some interpretations of American law give boards of directors more room for manoeuvre here than is commonly understood. The next stage is to find out what shareholders want. Technology could help, allowing individuals to vote the shares held on their behalf by pension trustees and investment funds.

The authors envision shareholders guiding the broad direction of company strategy. They do not elaborate on the details, but imagine 100m Americans pressing a “shareholder democracy” app on their phones. Grannies from Grand Rapids and cowboys from Colorado might vote for Delta Air Lines to provide more legroom, Exxon to assume a higher carbon price when it drills for oil, IBM to move some jobs from Delhi to Detroit and Apple to pay a higher tax rate than its current 18%. It would be a plebiscitary shareholder democracy, more in tune with what many Americans think, but more dangerous, too.

There are two big risks. One is that the combined voice of tens of millions of shareholders becomes a meaningless cacophony that no board can deal with. As Andrew Carnegie, the 19th-century Scottish-American tycoon, put it: “Where stock is held by a great number, what is anybody's business is nobody's business.” The other pitfall is that shareholders manage to produce a clear enough voice, but that this voice is stupid, fickle or sinister. This is clearly possible, too. Most individuals have little idea about the technicalities of running big companies. In the investment world retail shareholders are often known as “dumb money” because of their tendency to buy high and sell low.

Shareholders' values

Just as political democracy only works with checks and balances, the same is true for shareholder democracy. Messrs Hart and Zingales suggest that for a proposal to be put to a digital vote by all shareholders, it would need the support of at least 5% to start with. Another safety mechanism would be to make the votes of ordinary shareholders non-binding. Boards would have to note them, but would not need to obey. Or people could invest through single-issue funds, which are identical to normal funds except that they guarantee to pursue a well-defined goal—for firms to pay higher wages, for instance, or to cut pollution levels.

Plebiscitary capitalism may seem far-fetched. But the company has evolved continually to deal with pressures that boil up from society over time. More participation by ordinary, individual shareholders might be exactly what capitalism now needs to restore its reputation. ■



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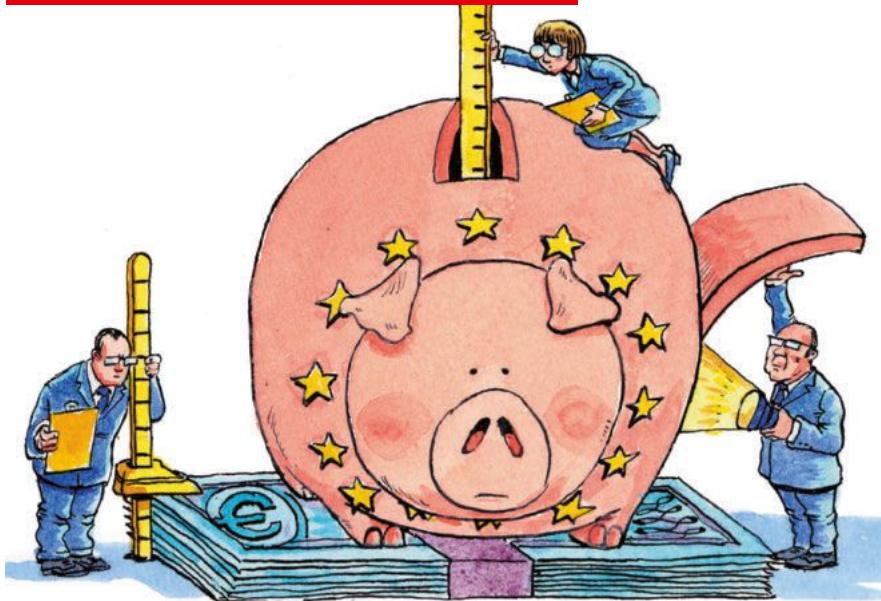
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Regulating European banks

Think of a number

Ten years after the crisis, Europe's banks face a glut of new rules

FOR those oddballs whose hearts sing at the thought of bank regulation, Europe is a pretty good place to be. No fewer than five lots of rules are about to come into force, are near completion or are due for overhaul. They will open up European banking to more competition, tighten rules on trading, dent reported profits and boost capital requirements. Although they should also make Europe's financial system healthier, bankers—after a decade of ever-tightening regulation since the crisis of 2007-08—may be less enthused.

Start with the extra competition. On January 13th the European Union's updated Payment Services Directive, PSD2, takes effect. It sets terms of engagement between banks, which have had a monopoly on customers' account data and a tight grip on payments, and others—financial-technology companies and rival banks—that are already muscling in. Payment providers allow people to pay merchants by direct transfer from their bank accounts. Account aggregators pull together data from accounts at several banks, so that Europeans can see a broad view of their finances in one place—and maybe find better deals for insurance, mortgages and so forth.

The new entrants need not only their customers' permission to take money and data from their accounts but also co-operation from their banks. They worry that banks won't play fair. Banks, for their part, have fretted that opening up their systems

may expose customers to fraud and themselves to lawsuits. On November 27th the European Commission adopted technical standards intended to balance competition and security. Although the directive applies from next month, the standards may not take effect until September 2019. Banks and their rivals will meanwhile have to rub along.

The standards demand that customers supply two out of three types of proof of identity before transactions are approved: something they know (a password or code); something they own (a card or a phone); and something they are (eg, a fingerprint). This approach is already common, though not universal, online.

To communicate with payment-services providers and account aggregators, banks have two options. They may allow them access through their online customer interfaces. Or they can build dedicated interfaces into which the newcomers can plug their applications. Almost all banks are expected to choose the latter. To guarantee fair play, they must have a fallback, in case the dedicated interface fails.

While retail banks grapple with PSD2, investment banks and asset managers have been bracing themselves for MiFID2, the refreshed Markets in Financial Instruments Directive, which takes effect on January 3rd. Intended to make financial markets more transparent—and thus, in theory, safer and more competitive—MiFID2 will

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restrict trading in securities on banks' internal venues and force more derivatives hitherto traded "over the counter" onto centralised exchanges. It also obliges banks to charge clients separately for research, rather than bundle it in with other services. Some are swallowing the cost; some are cutting analysts.

One way or another, the other three changes are all about safety. From January banks in Europe (and many other places, but not America) must apply a new accounting standard, IFRS 9, obliging them to make provisions for expected loan losses, rather than wait until losses are incurred. That is likely to knock earnings next year. Most banks surveyed by the European Banking Authority, a supervisor, said they expected profits to become more volatile. The same could happen to lending.

Floor polished?

Next, it seems that the last big bit of Basel 3, a set of global capital standards revised after the financial crisis, may finally be complete. Officials had hoped for agreement a year ago, but haggling continued. The central-bank governors and supervisors who approve the standards are due to hold a press conference in Frankfurt on December 7th. Surely, they would not bother if they had nothing to say?

At issue have been the internal models big banks use to calculate risk-weighted assets (RWAs). The lower the answer, the higher the ratio of equity to RWAs, a key gauge of capital strength, and the less equity banks need. To limit the discount from these models, Basel standard-setters proposed a floor for the ratio of banks' RWA estimates to those yielded by a standard approach, at first between 60% and 90%. American negotiators, though their banks are little affected, favoured a high floor and Europeans a low one or none; the French ➤

were the most vocal. In October Bloomberg reported that negotiators were settling on a ratio of 72.5%.

Assuming the floor is agreed on, it will, like other Basel rules, be phased in over several years. The fifth and last change to Europe's regulatory framework could take every bit as long. On December 6th the European Commission is due to propose a fortification of economic and monetary union. As part of that effort, in October it exhorted governments to complete the EU's half-finished banking union.

Although the euro area now has—belatedly—a single supervisor, housed in the

European Central Bank (ECB), and a single body to deal with insolvent banks, it still lacks a single deposit-insurance scheme, chiefly because German taxpayers do not want to be on the hook for the failings of lenders farther south. The commission hopes that the Germans can be won over, by introducing the scheme gradually and by tackling the bad loans that still burden banks in Italy and elsewhere. Both it and the ECB also want to be firmer on bad loans in future; the ECB has suggested that banks make full provision for unsecured duds after two years and secured ones after seven. The commission is also exploring the

creation of new securities, backed by pools of sovereign debt from all euro-area countries, to weaken the link between European banks and national governments.

With all this to worry about—oh, and Brexit—Europe's bankers may look enviously westward. American banks and supervisors were faster to get their houses in order after the crisis, and under President Donald Trump the regulatory tide is turning. This week Jerome Powell, Mr Trump's choice to lead the Federal Reserve, told senators that regulation was "tough enough". By now, Europe's bankers know better than to expect much sympathy. ■

Buttonwood | A lot of zeros

Investors are piling into an illiquid asset. What can possibly go wrong?

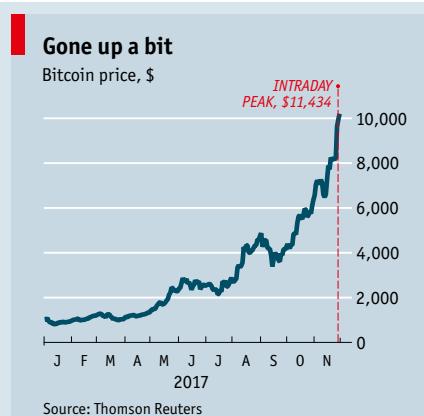
MOST money these days is electronic—a series of ones and zeros on a computer. So it is rather neat that bitcoin, a privately created electronic currency, has lurched from \$1,000 to above \$10,000 this year (see chart), an epic journey to add an extra zero.

On the way, the currency has been controversial. Jamie Dimon, the boss of JPMorgan Chase, has called it a fraud. Nouriel Roubini, an economist, plumped for "gigantic speculative bubble". Ordinary investors are being tempted into bitcoin by its rapid rise—a phenomenon dubbed FOMO (fear of missing out). Both the Chicago Mercantile Exchange, America's largest futures market, and the NASDAQ stock exchange have seemingly added their imprimaturs by planning to offer bitcoin-futures contracts.

It is easy to muddle two separate issues. One is whether the "blockchain" technology that underpins bitcoin becomes more widely adopted. Blockchains, distributed ledgers that record transactions securely, may prove very useful in some areas of finance, and beyond. The second is whether bitcoin will become a widely adopted currency in everyday life. Here the evidence is weak.

Bitcoin can be used to buy a few things. But a currency has three main functions: store of value; means of exchange; and unit of account. Bitcoin's volatility, seen when it fell 20% within minutes on November 29th before rebounding, makes it both a nerve-racking store of value and a poor means of exchange. Imagine buying an iPhone X with bitcoin in January. You would by now be cursing as the same coin could buy ten phones—Christmas gifts for the whole family.

A currency is also a unit of account for debt. Paul Mortimer-Lee of BNP Paribas, a French bank, tartly remarks: "Imagine if



you had financed your house with a bitcoin mortgage." This year your debt would have risen tenfold. Your salary, paid in dollars, euros or whatever, would not have kept pace. Put another way, had bitcoin been widely used, the last year might have been massively deflationary.

Such issues will be of minor concern to those who managed to buy bitcoin earlier in the year. They will just be delighted with the profits. But why has the price risen so fast? One justification for the existence of bitcoin is that central banks, via quantitative easing (QE), are debasing fiat money and laying the path to hyperinflation. But this seems a very odd moment for that view to gain adherents. Inflation remains low and the Federal Reserve is pushing up interest rates and unwinding QE.

A more likely explanation is that as new and easier ways to trade in bitcoin become available, more investors are willing to take the plunge. As the supply of bitcoin is limited by design, that drives up the price.

But it is worth remembering that the cost of using bitcoin is going up. Each transaction has to be verified by "miners" who need a lot of computing power to do so,

and a lot of energy: 275kwh for every transaction, according to Digiconomist, a website. In total, bitcoin uses as much electricity a year as Morocco, or enough to power 2.8m American households. All this costs much than processing credit-card transactions via Visa or MasterCard.

The miners are rewarded for their efforts by being paid in bitcoin; they are delighted by the rise in the currency's price. But some are finding ingenious ways to cut back on their energy costs; one even put computers in his Tesla car so he could mine bitcoins using its free charging stations. Much mining is done in parts of China where electricity is cheap.

There are two ways of thinking about this. One is that the eventual price of bitcoin will equal the marginal cost of mining, which may be rising but is well below the current price. The second is that institutions will not want to use the technology if it relies on such a "Wild West" process; banks are already looking at cheaper forms of blockchain technology.

Whether the investors driving the price higher are pondering all this is open to doubt. It looks like a re-run of the dot-com craze. Adverts for trading digital currencies are appearing on the London tube and celebrities have piled onto the bandwagon. As seen many times before, when lots of investors buy an illiquid asset, the price can rise exponentially.

The top is hard to call. At some point, the urge to turn all those digital zeros into cars and iPhones will prove too great. Getting out of an illiquid asset—as this week, when exchanges struggled to cope with trading volumes—can be harder than getting into it. Some remember Nathan Rothschild's remark about the secret of his wealth: "I always sold too soon."

Chinese finance

Stormy weather

SHANGHAI

A regulatory clean-up dents China's markets, but not yet its economy

IT IS the kind of company that for years was a safe bet for investors. China City Construction is big, government-owned and focused on building basic infrastructure such as sewers. But the bet, it turns out, was not so safe after all. In November China City missed interest payments on three separate bonds, after failing to refinance its hefty debts. It is one of a growing number of victims of the government's clean-up of the financial system, or what is known in China as the "regulatory storm".

The storm has been gathering strength for the better part of a year but its intensity over the past couple of weeks has caught many off-guard. The government wasted little time after an important Communist party meeting in October before taking on some of the riskier parts of the financial system. As a result, China's risk-free interest rate—ie, the yield on government bonds—has shot up. Overall, it has risen by a percentage point since the start of 2017.

For firms, even those closely tied to the state, the rise in borrowing costs has been even steeper. The yield on ten-year bonds issued by China Development Bank, a "policy bank" that finances state projects at home and abroad, has soared to nearly 5%, the highest in three years (see chart).

Rising interest rates are partly a sign of strength. An industrial recovery has fuelled a return of inflation after years of sluggish growth, and investors are pricing in rate rises from the central bank. But the jump in yields also reflects a bout of nervousness. The CSI 300 index, which comprises shares in the biggest companies listed in China, fell by 3% on November 23rd, its largest drop in 17 months.

The fear—or the hope, depending on your perspective—is that the government means business when it talks of cutting debt. Going into this year, China's leaders said their economic priority was to control financial risks. Debt is the biggest of all, having climbed from 160% of GDP to roughly 260% over the past decade. Much of it is held off-balance-sheet by banks. So the government's efforts have had two aims: to slow the rise in debt and to clarify the full extent of existing liabilities.

Its actions, though welcomed by ratings agencies, are causing market indigestion. The latest worry for investors is the central bank's proposal on November 17th for an overhaul of wealth-management products (WMPs), deposit-like instruments with relatively high interest rates that are sold by

banks. New rules would mean banks could no longer guarantee investors against losses. They would also need to price WMPs according to their current market value and do a better job of matching the duration of their liabilities and assets.

The WMP market was worth nearly 30trn yuan (\$4.5trn) at its peak, or more than a third of China's GDP. The draft rules are likely to cause it to shrink and, in so doing, to leave banks with less free cash to invest in bonds. Zhang Yu of Minsheng Securities, a local brokerage, notes that banks have until mid-2019 before the rules are enforced. But investors are not waiting. They have already started trimming their bond holdings, pushing yields higher.

Another focus for the government has been internet microlenders, lightly regulated institutions that often charge exorbitant interest rates. On November 21st officials ordered a halt in licence approvals for new online lenders. They have also sounded the alarm about the property market, vowing to stop homebuyers from borrowing funds illegally.

The question is how far the government will go. With the battle against risk so high on the political agenda, few think it will ease. A financial-stability committee, a powerful new body tasked with closing regulatory loopholes, held its inaugural meeting on November 8th. Zhou Xiaochuan, China's veteran central-bank governor, has spoken on four separate occasions in the past two months about rising financial dangers.

Yet there are signs of a pushback. Banks are said to be lobbying against the most stringent of the proposed WMP rules, arguing that forced asset sales will only cause more serious financial stress. The value of bonds in default in November was 9bn yuan, a single-month record for China.

Officials can afford to allow their regulatory storm to rage on for now. China is still enjoying sunshine: its campaign to curb indebtedness is in its early days and yet to have much negative impact on economic growth. But the market ructions of the past couple of weeks point to rougher weather ahead. ■



Bankruptcy in India

Afterlife

MUMBAI

Grim times for defaulting tycoons

A SMOOTH bankruptcy process is akin to reincarnation: a company at death's door gets to shuffle off its old debts, often gain new owners, and start a new life. Might the idea catch on in India? A first wave of cadaverous firms are seeking rebirth under a bankruptcy code adopted in December 2016. In a hopeful development, tycoons once able to hold on to "their" businesses even as banks got stiffed seem likely to be forced to cede control.

India badly needs a fresh approach to insolvent businesses. Its banks' balance-sheets sag under 8.4trn rupees (\$130bn) of loans that will probably not be repaid—over 10% of their outstanding loans. But foreclosure is fiddly: it currently takes over four years to process an insolvency, and recovery rates are a lousy 26%. Partly as a result, bankers have often turned a blind eye to firms they ought to have foreclosed on.

This is bad for the banks and worse for the economy, which has slowed markedly, in part as credit to companies has dried up. The problem festered for years, not least because banks' reserves of capital were inadequate to cover the losses that would have resulted if they had acknowledged dud loans. And bosses at state-owned banks, where most of the problems lie, feared even sensible agreements to lower an ailing company's debt burdens could be painted as cosying up to cronies.

The Indian authorities have, in stages, removed roadblocks to resolving all this. From 2015, banks were forced to acknowledge which loans were "non-performing", having spent years expertly sweeping problems under the carpet. Bank-capital levels are being bolstered (albeit with money borrowed from the banks themselves). And the infrastructure for the new bankruptcy code, which requires administrators to run firms in limbo and a new courts system, is being created from scratch.

Lenders loth to foreclose on welspring tycoons are being left with no choice; a dozen deeply distressed firms were shunted into insolvency proceedings by the authorities in June. These account for under 3% of all loans, but over a quarter of those in arrears, reckons Ashish Gupta of Credit Suisse. All told, nearly 400 companies big and small are going through the process, establishing a first batch of precedents.

To ensure that no side delays proceedings, the new code says that if creditors and borrowers cannot agree on how to revive the company within 270 days, its assets ►

► will be sold for scrap. But the assumption had been that the companies' "promoters", as India dubs founding shareholders, would find a way to stay on. Many were planning to bid for their old assets in auctions few thought they would lose, given the mass of inside information they hold.

The government has now banned any defaulting promoters from bidding, which means they will lose "their" companies to new owners. This is a startling reversal of fortunes for a clique of businessmen who have held on to companies through multiple past restructurings, and whose number includes some of corporate India's grandest names. An appeal seems inevitable; or a workaround, such as getting a friendly third party to bid on behalf of the old owners (though this is specifically banned).

Critics fret that excluding promoters will mean banks will get less money for the foreclosed assets, and so increase the bail-out burden that will ultimately fall on the public purse. Some entrepreneurs fail for forgivable reasons—in industries such as steel, commodity-price swings can upend even well-managed firms. But often promoters regard loan repayment as optional. The blanket ban on all of them may seem blunt. But it is a price worth paying to level a pitch that has long been queered in the tycoons' favour. No longer, says a banker: "I have never seen anything like it. All the promoters are scared to death." ■

Brazil's development bank

A new year's resolution

SÃO PAULO

A supersized state development bank is put on a diet

IN 2009, as Brazil was buffeted by the global financial crisis, its president, Luiz Inácio Lula da Silva, was seething. The mess, he complained, was the fault of "blue-eyed white people, who previously seemed to know everything, and now demonstrate they know nothing at all". For him the crisis was a repudiation of Anglo-Saxon liberalism and a vindication of state capitalism. Like many countries, Brazil cut interest rates and increased spending. Unlike many other governments, however, Brazil's used its state development bank, BNDES, to funnel subsidised credit to Brazil's largest companies. Thanks to cheap loans from the Treasury, the bank doubled its lending, which reached a peak of 4.3% of GDP in 2010. For most loans the interest rates were half the level of Selic, the central bank's benchmark.

The plan worked, for a while. Brazil emerged from the crisis relatively unscathed: after a short recession in 2009 the



Lula spots an Anglo-Saxon

economy rebounded with GDP growth of 7.5% in 2010. But the stimulus outlived the recovery, at an increasing cost to the taxpayer. Between 2009 and 2016 subsidies from the Treasury to BNDES totalled 116bn reais (\$48bn). Brazil's big firms became hooked on cheap credit. Some have faced allegations that they obtained the loans fraudulently. One, a meatpacking firm called JBS, borrowed 8.1bn reais from BNDES; it went on a spending spree, buying meat producers in America, Australia and Europe, and became the world's largest meatpacker. BNDES ballooned, too. It now accounts for 15% of total lending to the private sector; its balance-sheet is as big as the World Bank's.

But times have changed. Brazil is emerging only slowly from its worst-ever recession, having lost its status as an investment-grade sovereign borrower in 2015. Its public finances are enfeebled: last year it recorded a gross fiscal deficit (ie, including debt service) of 8.9% of GDP. Government subsidies are on the chopping block. BNDES currently lends at a small margin over the cost of its funds from the Treasury—a rate called the TJLP, which is set low by the National Monetary Council, a body composed of the central-bank governor and the finance and planning ministers. In September Brazil's Congress decided to replace this rate with a new one, known as the TLP, which will be set monthly by the central bank and indexed to five-year government bonds. The new rate will be introduced on January 1st and will be phased in over five years. This could save Brazil's Treasury 0.25% of GDP a year, predicts Neil Shearing of Capital Economics, a research firm.

Not everyone is cheering. BNDES's customers complain that their cost of capital will go up, threatening jobs. Raising the

interest rate is also likely to reduce BNDES's market share and so squeeze its profits, warns Moody's, a ratings agency. But the reform has been welcomed by small and medium-sized firms. Brazil's central bank is currently forced to set Selic at an artificially high level to offset the impact of BNDES's subsidised rate on the wider economy. By "making all credit in the economy sensitive to the central bank", monetary policy will become more effective, argues Arthur Carvalho of Morgan Stanley. So borrowing costs should come down for companies too small to tap BNDES (the bank does not currently offer loans of less than 20m reais).

The reform is an important advance in Brazil's government's efforts to bring public spending and the fiscal deficit under control. But it does not go nearly far enough in reducing the deficit. The country's overgenerous, unaffordable pension system costs 13% of GDP. Without reform, public spending on pensions could reach a fifth of GDP by 2060, when the number of over-65s is projected to increase from 17m now to 58m. Hopes that a pension reform could pass Congress were high until May, when Michel Temer, Brazil's president, became embroiled in a corruption scandal. Efforts to revive it have so far come to naught. Reforming BNDES is overdue. But it will take even more belt-tightening to put the country on a firm financial footing. ■

American interest rates

Yielding insight

WASHINGTON, DC

A flattening yield curve weakens the case for higher interest rates

CENTRAL bankers may control short-term interest rates, but long-term ones are mostly free to wander. They do not always behave. When Alan Greenspan, then chairman of the Federal Reserve, was raising short rates in 2005, he described a simultaneous decline in long rates as a "conundrum". His successor-to-be, Ben Bernanke, blamed foreign investments in American assets because of a "global saving glut".

Janet Yellen, today's (outgoing) Fed chair, faces a similar puzzle. Ms Yellen's Fed has raised rates twice this year, and will probably make it three times in December. In October the Fed began to reverse quantitative easing (QE), purchases of financial assets with newly created money. Despite all this monetary tightening, yields on ten-year Treasury bonds have fallen from around 2.5% at the start of 2017 to about 2.3% today. As a result, the "yield curve" is flattening. The difference between ten-►

Cheesonomics

Curd your enthusiasm

When it comes to trade barriers, cheese takes the biscuit

BEN SKAILES, a British cheesemaker, is busy as Christmas ripens demand for his Stilton. Foreigners make up a third of demand for his dairy, Cropwell Bishop Creamery. This exporting achievement is not to be sniffed at when one considers the barriers to the cheese trade.

Some are natural. Perishable food goes better with wine than long journeys. At least Mr Skailes's Stilton can survive the three-week trip to America. (His is best eaten within 16 weeks.) Softer cheeses struggle, giving American producers an advantage.

Other hurdles are man-made. Tariffs and quotas are supposed to support domestic dairy industries, and are more onerous than in other sectors. The European Union protects its dairy industry with a 34% average duty, compared with an overall average of 5%. In America it is 17%, compared with 3.5%. Stilton escapes American quotas, but full "loaves" are taxed at a 12.8% rate, or 17% if they arrive sliced. (Unprocessed foods tend to enjoy lower tariffs, to lure in jobs.) The high level of protection means that dairy disputes often loom large in trade deals, as governments scrabble for more access.

Then come technical barriers to trade. Rules vary everywhere, with different paperwork and labelling requirements. South African labels must have a larger typeface. In America, best-before dates put month and day in a different order from the British norm. Somerdale International, an export agent, helps Cropwell Bishop navigate the maze.

Some rules are justified on safety grounds. If someone gets sick, the authorities want to know where to lay the blame. America, for one, requires wads of paperwork showing where each ingredient comes from. Fall foul of local rules and a cheese can be barred altogether. Earlier this year China for weeks blocked all imports of Stilton, Roquefort, Brie and Camembert on health grounds. The

World Cheese Awards, held in London on November 17th (Mr Skailes's Stilton won a gold medal), needed special licences for some non-EU cheeses, which had to be burnt after the prize-giving.

In theory, standards encourage trade, by building trust for foreign products. In practice, they often do not. A recent study for the Vienna Institute for International Economic Studies estimated that where they applied to cheese, technical barriers, such as labelling requirements, lowered trade volumes by 6.7%. Sanitary and phytosanitary measures, imposed on health grounds, lowered them by 7.3%.

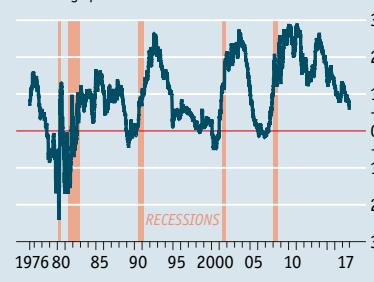
Some rules are designed to stop imitation cheeses. Try to export Brie to France, or Gorgonzola to Italy, and you will meet more lawyers than cheese-mongers. Stilton has this protection. Under European law, only six dairies in Derbyshire, Leicestershire and Nottinghamshire produce officially recognised Blue Stilton. That is one rule that protects Mr Skailes' slice of the market.



Slicely does it

Flirting with inverting

United States, government-bond spreads, ten-year over two-year
Percentage points



Source: Federal Reserve Bank of St. Louis

flation is unexpectedly high, long-term bondholders' returns are reduced, and they cannot profit from the rising short-term rates that an inflation surprise typically provokes. So part of the term premium is compensation for inflation risk.

Falling inflation risk might explain today's droopy yield curve, according to a recent note by Michael Bauer of the San Francisco Fed. Price rises have been oddly subdued this year. Despite unemployment falling to just 4.1%, inflation (excluding food and energy prices) is only 1.3% by the Fed's preferred measure. Inflation expectations, as measured by surveys of forecasters, have not fallen. But investors may increasingly see the main risk as too little inflation, rather than too much. If so, the inflation-risk premium should have fallen, and could even turn negative.

Ms Yellen seems sympathetic to such arguments. But they are not all that comforting. The Fed's justification for tighter monetary policy, in spite of low inflation, is the risk of a sudden surge in wages and prices. This risk should increase as unemployment falls. If bond markets are signalling that the risk is in fact declining, that seems to contradict rate-setters' thinking.

Other than inflation risk, the term premium is a catch-all for anything that affects yields. It is poorly understood. QE, for example, is supposed to have worked by compressing the term premium. Mr Bernanke's saving glut may have had the same effect. Both factors may still pertain. The Fed's balance-sheet has not shrunk much yet. And in recent months, Asian countries have been accumulating large holdings of foreign-exchange reserves. American yields are low, but above those in Europe, Japan and Britain, and may be a magnet for the world's savings. (That said, the dollar has fallen by about 6.5% this year on a trade-weighted basis.)

The likeliest explanation for a flattening yield curve, however, is the simplest: markets are losing confidence in the Fed's ability to raise rates without inflation sagging. Given how often the markets have been right and the central bank wrong, rate-setters would be wise to tread carefully. ■

year and two-year interest rates is at its lowest since November 2007 (see chart).

The yield curve matters. It has inverted—ie, long-term rates have dipped below short-term ones—just before each of the past seven American recessions. Such an inversion remains a long way off, but some rate-setters seem wary of the risk. In October, Robert Kaplan, president of the Dallas Fed, said he did not want the federal-funds rate to nudge up against the ten-year Treasury-bond yield. Likewise, Patrick Harker,

his counterpart at the Philadelphia Fed, warned in November that inverting the yield curve would “not be a good thing”.

As the Fed watches the market, so traders study the Fed. The yield curve reflects where markets expect its policy to head—which they might be better able to predict than central bankers themselves. But long-term rates also include the “term premium”—the reward investors require for locking their money away, and for taking the risk that their forecasts are wrong. If in-

Free exchange | The second chance

Europe's boom will not last; it had better make the most of it

“**W**HAT does not kill me makes me stronger,” wrote Nietzsche in “Götzen-Dämmerung”, or “Twilight of the Idols”. Alternatively, it leaves the body dangerously weakened, as did the illnesses that plagued the German philosopher all his life. The euro area survived a hellish decade, and is now enjoying an unlikely boom. The OECD, a club of mostly rich countries, reckons that the euro zone will have grown faster in 2017 than America, Britain or Japan. But, sadly, although the currency bloc has undoubtedly proven more resilient than many economists expected, it is only a little better equipped to survive its next recession than it was the previous one.

Europe's crisis was brutal. Euro-area GDP is roughly €1.4trn (\$1.7trn)—an Italy, give or take—below the level it would have reached had it grown at 2% per year since 2007. Parts of the periphery have yet to regain the output levels they enjoyed a decade ago (see chart). The damage was exacerbated by deep flaws within Europe's monetary union. Three shortcomings loomed particularly large. First, the union centralised money-creation but left national governments responsible for their own fiscal solvency. So markets came to understand that governments could no longer bail themselves out by printing money to pay off creditors. The risk of default made markets panic in response to bad news, pushing up government borrowing costs and adding to financial strains. In 2012 the European Central Bank (ECB) stepped in, declaring that to keep control of its monetary policy it was willing, as a last resort, to buy government bonds. Panic subsided, bond yields dropped and the most acute phase of the crisis ended.

But the euro-area economy continued to languish in or near recession through 2014 because of the second flaw. During serious economic downturns, central banks usually cut interest rates to encourage new borrowing and investing, and governments swing into action by running larger budget deficits to make up for falls in private spending. When the financial crisis first hit, the ECB, like other rich-world central banks, cut its rates to near zero; governments cut taxes and spent freely. Yet the euro area was to face unique difficulties. The ECB was constrained by its mandate—a 2% inflation ceiling (as opposed to the 2% target common elsewhere)—and the influence of the inflation-averse German Bundesbank. Not until deflation threatened could the ECB begin stimulative asset purchases, long after other central banks.

Governments were unable to compensate for this monetary-policy inertia. The ECB's promise to buy government bonds

threatened to liberate euro-area economies from the discipline imposed by markets. European leaders, and Germany in particular, sought to enforce sobriety through other means. The emergency-lending programmes negotiated with the most beleaguered economies exacted hefty budget cuts as the price. All members were bound by a “fiscal compact” that euro-zone leaders signed up to in 2012. It urged member states to keep deficits within set limits, balance budgets over the long run, and adopt plans to reduce government debt to no more than 60% of GDP. Adherence has been incomplete, but the short-term impact was that public borrowing fell sharply across the euro area between 2012 and 2016, prolonging the pain of the crisis.

European leaders still argue over how to meet the currency zone's macroeconomic needs. Emmanuel Macron, the French president, favours reforms that would allow for a euro-area budget large enough to cushion the economy against shocks, and a finance minister to oversee it. Realistically, such mechanisms are years away from agreement, let alone implementation.

Euro-Dämmerung

Happily, Europe's recovery did not wait for such reforms, but that makes them no less essential. The euro-area rebound, in its early years, relied on exports. Crisis and austerity gutted domestic spending, and led to wage-depressing levels of unemployment. So troubled euro-area economies began selling much more abroad than they were buying; foreign consumers, in effect, threw the desperate periphery a lifeline. Strong global growth still helps European exporters, but other factors add to economic momentum. The severest budget-cutting is over. And falling unemployment is buoying consumer spending—particularly in Germany, where the boom has been longest and strongest.

Growth works wonders. A bigger tax take makes deficit-reduction easier; hiring and consumer spending feed on each other. So long as moderate oil prices and strong global growth continue, Europe's economic health will improve. Unfortunately, such tailwinds cannot last forever. The third and gravest threat to the long-run survival of the euro area endures: the mismatch between the scope of its economic institutions and its political ones.

No European institution enjoys the democratic legitimacy of a national government. Crisis drove European institutional reform in areas such as bank supervision, but also concentrated power in unelected institutions like the ECB—even though the fiscal compact was negotiated by heads of government. Without new political institutions (which, in fairness, he also wants in the form of a euro-zone parliament), Mr Macron's euro-area budget and finance ministry would seem like more of the same.

The euro area is in a political bind. Among the legacies of its crisis are nationalist parties across the continent, rooted in anger at pain seemingly inflicted by unaccountable European politicians. Any move towards greater European integration lends credence to their warnings of lost sovereignty. But failure to agree on such measures raises the odds that the next downturn will be a bad one, which would also play into nationalists' hands.

A decade of pain cost Europe its ability to sell integration as a force for prosperity. If it does not use its current good fortune to remodel itself, the interlude will come to be seen in retrospect not as a moment of triumph, but as a last, missed opportunity to build a euro zone that can survive. ■

A hole as big as Italy

GDP, % change 2007–16



Sources: Bureau of Economic Analysis; Eurostat



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Commercial aviation

The electric-flight plan

Electrifying aircraft is tricky. But companies are getting serious about trying

ELECTRIC cars are clean, quiet and, it seems, the way of the future. Tesla, an American firm that has done much to help electric cars shed their museli-munching image, is struggling to meet demand for its mid-market Model 3 (though that has not stopped it announcing plans to build electric lorries as well). Volvo, a Swedish car-maker, has said that, from 2019, all its cars will be at least part-electric. Volkswagen has plans to offer battery options across all of its brands; General Motors has made similar noises. Some countries, including China, Britain and France, are mooting bans on internal-combustion vehicles, to take effect within a couple of decades.

Not all forms of transport are so easy to electrify. One of the hardest is aviation, where battery power runs up against a serious problem: weight. Kilo-for-kilo, fossil fuels contain roughly 100 times as much energy as a lithium-ion battery. On the road, that is a problem which can be designed around. For a machine that must lift itself into the sky, it is much harder to solve.

But it is not impossible. Dozens of firms are working on electrically powered planes of all shapes and sizes. Some resemble flying cars, such as those which Larry Page, one of Google's founders, is backing. Others are hovering, drone-like machines that could operate as autonomous aerial taxis (Uber is keen on these). Pipistrel, a Slovenian company, already makes a two-seater electric training plane. Another two-seater, the E-fan, has been flown by Airbus, a European aviation giant, although it re-

cently abandoned the project.

The reason for that became clear on November 28th, when Airbus announced something more ambitious. It has teamed up with Rolls-Royce, a British jet-engine producer, and Siemens, a German electricals group, to convert a small airliner into a "flying test bed" to prove the feasibility of hybrid-electric propulsion. "We are entering a new world of aviation," said Frank Anton, head of Siemens eAircraft. Electric power, he predicted, would prove to be as significant to commercial aviation as the invention of the jet engine.

Insufficient, currently

The general view in the industry is that battery technology is not yet up to building fully-electric airliners. But just as hybrid arrangements help to extend the range of some electric cars, so hybrid systems will bring electric aircraft closer to take-off.

The Airbus team plans to modify a BAE 146, which is a 100-seat regional airliner powered by four conventional jet engines (see illustration above). The first step will be to replace one of those engines with a 2MW electric unit, consisting of a fan contained in a shroud. As with a hybrid car, the fan will be powered by a combination of a battery and a range-extender, in the form of a small jet engine mounted in the rear of the fuselage and hooked up to a generator. This range extender can be switched on during parts of the flight to power the fans or to top up the battery. Because it can be run at its most efficient speed all the time,

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unlike a jet directly propelling a plane, it would be highly fuel-efficient.

Flight tests are due to begin in 2020. If they are successful, a second engine on the aircraft will be replaced. The results, the team hope, will provide enough data to design a full-on hybrid-electric airliner with 50-100 seats from scratch. Such a plane might enter service in 2030 or so.

Other planes could be in the air before then. Zunum Aero, a startup based near Seattle, hopes to have its 12-seat hybrid-electric airliner ready to fly its first passengers by 2022, helped along by investment from Boeing, an American aerospace giant, and JetBlue, a successful airline.

Such aircraft will, their designers hope, serve as bridges to fully electric planes in the future. Overcoming the weight problem will be tricky. For big planes flying long-haul routes, full electrification may never happen, although hybrid systems would reduce their fuel consumption. But design changes can help. Airbus, for instance, thinks it can blend its electric motors into the aircraft's fuselage to reduce drag. And electric power offers some advantages that offset its big drawback. One is that combustion engines are not very efficient at turning the energy in their fuel into motion. Instead, a great deal of it ends up wasted as heat. A jet engine might manage around 55% efficiency during a steady cruise at the ideal altitude. But that number could fall by half or more when taking off, climbing, landing and taxiing on the ground, which is what aircraft that fly short ➤

Volcanology and glaciology

Less ice, more fire

Why shrinking glaciers could mean more volcanic eruptions

AT THE end of the last ice age, around 11,700 years ago, Earth's climate began warming rapidly. As the planet heated up, its vast glaciers fell back. Almost immediately afterwards (in geological terms, at least) volcanic activity surged. That was nothing new. The geological record has plenty of evidence of big glacial retreats that are followed by more frequent volcanic eruptions. Glaciers, in other words, seem to suppress volcanoes, which, by the same token, flourish in their absence.

This, at least, is the case for really big climatic swings. What has been less clear is whether more modest changes in ice cover might also affect the rate of eruptions. Given that humans are busy warming the planet, and therefore shrinking the few, relatively puny glaciers that still exist, this question matters. It would be good to know if more volcanic eruptions might be another consequence of global warming. In a paper just published in *Geology*, Graeme Swindles, a geographer at the University of Leeds, suggests that it will—eventually.

The fine details of how glaciers are linked to volcanic eruptions are unknown. But volcanologists theorise that pressure is key. The idea is that the weight of large ice sheets compresses the crust and mantle below. That closes up channels within the rock through which magma travels towards the surface. It also leaves less room for surface water to make its way down into the rocks, where, as steam, it can increase the pressure within magma chambers. Remove the ice, by contrast, and those processes go into reverse.

Dr Swindles and his colleagues studied layers of ash from Icelandic volcanoes that were deposited over Iceland and northern Europe during the relatively mild period since the end of the ice age, as well as volcanic sediments from Iceland itself. Their analysis revealed an unusual period between 5,500 and 4,500 years ago when no ash from Icelandic

volcanoes found its way to Europe, and when the sediment record from Iceland suggests that no major eruptions took place. When Dr Swindles compared the volcanic record with the climate literature, he found that the absence of eruptions was preceded by a big change in atmospheric circulation patterns about 6,100 years ago. That would have encouraged Iceland's glaciers to advance. When conditions changed again a thousand years later, this time to favour glacial retreat, volcanic activity picked up after a few hundred years.

Based upon these findings, Dr Swindles argues that even minor increases and decreases in glacier cover probably do affect volcanic activity, albeit with a time lag of perhaps five or six hundred years. The modern world is already recovering from its own miniature glaciation, the "Little Ice Age", which lasted from about 1500 to 1850. Combine that with yet more glacial melt, caused this time by human-driven warming, and the centuries ahead may be noticeably fierier than those of the recent past.



Hot to trot

► routes spend much of their time doing.

An electric motor can do much better. The latest models are more than 95% efficient, so the batteries that power them would not need to match the energy density of jet fuel. Electric motors are also lighter than jet engines, which helps offset some of the weight disadvantage. And they contain far fewer parts, which means they require less maintenance, which is a big cost

in aviation.

Those are all reasons why Zunum plans to focus, at least at first, on relatively short routes, where the efficiency gains from electric motors are most significant. The idea, says Ashish Kumar, the firm's chief executive, is to serve the hundreds of small American airports that have been left behind as flights have shifted to bigger hubs. The firm's aircraft will cruise at around

550kph (340mph) and have a range of about 1,130km (700 miles). Like the Airbus machine, it would use a single small jet engine in the rear fuselage to run a generator that could power the plane's two 500kW fans and top up the batteries, which will be mounted in the wings and designed to be swapped in for fresh ones after landing. This way, at some airports, the turnaround time could be as low as ten minutes.

The aircraft's range, says Dr Kumar, should increase over time. For batteries have another advantage over fossil fuels: as a relatively underdeveloped technology, they still have plenty of room left for improvement. As production ramps up, led by the car and electronics industries, battery capacities are increasing and prices are falling.

This week, for instance, Samsung Electronics, a big South Korean firm, said that by incorporating graphene—an ultra-thin form of carbon—into a lithium-ion battery, it had managed to boost its energy capacity by 45% and greatly decrease the time needed for a recharge. Many other new battery chemistries are being developed. One promising idea is a solid-state lithium battery, which replaces the liquid electrolyte of current cells with a solid substitute. Besides offering much higher energy densities, such batteries should also be cheap to mass produce. Those trends, thinks Dr Kumar, would allow his aircraft to increase its range to around 2,400km by 2035, and perhaps even ditch the on-board generator.

Combining all these benefits and drawbacks into a single figure is tricky. Paul Ereminko, Airbus's chief technology officer, says a single-aisle hybrid electric airliner would be "safe, efficient and cost-effective". Zunum's Dr Kumar is prepared to go further and talk numbers. For airlines, the important figure is the CASM—cost per available seat mile. This is obtained by dividing operating costs by capacity, measured as the number of seats in an aircraft multiplied by miles flown. Zunum claims that its plane will have a CASM of 8 cents. Oliver Wyman, a firm of aviation analysts, reckons that the average for American airlines in 2016 was 11 cents.

And like electric cars, electric aircraft would offer other benefits that are worth having, but harder to quantify. They would be quieter than jet-powered planes, which may be attractive for airports near big cities. They would be cleaner too, and become more so as more electricity is produced from low-carbon sources. Sceptics doubt the weight problem can ever be properly overcome; cynics suspect that these projects are motivated by PR. But few people predicted the pace of electrification in other areas. If electric aircraft can offer faster door-to-door journeys avoiding crowded hub airports and provide cheaper fares at the same time, then air travellers will be happy for the sparks to fly. ■

Synthetic biology

Life is a six-letter word

A lab-grown bacterium features two new letters in its genetic alphabet

ALL life on Earth uses the same four chemical letters, known as bases, to store genetic information in the form of DNA. Three bases form a codon, a genetic "word" that represents one of 20 natural amino acids. A string of codons can be read by the machinery inside cells and turned into long chains of amino acids. These chains fold up into proteins, which carry out many of the innumerable jobs necessary for life.

Earlier this year Floyd Romesberg of the Scripps Research Institute in La Jolla, California, and his colleagues unveiled an engineered organism that does things rather differently. Their bacterium stores information using a six-letter genetic alphabet comprising the four usual bases (A, G, C and T, or adenine, guanine, cytosine and thymine) plus two artificial ones called NaM and TPT3.

In a paper published this week in *Nature*, Dr Romesberg and his colleagues go a step further, by describing how they have coaxed their bacterium into making proteins containing amino acids that are not found in nature. Each unnatural amino acid to be inserted is represented by a novel codon that includes one of the team's synthetic bases. In other words, their bacterium can quite happily read an entirely new, human-created extension to the standard genetic code, and use the instructions to produce proteins that no organism naturally makes. The hope is that one day this

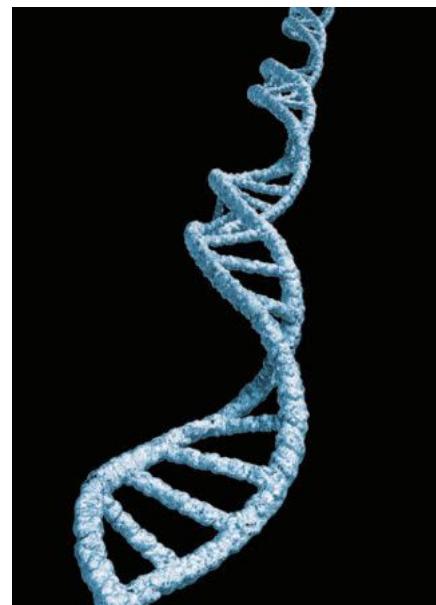
method could be used to make new drugs, polymers or catalysts.

To make their bug, the researchers had to find molecules that could serve as their artificial bases. The four natural bases in DNA pair up in a specific way: guanine binds to cytosine and adenine to thymine. Double-stranded DNA is held together by the interactions between thousands of bases pairing up with their partners on the opposite strand. The binding rules mean that when the strands separate during cell division it is possible to construct new copies of the DNA using the existing strands as templates. The team screened thousands of molecules to find two that would pair up and be copied as faithfully as natural ones.

They then inserted into their bacterium a gene (made from the four standard bases) that encodes a transport protein (found in *Phaeodactylum tricornutum*, an alga), which allows the bacterium to ship the new bases across its cell wall. In earlier work, the scientists showed that their engineered bug can incorporate the two artificial bases into its genome, and will happily copy DNA strands containing them when it reproduces.

Three more steps were necessary, however, before the bacterium could actually produce the new proteins encoded by its novel bases. To make proteins, cells first transcribe a piece of DNA into another long polymer called messenger RNA (mRNA). As its name suggests, this is the stuff that carries production instructions to the ribosomes, the cellular factories where proteins are assembled. The team thus needed to make mRNA versions of the two synthetic DNA bases.

Once messenger RNA arrives at the ribosome, yet another chemical, called transfer RNA (tRNA), gets involved. Its job is to carry the required amino acid to the ri-



Four become six

bosome and attach it in the correct place. At one end of this molecule is a triplet of bases that allow it to recognise a particular codon. Its cargo is attached to the other. The cell's tRNAs had to be modified to recognise the novel codons. And the enzymes that load amino acids onto pieces of tRNA also needed tweaking, to be able to cope with the unnatural amino acids that are the ultimate point of the exercise.

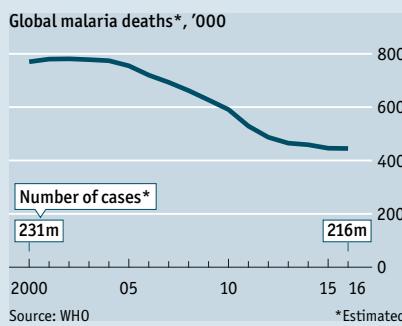
To demonstrate that all this had worked as planned, the team instructed their bacterium to make a modified version of green fluorescent protein (GFP). That is a molecule found naturally in jellyfish, but which is now widely used to tag other molecules for study since, as its name suggests, it fluoresces under the right sort of light. In their first experiment, they showed that an unnatural codon (specifically A-NaM-C) could be used to insert a single molecule of serine, a natural amino acid, into GFP. In two further experiments they tried inserting first one, and then another, artificial amino acid into GFP. The artificial amino acids they used resembled natural ones but carried an additional chemical group, which allowed the researchers to identify them. In both cases, they found that more than 95% of the protein produced by the bacteria contained the synthetic building block in question.

As a next step Dr Romesberg hopes to extend the bacterium's genetic vocabulary. The two new bases mean 152 more codons are available to represent non-natural amino acids. Proteins made with synthetic ingredients should be more easily tailored to have desirable therapeutic properties (to be longer lasting, for example, or more powerful) than the natural sort. Synthorx, a biotech firm based in La Jolla which Dr Romesberg founded in 2014, was set up to explore exactly such possibilities. ■

The war on malaria

MALARIA has been a scourge for most of history. In recent years, a good deal of progress has been made against the disease. But, as the World Malaria Report 2017, published on November 29th by the World Health Organisation, explains, that progress seems to be tailing off. The reason is unclear. Fingers are, however, being pointed at a decline in a technique known as indoor residual spraying (IRS). This involves coating the interior walls of buildings in malaria-prone areas with insecticide, to kill mosquitoes that land on them. The report says that the proportion of people at risk of malaria who are protected by IRS has fallen from 5.8% in 2010 to 2.9% in 2016. Again, it is unclear why. It may be an unintended consequence of the sensible policy of rotating, over the years,

the insecticides used for IRS. This helps suppress the evolution of insecticide-resistance in mosquitoes. But it often means replacing conventional pyrethroid insecticides with more expensive alternatives, which some people cannot afford.



Medical diagnosis

Follow your nose

A new gadget that sniffs a patient's breath for diseases

HIPPOCRATES, the father of medicine, was known to have used smell as an aid to his work. Generations of doctors followed suit. Syphilis, for instance, is thought to have a characteristic odour; the smell of rotting apples suggests diabetes. Today, things are more sophisticated. All sorts of volatile organic compounds (gases, known as VOCs, that are given off by living organisms) have been identified, in laboratories, as markers of specific diseases from breast cancer to cholera. A paper reported on a "breathprint" for malaria earlier in the month. But despite all this knowledge, a "breathalyser for disease" has stubbornly failed to materialise.

The barrier, as so often with new diagnostic tools, is not whether such things are technically possible, but whether they can be proven to work reliably and usefully when used by doctors. Owlstone Medical, based in Cambridge, thinks it has developed just such a gadget. Its breath analyser is the subject of several big trials. One, called LUCID, is recruiting 4,000 patients across Europe to develop a test for the early detection of lung cancer—a disease that is often diagnosed too late to treat. Another, in collaboration with the Warwickshire NHS Trust, is attempting the detection of early-stage colorectal cancer in 1,400 people (existing screening methods are successful only 9% of the time). Cancer Research UK, a charity, is evaluating the breathalyser for early detection of a laundry list of other cancers (specifically bladder, breast, head and neck, kidney, oesophageal, pancreatic, prostate, and brain).

Nor is it just cancer. Owlstone has several deals with drug firms. One, signed on November 27th with GlaxoSmithKline, aims to use the breathalyser to see which patients are responding to treatment for chronic obstructive pulmonary disease. A smaller firm called 4D Pharma is using the device to find out more about a patient's microbiome—the legions of bacterial hangers-on which every person carries—in order to match drugs to diseases.

One reason Owlstone's device has generated such interest is that it has a documented record. The basic technology has been in use for many years, detecting chemical warfare agents for military customers. In the medical version, breath is exhaled across a sensor which ionises the VOCs, causing them to gain an electric charge. The molecules are then sorted according to how fast they move through an

Repairing roads

A hole in one

Potholes are the latest problem to be felled by sensors and algorithms

IN THE grand scheme of things, potholes may seem like a trivial problem. But tell that to the many mayors and local politicians whose success is judged by their ability to keep roads free of them. One such, Alfonse D'Amato, an American politician, was nicknamed "Senator Pothole" by his grateful constituents.

Most potholes start as small cracks in a road's surface, which allow water to seep in. In winter, when the water freezes, it expands, widening the crack. If the water repeatedly thaws and refreezes, the hole can grow quickly, especially since cars will worsen the damage as they drive over it. Small potholes are a nuisance; big ones can damage cars, and even cause fatal accidents.

Better, then, to fix them while they are still small. In practice, that is tricky. In America, for instance, both state and federal governments find potholes by manually examining video footage of the country's 4.12m miles of roads. That is both expensive and laborious. Officials in Kansas City have come up with a better idea. As Bob Bennett, its chief

innovation officer, describes, the city is using a mix of sensors and computer algorithms to work out where potholes are most likely to form. Mr Bennett reckons his new system can anticipate potholes with a success rate of about 85%. Having a list of likely trouble spots means less need to spend money on surveillance, which allows the city's road-maintenance budget to stretch about 30% further than before.

Kansas City's innovation was borne of necessity, says Mr Bennett. Like many cities, it is strapped for cash. Its road-maintenance budget is enough to repair about 4% of the city's 6,400 miles of roads each year, but that is far short of the roughly 10% that actually need fixing. So, in collaboration with Xaqit, a small firm based in Chicago, Mr Bennett put cameras onto traffic-light poles and buried pressure sensors into the road across the 51 city blocks with the heaviest volume of traffic. Xaqit combines data from those sensors with meteorological information such as temperature, precipitation and the like. That stew of data is seasoned further with information such as the date on which the road was last repaired, the type of asphalt used, whether the road lies on a bus route, and whether it has proved prone to potholes in the past. The scheme has been so successful that Mr Bennett hopes to extend the sensors and the statistical model to the entire city.

The next step is to combine such systems with data provided by cars themselves. A number of firms, including Ford and Jaguar Land Rover, are developing ways of using forward-facing cameras (which are increasingly common on new cars) to detect potholes, in order to adjust the car's suspension before it hits them. Given that such cars will also be connected to the internet, they could pass such data on to local highway-maintenance departments. Senator Pothole retired in 1999. Automation may do his successors out of a job.



Holey grail

oscillating electric field. The result is a chemical fingerprint, or "breath biopsy", with no chemicals, needles or reagents necessary.

The details are, inevitably, trickier. For one thing, everyone's breath is different, so the device must weed out such natural variation if it is to reliably identify the tell-tales of sickness. But if the trials are successful, the benefits could be big. Widespread screening could help spot

many diseases whose symptoms take time to develop. Doctors in Britain are experimenting with offering CT scans to supermarket shoppers with a history of smoking, who are therefore likelier than most to be harbouring undetected lung cancer. But CT scans are expensive, and deliver a substantial slug of radiation. Breath biopsies are cheap, and free of risk. If they can prove their worth, they will be a breath of fresh air for diagnostics. ■



Islamic State

Captive of the caliphate

Nadia Murad's courageous account of her time as a sex slave of Islamic State is horrific and essential reading

THIS is a disturbing book. Many readers will find parts of it hard to stomach. But anyone who wants to understand the so-called Islamic State (is) should read it. The jihadists who until recently controlled much of Iraq and Syria hit on a recruiting technique that was as crude as it was ingenious. They urged their fighters to capture and keep sex slaves—and convinced them to feel virtuous about it.

Nadia Murad was one of those slaves. Jihadists came to her village in Iraq and slaughtered all the adult men and the women they deemed too old to rape. The victims included Ms Murad's brothers and probably her mother—she is still not sure. Ms Murad, then 21 years old, was taken to a slave market in Mosul. ("When the first man entered the room, all the girls started screaming.")

She was sold to a judge, a thin, soft-spoken man whose job was to have people executed for trifling offences. He raped her every day, and beat her when he was displeased with the way she cleaned the house, or when he had had a hard day at work, or when she kept her eyes closed while he was raping her.

Even as he inflicted grotesque cruelties on her, he explained that what he was doing was just and righteous. Is had published rules explicitly stating that captured infidels were property and could be raped with a clear conscience. Ms Murad was a Yazidi, a member of a small religious mi-

The Last Girl: My Story of Captivity, and My Fight against the Islamic State. By Nadia Murad and Jenna Krajeski. Tim Duggan Books; 306 pages; \$27. Virago; £18.99

nority that the jihadists particularly despised. They thought it their duty to exterminate this ancient faith through murder and forced conversion.

"You're my fourth *sabiyya* [slave]," [the judge told Ms Murad]. "The other three are Muslim now. I did that for them. Yazidis are infidels—that's why we are doing this. It's to help you." After he finished talking, he ordered me to undress.

Readers will find the jihadists' reasoning as baffling as it is odious. On the one hand, the judge said he was allowed to enslave Ms Murad because she was not a Muslim. On the other hand, he forced her to "convert" to Islam—ie, he ordered her to recite the *shahada*, the Muslim profession of faith, or die—and then he continued to treat her as a slave anyway. He told her that it was pointless to escape, because her male relatives would kill her for no longer being a virgin, and for having converted.

Ms Murad tried to escape anyway. The first time, she was immediately caught. The judge punished her by letting his guards gang-rape her. Then he sold her to another jihadist.

She escaped again, and this time she

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had better luck. After dark, she ran into a poor neighbourhood of Mosul and banged on a door more or less at random. The Sunni Arab family inside made a split-second decision to help her, despite knowing that it might cost them their lives. They bought a fake identity card for her and smuggled her out of Mosul in a taxi, with Ms Murad posing as the wife of one of their sons. At one roadblock, she saw her picture hanging there—a "wanted" poster for a runaway slave. However, she was wearing a *niqab*, and the jihadists at the checkpoint were reluctant to insult a fellow Sunni Arab by making his wife expose her face, so she was not recognised.

She escaped to Kirkuk, and thereafter to Germany. She now tours the world bearing witness to is's barbarity, and urging the International Criminal Court to prosecute its leaders for the attempted genocide of her people.

There is hope in Ms Murad's story. The caliphate has failed. In recent months its fighters have been driven from most of the territory and all the major population centres they once controlled. Their vision and methods were so ghastly that many of those they expected to support them decided not to. In one telling example, Ms Murad says her sister-in-law escaped from slavery because her captor's wife was weary of his abuse of Yazidi girls and called an American air strike down on him.

Yet it is hard to be cheerful. Ms Murad is alive, but many of her family are not. Her young nephew, who was captured and brainwashed by is, used to call and threaten her. The Yazidis have set aside their own traditions and welcomed back thousands of young women who are no longer virgins. But the jihadists have set a horrifying precedent: that zealots can raise an army by telling young men that their most savage impulses are holy. ■

Women and Boko Haram

Both sides of the coin

Women and the War on Boko Haram: Wives, Weapons, Witnesses. By Hilary Matfess. Zed Books; 288 pages; \$24.95 and £14.99

ON APRIL 14th 2014, militants from Boko Haram, a group of Islamic extremists, snatched 276 schoolgirls from their dormitories in north-east Nigeria. The taking of the "Chibok Girls", as they became known, was unplanned (the insurgents had reportedly meant to grab food and a brickmaking machine). But the heist catapulted a little-known conflict to international attention. The #BringBackOur-Girls campaign led by the girls' parents and activists had the resonance needed to go viral: young, innocent and mostly Christian girls forced to convert to Islam by violent jihadists. Boko Haram knew the girls' propaganda power too. A video it released in 2014 showed more than 100 swathed in gloomy hijabs, chanting prayers.

The Chibok Girls became symbols in other ways. Some escaped, others were let go after negotiations and more than 100 are still captives. Those escapees given scholarships to study in America were made by their benefactors to talk endlessly about their abduction for fundraising appeals. The kidnap also allowed Nigeria's incompetent army to strut as heroes on a rescue mission (though the army has not directly rescued any of the girls).

It also obscured a much bigger problem. More than 2,000 women were abducted by Boko Haram between the beginning of 2014 and spring 2015, according to Amnesty International, and many more since. A majority of Boko Haram suicide-bombers

have been female, many of them girls coerced or brainwashed into their missions.

Hilary Matfess, a doctoral candidate at Yale University, adeptly dismantles stereotypes and myths in her new book, "Women and the War on Boko Haram". That war has displaced up to 2.1m people and killed more than 30,000 since 2011. Not all the women involved are victims. Many decided to marry into the group, often against their parents' wishes. In a region where just 4% of girls finish secondary school and many women do back-breaking farm work, life as a stay-at-home Boko Haram wife receiving Quranic education can appeal. "There was 100% better treatment under Boko Haram," a commander's wife who had been "rescued" by the army told Ms Matfess. "There were more gifts, better food and a lot of sex that I always enjoyed."

Uncommonly for an armed group, Boko Haram's leaders purportedly forbid their soldiers to commit rape, outside of marriage at least, so many women have been forced to wed their captors. But here Ms Matfess provides valuable context: more than half of women in northern Nigeria marry by the age of 16, and marital rape is not illegal.

Meanwhile, women escaping the jihadists have often fared no better. Nigerian soldiers burn villages cleared of Boko Haram (ostensibly to stop looting), and have been accused of killing men and forcing women to become their wives. Camps for those displaced by the war are rife with abuse, with repeated reports of rape.

Ms Matfess is best when weaving the stories of women with analysis of Boko Haram and Nigeria's gender politics. But her argument for "gender-sensitive programming" in the humanitarian response feels less than equal to the enormous task. Nonetheless, hers is a welcome contribution to a narrative that has been dominated by oversimplified symbolism. ■



Some of the luckier ones got away

German fiction

A year in the madhouse

Insane. By Rainald Goetz. Translated by Adrian Nathan West. *Fitzcarraldo Editions*; 352 pages; £12.99. To be published in America in May 2018; \$20

BEFORE Rainald Goetz became a writer, he trained as a doctor and worked in a mental hospital. His first novel, "Insane", published in Germany in 1983 but only now translated into English, draws on this experience. Raspe, the novel's hero, is Mr Goetz's alter ego—an idealistic, ambitious young doctor starting his career on a psychiatric ward in Munich. Soon disgusted by his failure to help his patients and by his inability, in his hunger for success, to withstand the dehumanising logic of the place, Raspe himself descends into madness. He escapes, idealism shattered, by taking an unspecified job in "culture" and throwing himself into Munich's punk-era nightlife.

The novel is split into three parts: a collage of the rambling voices of the book's characters; an account of Raspe's year in the "madhouse"; and a section on his life after psychiatry. The second, with its unsparing depiction of the grim conditions and inhumane treatment of patients on the ward, is the strongest. Raspe walks into work to find "WallsFloorsWindowsTables ...smeared black with shit" by a patient. He agrees to "lend" a colleague one of his patients for a lecture. Raspe ends up watching in horror as the man, reduced to "nothing more than a pair of house shoes" by his depression, is subjected to the "merciless booming penetrating word thunder" of the professor and the "silently flashing gazes" of his students.

Adrian Nathan West has managed an impressive translation of Mr Goetz's voice—a relentless staccato that can border on the manic, such as when a patient obsessed with counting goes through endless thought-loops: "argument, then counter, then counter-counter, counter, counter-counter, counter-counter-counter".

This language accounts for a lot of what makes the book stick in the mind. The story loses momentum as Raspe quits his job to drift around the cultural scene of the 1980s. The digs at German intellectuals, which made Mr Goetz notorious at the time, now look parochial. But his eloquent depictions of human misery, and his frustration with the seemingly impossible task of helping those who appear beyond help, continue to resonate. After all, mental-health provision is still inadequate everywhere, and nobody has yet found an answer to the question that drives Raspe to madness: "Who even knows how to live?" ■



America's economy

How to get it back

The Captured Economy: How the Powerful Enrich Themselves, Slow Down Growth, and Increase Inequality. By Brink Lindsey and Steven Teles. Oxford University Press; 232 pages; \$24.95. To be published in Britain in December; £16.99

PITY the Washington wonk at this moment. America's political dysfunction looks forbiddingly irreparable, its government implacably hostile to expertise. Amid the gloom, some scholars still look to chart a course towards a healthier politics. "The Captured Economy", by Brink Lindsey and Steven Teles, sketches a plausible route out of the wilderness, albeit one that may struggle to find an audience in the corridors of power.

Their book is in part a blueprint for political realignment. For roughly a decade now Mr Lindsey, who is vice-president of the Niskanen Centre, a think-tank, and Mr Teles, a professor of political science at Johns Hopkins University, have sought to nurture understanding between conservatives of a free-market orientation and progressives. Their book is a guide for members of this "liberalitarian" tribe. Cooperation between Republicans and Democrats is frustrated by their quite different views of the role of government. The left sees the state as a means to reduce market inequities, while the right sees government redistribution as a growth-sapping anchor. Yet America's economy is now impaired by policies which both reduce growth and increase inequality. There is scope to satisfy left and right alike, if only politicians could see beyond the battle lines of partisan conflict.

The authors focus on policy failures

created by rent-seeking. To an economist, a rent is excess, undeserved income resulting from barriers to competition. All too often rents are the result of successful attempts by firms to rig the rules of the marketplace in their favour. Rent-seeking seems to have grown worse in recent decades. America's economy is not just weaker and less equal than it used to be; it is also less dynamic. Profits have grown and become more concentrated, indicating a lack of competitive vibrancy. Of the firms that enjoyed returns on invested capital of 25% or more in 2003, 85% were still earning returns that high a decade later.

The authors put forward four case studies to illustrate the choking spread of rent-seeking behaviour. Implicit and explicit government subsidies to the financial industry enrich bankers and sow the seeds of crisis, for example, but have done little to boost growth. Increasingly strong intellectual-property protections have not unleashed a torrent of new ideas, but have instead swelled the earnings of top firms, which wield their patents and copyrights menacingly at would-be innovators. The cost to negotiate reams of licence agreements, and the risk of lawsuits, can stymie the most determined of entrepreneurs. Analyses of occupational licensing and land-use rules turn up similarly skewed policies: they benefit those already on top at the expense of society as a whole.

To loosen the grip of the rent-seekers requires a more deliberative politics. Narrow interests triumph in part because the windfall they enjoy from their politicking gives them ever more incentive to organise and to press their case publicly. The costs of bad policy are, in contrast, spread across the public at large, making it harder for them to organise. As a result, leaders often hear only one side of the policy story.

Philanthropy could help fix this, Messrs Lindsey and Teles argue, as efforts to reform environmental and educational policy show: in these cases passionate campaigners made headway in the face of powerful political interests. But even better would be to "give government back its brain". Since 1980, cost-cutting has shrunk congressional staffs and government information agencies like the Congressional Research Service. As a result, legislators have come to rely ever more heavily on research and analysis produced by interest groups. America's government should invest in a well-paid, qualified civil-research bureaucracy, which could provide a neutral benchmark against which industry claims could be judged.

It is an attractive, pragmatic proposal. Sadly, America's current leadership has little regard for government experts, and has indeed worked to undermine bastions of independent analysis. There is a risk that America's institutional rot is too far advanced for mere deliberation to help. ■

American music

Railway therapy

Gabriel Kahane's post-election travels around America inspired a song series

PLANES are practical, buses are cheap and cars grant freedom. But trains are for romance. A century after America's railway heyday, the country's ageing trains still enjoy an anachronistic glamour. Few people are immune to the charms of a sluggish, traffic-free chug across states, with the countryside unfurling panoramically. At a dark or uncertain time for the country, a long rail journey from one coast to the other may even inspire some patriotism.

Such thoughts helped spur Gabriel Kahane, a 36-year-old singer-songwriter, to take to the rails the morning after the presidential election last November. Feeling "increasingly imprisoned by my own digitally curated liberal silo", he was eager to leave behind his mobile phone and spend time with the kinds of Americans he never meets while shopping for quinoa in his Brooklyn enclave. Mr Kahane ultimately spoke with between 80 and 90 people over the course of his two-week, 8,980-mile trip, during which he slept and ate on the train. The effect, he says, was therapeutic, "a kind of salve". It also made possible a kind of cross-cultural engagement that he is sure he will never have again.

When Mr Kahane began his journey, he had already written 15 or 16 songs for a follow-up to his critically acclaimed album from 2014, "The Ambassador". But he found himself casting these tracks aside in favour of new songs about his trip and the people he had met. "I'm glad that I did the dumb career thing and kept writing," he says. These works now make up "8980: Book of Travelers", a series Mr Kahane will ►



He's come to look for America

► perform in a premiere at the Brooklyn Academy of Music from November 30th to December 2nd. His one-man show will then travel to Los Angeles, Michigan and Paris in 2018, and he will release an accompanying album in the spring.

Mr Kahane's work is hard to classify. A charismatic performer, he is equally at ease in hipster bars and Carnegie Hall. His classical training (his father, Jeffrey Kahane, is a pianist and conductor) lends an inventive lushness to his compositions, which he layers with writerly lyrics delivered with a disarming emotional authenticity. For this performance it is just Mr Kahane, his piano and some video projections of his route as seen from a train window. Offering observations and recollections between songs, Mr Kahane shapes this series into a larger narrative about travel and discovery—"about crossing over into the unknown".

One song, "Baltimore (Jason)", is about a soldier who returns home to pay his respects to an old friend who has just died. Another, "The Dining Car (Monica)", is about a black woman who is taking the train to Tupelo because her two sons did not want her to drive overnight through Mississippi ("Cause they don't need a

hood or a cross or a tree"). "Model Trains (Shannon & Michael)" is about a man who becomes remote and unfamiliar to his wife and children after a sudden and incapacitating accident. What might sound schematic instead feels poetic. Mr Kahane's mosaic of stories reveals a country that is far more complex than the binary categories of the Twittersphere let on.

"The failure on both sides feels like a failure to listen," he says. The new project is meant as a corrective. "My hope is that audiences will empathise with these characters, particularly with those they don't think they should be empathising with." ■

Johnson | Buzzy and effervescent

Young people online may look as though they write without rules. They don't

OMG, the kids and the internet are ruining the English language, amirite? The sentiment is so common that it hardly bears a reply, except maybe "meh". There is certainly plenty of terrible writing on the internet, plagued by indifferent spelling, punctuation and grammar and a lack of any attention to clarity. There is also lots of brilliant writing online. It is difficult to prove that digital technologies are actually making people into worse writers. It is likely that the world is just seeing more unfiltered thoughts written down than at any other time in history. People are not writing worse so much as writing and publishing far more.

But the internet is changing language. Words, phrases and new ways of playing with grammar are coming and going faster than ever before. Older generations have been complaining about the state of young people's writing since a teacher of Sumerian complained about his charges 4,000 years ago. ("A junior scribe...does not pay attention to the scribal art.") But language really is changing at a dizzying rate today, thanks to the speed with which innovations spread online.

This makes a book about language in the internet age a dicey proposition. It risks becoming dated in the lag between writing and the time the book hits the shelves. It also probably makes for a short shelf-life. But Emmy Favilla has nonetheless written "A World Without 'Whom'" about her experiences as copy-chief of BuzzFeed. Famous for celebrity news, quizzes and listicles ("39 Pretty Gross Things All Couples Feel *Slightly* Guilty About"), BuzzFeed has also got into serious news, hiring its editor-in-chief from Politico and breaking political stories. But cleverly distracting clickbait remains its stock-in-trade.

Ms Favilla's opening paragraph will



make traditionalists cringe: "A world... without whom is the place I'd like to spend my golden years, basking in the sun, nary a subjunctive mood in sight, figurative literallys and comma splices frolicking about." (*The Economist* disagrees on all counts.) The book goes on in this vein, ranking the standard punctuation marks from 13 to 1, BuzzFeed-style. (The apostrophe, "just kinda basic", is in last place and the exclamation mark at number 1.) The pages are peppered with "lol" and emoji.

This may be all the proof some people need to conclude that the internet and the youth are going to be the death of English. And yet through the bulk of the book, Ms Favilla does something surprising: she offers guidance, opinions and very often, hard and fast rules about language. She frequently cites BuzzFeed's own language polls, in which tens of thousands of readers enjoy expressing their linguistic views. Those readers are more conservative than

you might think. On figurative "literally", 39% vote "nooooo", 40% vote "a little overused, but...not a disaster or anything" and just 21% "no problem!"

To some traditionalists this may be surprising. Doesn't the modern era mean no rules at all? Hardly. Language still has rules, and BuzzFeed's writers, editors and readers care about them. It is simply that the rules are more variable, and changing faster, than many people realise. The kids hardly capitalise or punctuate in their text messages, but when they write for school (or for publication) they know without a rap on the knuckles that different rules apply. And Ms Favilla is there to enforce those rules for BuzzFeed, alongside how to spell, punctuate and capitalise "yaaass", "cray-cray" and "Bernie Bros" (look them up, if you must).

Curmudgeons would dismiss these as hardly real words, much less deserving of a style entry. But the point is that the language of the young is not random or careless. (Ms Favilla is particularly obsessive about hyphens and dashes; being called Emmy, she even has a tattoo of the proof-reader's mark for an em-dash behind her ear.) Young people want to be clear and entertaining, just like anyone else. Ms Favilla knows that readers can abandon BuzzFeed any time they like if the writing is no good. It is just that what they find good will often perplex their elders.

Take "Latinx"—a replacement for the masculine "Latino", and purportedly an improvement on the earlier "Latin@", which cleverly combined "Latino" and "Latina", but which reinforced the notion that there are only two genders. Writers aiming for a classic style can reject this—like so many other BuzzFeed-era neologisms—as ugly or unnecessary. But they cannot say that the young people simply don't care.

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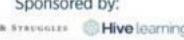

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The Government of BURKINA FASO was granted a loan from the Kuwait Fund for Arab Economic Development (KFAED) and the Saudi Fund for Development (SFD) to finance the Support Program for Health Development of the Regions of Plateau Central and Centre Sud (PADS/PCCS). It is expected that part of the proceeds of this loan will be used to carry out the planned payments under the construction contract of the Regional Hospital (CHR, abbreviation in French that will be used in the rest of this document) of Manga. All tenderers from eligible countries as defined in the Rules of Procedure for the Procurement of Goods and Works are eligible to compete.

1. The Ministry of Health, represented by the Director of Public Procurement (DMP) informs the civil engineering companies that a prequalification open to the International Call for Bid for the execution of the construction works of the Regional Hospital Center (CHR) of MANGA is launched by the Government of Burkina Faso who stands as the Client.
2. The award of the contract will be conducted by International Bid with pre-qualification according to the procedures of the Donors (KFAED and FSD) and open to all eligible candidates as defined below:
 - » Companies originating from the member countries of the Kuwait Fund for Arab Economic Development (KFAED) and the Saudi Fund for Development (SFD) and meeting the following criteria :
 - i. they are started up or established in a member country ;
 - ii. their place of business is located in a member country ;
 - iii. they are owned more than 50% by one or more companies located in one or more member countries (these companies shall also meet the criterion of nationality in relation to those countries) and/or nationals of those same member countries
 - iv. at least 80% of all persons required to perform services under the contract to be performed in the country where the goods and services are to be provided or which are directly employed by the company or by a subcontractor are nationals of a member country.
 - » However, a joint venture of these companies with others who are not nationals of one of the member countries of the KFAED and/or the SFD will be allowed provided that the firm of the member country of the KFAED and/or the SFD ensures more than 50% of the work implementation and is the representative of the grouping.
 - » Only companies or companies in joint venture selected following this prequalification will be invited for the second selection phase. Grouping with other companies not on the shortlist selected at the end of the first stage shall not be accepted.

Bids submitted by a consortium of two or more associated contractors shall meet the following conditions:

- » The bid, if accepted and the market model shall be signed in such a way that they legally bind all the members of the joint venture ;
 - » One of the members of the joint venture shall be designated as the main leader. He shall provide evidence that such designation has been previously authorized by presenting a capacity issued by the duly authorized signatories of each member of the grouping;
 - » The joint venture leader shall be authorized to hold the responsibilities and receive the instructions from all the members of the joint venture and the entire performance of the contract shall be exclusively entrusted to him. He shall act as the sole middleman for payments made;
 - » All members of the joint venture shall be jointly and severally liable for performance of the contract and a declaration to that effect shall be attached to the authorization referred to above and to the bid and the agreement (in case their bid is selected);
 - » A copy of the agreement binding the members of the group shall be attached to the bid.
3. Description of work: the work which shall be executed in several batches, the consistency and the number of which shall be specified in the DAOI (International Bid Document), consist of :
 - (i)The construction of roads, external development and various networks (VRD);
 - (ii)the construction work of the buildings of a Regional Hospital Center (CHR) of 300 beds on a built area of approximately 37,132 m² comprising:

N°	DESIGNATION OF WORKS	SURFACES (m ²)
1	Entry services	224.71
2	Outpatient treatment	284.71
3	Morgue	325.67
4	Surgical emergencies	657.59
5	Medical emergencies	657.59

N°	DESIGNATION OF WORKS	SURFACES (m ²)
6	Operating theater	1 809.61
7	Sterilization centre	117.2
8	Surgical hospitalization (extendable to one storey)	931.67
9	Maternity	1262.98
10	Maternity hospitalization (extendable to one storey)	931.37
11	Paediatric emergency	237.5
12	Paediatrics	216.6
13	Neonatology	190.32
14	Paediatric hospitalization (extendable to one storey)	931.57
15	Laboratory, blood bank	777.25
16	Pharmacy/ drugstore	575.65
17	Medical imaging	597.1
18	Fluid station (Local PSA)	117.91
19	Fluid rooms 1 and 2	60
20	Generator room (2)	194.4
21	Transformer rooms (2)	60
22	Delivery room (TGBT)	30
23	Computer room	190
24	Toilet (latrine and shower) for patients' escorts (3)	44
25	One storey administrative building (extendable to 2 storeys)	981.97
26	Maintenance workshop	390.75
27	Ophthalmology-ENT - odontology	986.96
28	Stomatology	982.75
29	General medicine	1723
30	General medicine hospitalization (extendable to 1 storey)	931.57
31	Infectious diseases and hospitalizations	1154
32	Insulation room	9.25
33	Physiotherapy	268.77
34	Orthopaedics	292.07
35	Mental health/ administration	121.37
36	Mental health /hospitalization	105.75
37	Nutrition service	499.16
38	Kitchen of the CHR	120.24
39	Laundry of the CHR	107.76
40	Covered walkways	510
41	Local incinerator	15
42	Local suppressor	12
43	Interface structure	780.69
44	Car parks for the administration	866

BURKINA FASO

Unité-Progrès-Justice

COMPANY PREQUALIFICATION ANNOUNCEMENT

Date: 8th November 2017

Support Program for Health Development of the Regions of Plateau Central and Centre Sud (PADS /PCCS)

KFAED Loan Agreement N°834 dated 10/14/2011

SFD Loan Agreement N°10/542 dated 06/16/2011

Project Title: Construction of the Regional Hospital of Manga

45	Car parks for staff	90
46	Car parks for visitors	4000
47	Garage parking for ambulance	427
48	Serious burns intensive care	1652
49	Nephrology	565
50	Coffee shop	322.32
51	External shops	295.62
52	Kitchen for patients' escorts	120.24
53	Laundry for patients' escorts	316
54	CTO exhibition space	166
55	CTO nursing station	219
56	CTO housing (for men and women)	514
57	CTO workshop	808
58	10 houses for technicians (villa)	2310
59	Duty houses (student room style)	1774
60	Collective dwellings (bedroom - lounge)	1060
61	Gatehouse	54.3
62	Appatames (shelters) (5)	58.44
63	Shed for patients' escort (5)	41.8
64	Shed at the morgue	54
		37 132

The overall deadline for completion of work is twenty (20) months including periods of disturbance related to the rainy season.

Note : The contracting authority reserves the right to have these works carried out in several batches and in several installments if necessary. The works will be carried out in general company at all level. Interested bidders can have additional information and consider the prequalification document from the Secretariat of the Public Procurement Department of the Ministry of Health 03 BP. 7009 Ouagadougou 03 Tel. (226) 25.30.45.31 Fax: (226) 25.30.45.31; E-mail : pads-pccs@fasonet.bf located in the new building of the central store of the Ministry of Health in the compound of ex-trypano Ouagadougou Burkina Faso.

The prequalification document may be withdrawn by bidders from the said Secretariat. Only one set of the pre-qualification document will be delivered to each of the interested candidates and after they have signed a register open for this purpose at the Secretariat of the Directorate of Public Procurement (DMP).

Failure to comply with this procedure of getting the prequalification dossier may be disqualifying and in this case the application document for the prequalification of the company/joint venture of companies concerned shall be rejected and not opened.

4. The qualifications requirements are :

At the administrative level

a)For bidders who are Burkina nationals, provide the following documents :

- A certificate of tax status dating less than three months,
- A certificate of contributor's social obligations status corresponding to the conditions of his technical approval dating less than three months,
- A certificate from the Judicial Agency of the Treasury dating less than three months,
- A certificate from the Social Legislation Directorate dating less than three months,
- A legalized copy of the technical accreditation for category B4, valid, issued by the Ministry of Town Planning and Housing (in case of joint venture, each company shall provide its approval and the leader shall have a B4 accreditation).
- A receipt for the purchase of the document.

b)For foreign companies, provide :

- A certificate of registration in the trade register,
- A certificate of non-bankruptcy, dated less than three (3) months and issued by a relevant authority,
- A certificate from the tax department dating from less than three (3) months showing that the company is up to date with its tax obligations.
- A technical accreditation for the exercise of the profession of Construction Company.
- A receipt for the purchase of the document.

At the Technical level

a)Technical references: experience as a principal contractor in the completion of at least two (02) projects of same nature and complexity similar to the work involved in this call for bid (large buildings on one site) during the last five (5) years (2012-2016), including at least one (01) health facility of the same or similar nature over the last five (5) years (2012 to 2016).

The minutes of provisional, final and good performance certificates shall be duly signed by the Employer and shall contain such information as the title of the project, its main characteristics, and the amount of work, completion deadline and contacts of the Client.

In case of joint venture, the qualifying requirements referred to in subparagraph (a) above shall be met by one of the members or by the joint venture as a whole during the last five (5) years (2012 to 2016).

b) Human and material resources: have qualified staff, tools, material and technical equipment necessary to carry out the work.

a) Planned workload: Provide information on current commitments for all contracts awarded, ongoing and in the process of completion in line with the implementation capacity, staffing and equipment affected, and forecasts of this project. All information provided could be subject to audit

At the financial level

Present the balance sheets and profit and loss accounts for the past five financial years and a statement of average annual turnover for construction work carried out during the last five (5) years from 2012, which shall not be less than four billion (4,000,000,000) CFA francs or eight million (8,000,000) US dollars.

In the case of a joint venture, the average turnover for each member of the grouping shall be added up to determine if this requirement is met. However, in order for the joint venture to be eligible, the lead partner shall have at least 50% of the turnover, ie 2 000 000 000 CFA francs.

Note: The certificate of the turnover shall be certified by a relevant service of the country of the bidder (the tax department for companies located in Burkina Faso).

If one of the requirements of point 5 above is not met, the bidder concerned shall be disqualified from the prequalification process.

5. Applications for the prequalification of companies/joint venture of companies, drafted in French in four (04) copies of which one (01) original and three (03) copies and marked as such, shall be submitted to or reach the Secretariat of the Public Procurement Department of the Ministry of Health 03 BP. 7009 Ouagadougou 03 Tel. (226) 25.30.45.31 Fax: (226) 25.30.45.31 located in the new building of the central store of the Ministry of Health in the compound of the ex-trypano Ouagadougou Burkina Faso **no later than Monday 15th January, 2018 at 9 AM sharp (local time)**.

In the case of sending by postal office or other mode of mail, the Director of Public Procurement (DMP) shall be held account for the non-receipt of the bid sent by the bidder.

6.The bids shall be opened in the presence of the representatives of the bidders who wish to be present at the opening on **Monday 15th January, 2018 at 9 AM sharp local time** in the meeting room of the Directorate of Public Procurement of the Ministry of Health (DMP/MS), 03 BP. 7009 Ouagadougou 03 Tel. (226) 25.30.45.31 Fax: (226) 25.30.45.31 located in the new building of the central store of the Ministry of Health in the compound of ex-trypano Ouagadougou Burkina Faso.

The Director of Public Procurement

Nawin Ives SOME

Economic data

% change on year ago

	Gross domestic product			Industrial production latest	Consumer prices latest	Unemployment rate, %	Current-account balance			Budget balance % of GDP 2017†	Interest rates, % 10-year gov't bonds, latest	Currency units, per \$ Nov 29th	Currency units, per \$ year ago
	latest	qtr*	2017†				latest	% of GDP 2017†	months, \$bn				
United States	+2.3 03	+3.3	+2.2	+2.9 Oct	+2.0 Oct	+2.0	4.1 Oct	-460.9 Q2	-2.5	-3.5	2.33	-	-
China	+6.8 03	+7.0	+6.8	+6.2 Oct	+1.9 Oct	+1.6	4.0 Q3§	+118.2 Q3	+1.4	-4.3	3.90§§	6.60	6.89
Japan	+1.7 03	+1.4	+1.5	+5.9 Oct	+0.7 Sep	+0.5	2.8 Sep	+194.4 Sep	+3.6	-4.5	0.04	112	113
Britain	+1.5 03	+1.6	+1.5	+2.6 Sep	+3.0 Oct	+2.7	4.3 Aug††	-128.9 Q2	-3.8	-3.3	1.31	0.75	0.80
Canada	+3.7 02	+4.5	+2.9	+5.6 Aug	+1.4 Oct	+1.6	6.3 Oct	-45.0 Q2	-2.9	-1.7	1.88	1.29	1.34
Euro area	+2.5 03	+2.5	+2.2	+3.3 Sep	+1.4 Oct	+1.5	8.9 Sep	+386.9 Sep	+3.1	-1.3	0.38	0.84	0.94
Austria	+2.6 02	+0.4	+2.5	+3.7 Sep	+2.2 Oct	+2.0	5.6 Sep	+61.1 Q2	+2.2	-1.0	0.48	0.84	0.94
Belgium	+1.7 03	+1.2	+1.7	+5.9 Sep	+2.1 Nov	+2.2	7.1 Sep	-5.3 Jun	-0.4	-2.0	0.62	0.84	0.94
France	+2.2 03	+2.2	+1.7	+3.2 Sep	+1.1 Oct	+1.1	9.7 Sep	-26.0 Sep	-1.2	-2.9	0.67	0.84	0.94
Germany	+2.8 03	+3.3	+2.2	+3.5 Sep	+1.8 Nov	+1.7	3.6 Sep‡	+278.1 Sep	+7.1	+0.6	0.38	0.84	0.94
Greece	+0.7 02	+2.2	+1.0	+2.4 Sep	+0.7 Oct	+1.1	20.6 Aug	-0.8 Sep	-0.6	-0.8	5.38	0.84	0.94
Italy	+1.8 03	+1.9	+1.5	+2.4 Sep	+1.0 Oct	+1.3	11.1 Sep	+52.1 Sep	+2.3	-2.3	1.80	0.84	0.94
Netherlands	+3.0 03	+1.8	+2.9	+5.2 Sep	+1.3 Oct	+1.3	5.4 Oct	+76.0 Q2	+9.6	+0.6	0.45	0.84	0.94
Spain	+3.1 03	+3.2	+3.1	+0.3 Sep	+1.6 Nov	+2.0	16.7 Sep	+23.1 Aug	+1.3	-3.3	1.45	0.84	0.94
Czech Republic	+3.4 02	+2.0	+4.5	+4.4 Sep	+2.9 Oct	+2.5	2.7 Sep‡	+1.7 Q2	+0.7	-0.1	1.76	21.5	25.5
Denmark	+1.9 02	-1.2	+2.4	+1.2 Sep	+1.5 Oct	+1.2	4.4 Sep	+27.0 Sep	+8.1	-0.6	0.45	6.28	7.01
Norway	+3.2 03	+3.0	+2.1	+10.5 Sep	+1.2 Oct	+2.0	4.0 Sep‡‡	+16.6 Q2	+5.3	+5.2	1.55	8.23	8.55
Poland	+4.6 02	+4.5	+4.6	+12.3 Oct	+2.1 Oct	+1.9	6.6 Oct§	-0.4 Sep	-0.3	-3.3	3.34	3.55	4.18
Russia	+1.8 03	na	+1.8	-0.1 Oct	+2.7 Oct	+3.9	5.1 Oct§	+36.9 Q3	+2.4	-2.1	8.13	58.5	65.4
Sweden	+2.9 03	+3.1	+3.1	+4.5 Sep	+1.7 Oct	+1.8	6.3 Oct§	+22.5 Q2	+4.6	+0.9	0.70	8.36	9.20
Switzerland	+0.3 02	+1.1	+0.8	+8.7 Q3	+0.7 Oct	+0.5	3.1 Oct	+68.9 Q2	+9.9	+0.7	-0.07	0.98	1.01
Turkey	+5.1 02	na	+5.0	+13.4 Sep	+11.9 Oct	+10.8	10.6 Aug§	-39.3 Sep	-4.7	-2.1	12.66	3.96	3.41
Australia	+1.8 02	+3.3	+2.4	+0.8 Q2	+1.8 Q3	+2.0	5.4 Oct	-21.8 Q2	-1.3	-1.7	2.47	1.32	1.34
Hong Kong	+3.6 03	+2.0	+3.1	+0.4 Q2	+1.5 Oct	+1.6	3.0 Oct‡‡	+15.2 Q2	+5.6	+1.7	1.83	7.81	7.76
India	+5.7 02	+4.1	+6.6	+3.8 Sep	+3.6 Oct	+3.5	5.0 2015	-29.2 Q2	-1.4	-3.1	7.03	64.4	68.7
Indonesia	+5.1 03	na	+5.1	+7.8 Sep	+3.6 Oct	+3.9	5.5 Q3§	-13.3 Q3	-1.6	-2.8	6.55	13,503	13,573
Malaysia	+6.2 03	na	+5.5	+4.7 Sep	+3.7 Oct	+3.9	3.4 Sep‡	+9.2 Q3	+2.5	-3.0	3.96	4.08	4.47
Pakistan	+5.7 2017**	na	+5.7	+2.6 Sep	+3.8 Oct	+3.9	5.9 2015	-14.5 Q3	-4.5	-5.9	7.93†††	105	105
Philippines	+6.9 03	+5.3	+6.6	-3.8 Sep	+3.5 Oct	+3.2	5.6 Q3§	-0.8 Jun	-0.2	-2.7	5.56	50.3	49.7
Singapore	+5.2 03	+8.8	+2.9	+14.6 Oct	+0.4 Oct	+0.6	2.1 Q3	+57.4 Q3	+19.6	-1.0	2.12	1.35	1.43
South Korea	+3.6 03	+5.8	+2.9	-5.9 Oct	+1.8 Oct	+2.0	3.2 Oct§	+87.3 Sep	+4.3	+0.8	2.48	1,077	1,169
Taiwan	+3.1 03	+6.8	+2.5	+2.8 Oct	-0.3 Oct	+0.6	3.7 Oct	+74.1 Q3	+13.5	-0.1	0.99	30.0	31.8
Thailand	+4.3 03	+4.0	+3.5	+4.2 Sep	+0.9 Oct	+0.5	1.2 Sep§	+46.9 Q3	+11.3	-2.5	2.35	32.5	35.7
Argentina	+2.7 02	+2.8	+2.7	-2.5 Oct	+22.9 Oct	+25.1	8.7 Q2§	-19.7 Q2	-3.7	-6.3	5.38	17.4	15.6
Brazil	+0.3 02	+1.0	+0.7	+2.5 Sep	+2.7 Oct	+3.4	12.4 Sep‡	-9.6 Oct	-1.0	-8.0	9.11	3.21	3.41
Chile	+2.2 03	+6.0	+1.4	+5.0 Oct	+1.9 Oct	+2.1	6.7 Sep‡‡	-4.6 Q3	-1.7	-2.8	4.60	643	674
Colombia	+2.0 03	+3.2	+1.7	-1.9 Sep	+4.0 Oct	+4.3	9.2 Sep‡	-12.4 Q2	-3.7	-3.3	6.45	3,004	3,166
Mexico	+1.5 03	-1.2	+2.1	-1.2 Sep	+6.4 Oct	+5.9	3.4 Oct	-16.1 Q3	-1.9	-1.9	7.26	18.5	20.6
Venezuela	-8.8 04~	-6.2	-9.5	+0.8 Sep	na	+886	7.3 Apr§	-17.8 Q3~	-0.8	-19.4	8.24	10.3	10.0
Egypt	+4.9 02	na	+4.2	+15.6 Sep	+30.8 Oct	+26.8	11.9 Q3§	-15.6 Q2	-6.4	-10.8	na	17.7	18.0
Israel	+2.1 03	+4.1	+3.6	+3.2 Sep	+0.2 Oct	+0.3	4.2 Oct	+10.7 Q2	+3.1	-1.3	1.78	3.51	3.84
Saudi Arabia	+1.7 2016	na	-0.7	na	-0.2 Oct	-0.3	5.6 2016	+7.0 Q2	+2.5	-7.2	3.68	3.75	3.75
South Africa	+1.1 02	+2.5	+1.1	-0.6 Sep	+4.8 Oct	+4.7	27.7 Q3§	-7.9 Q2	-0.5	-3.9	9.31	13.7	14.0

Source: Haver Analytics. *% change on previous quarter, annual rate. †The Economist poll or Economist Intelligence Unit estimate/forecast. §Not seasonally adjusted. ‡New series. ~2014. **Year ending June. ††Latest 3 months. §§3-month moving average. §§5-year yield. ††Dollar-denominated bonds.

The Economist

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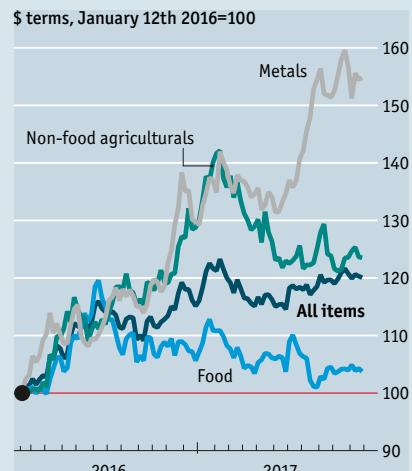
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Markets

	% change on			
	Index Nov 29th	one week	Dec 30th 2016 in local currency terms	in \$
United States (DJIA)	23,940.7	+1.8	+21.1	+21.1
China (SSEA)	3,495.7	-2.7	+7.6	+13.3
Japan (Nikkei 225)	22,597.2	+0.3	+18.2	+23.2
Britain (FTSE 100)	7,393.6	-0.3	+3.5	+12.3
Canada (S&P TSX)	15,967.7	-0.7	+4.4	+9.0
Euro area (FTSE Euro 100)	1,230.8	+0.7	+10.7	+24.4
Euro area (EURO STOXX 50)	3,589.9	+0.8	+9.1	+22.6
Austria (ATX)	3,330.9	+0.4	+27.2	+42.9
Belgium (Bel 20)	3,999.4	+0.8	+10.9	+24.6
France (CAC 40)	5,398.1	+0.8	+11.0	+24.7
Germany (DAX)*	13,061.9	+0.4	+13.8	+27.8
Greece (Athex Comp)	738.3	+2.5	+14.7	+28.9
Italy (FTSE/MIB)	22,325.9	nil	+16.1	+30.4
Netherlands (AEX)	541.4	+0.3	+12.1	+25.9
Spain (Madrid SE)	1,038.5	+2.5	+10.1	+23.7
Czech Republic (PX)	1,053.0	+0.6	+14.3	+36.1
Denmark (OMXCB)	905.5	-0.6	+13.4	+27.3
Hungary (BUX)	38,819.3	-3.3	+21.3	+35.0
Norway (OSEAX)	884.5	-1.1	+15.7	+21.0
Poland (WIG)	62,962.3	-1.6	+21.7	+43.3
Russia (RTS, \$ terms)	1,144.7	-1.2	-0.7	-0.7
Sweden (OMX30)	1,618.7	+0.1	+6.7	+15.9
Switzerland (SMI)	9,304.4	+0.1	+13.2	+16.9
Turkey (BIST)	102,341.8	-3.4	+31.0	+16.3
Australia (All Ord.)	6,096.1	+0.5	+6.6	+12.2
Hong Kong (Hang Seng)	29,623.8	-1.3	+34.7	+33.7
India (BSE)	33,602.8	+0.1	+26.2	+33.1
Indonesia (JSX)	6,061.4	-0.1	+14.4	+14.2
Malaysia (KLCSE)	1,720.4	-0.2	+4.8	+15.2
Pakistan (KSE)	39,672.9	-2.3	-17.0	-17.9
Singapore (STI)	3,439.0	+0.3	+19.4	+28.0
South Korea (KOSPI)	2,512.9	-1.1	+24.0	+39.1
Taiwan (TWI)	10,713.6	-1.0	+15.8	+24.4
Thailand (SET)	1,705.3	-0.5	+10.5	+21.7
Argentina (MERV)	26,902.9	-1.6	+59.0	+44.5
Brazil (BVSP)	72,700.5	-2.4	+20.7	+22.2
Chile (IGPA)	25,216.6	-2.3	+21.6	+26.7
Colombia (IGBC)	10,806.6	-0.7	+6.9	+6.8
Mexico (IPC)	47,646.5	-1.1	+4.4	+16.2
Venezuela (IBC)	1,167.2	+67.6	-96.3	na
Egypt (EGX 30)	14,582.2	+5.4	+18.1	+20.8
Israel (TA-125)	1,324.2	+1.7	+3.7	+13.7
Saudi Arabia (Tadawul)	6,972.0	+2.2	-3.7	-3.6
South Africa (JSE AS)	60,418.4	-0.5	+19.3	+19.4

Commodity prices

The Economist's commodity-price index has risen by 20% from an almost seven-year low in January 2016. Soaring metal prices have pushed up the index, despite an oversupply of nickel earlier this year. Policy changes in China explain much of the rise. In an attempt to curb pollution, Chinese authorities have imposed production cuts which have helped increase the price of aluminium (the largest single weight in our index). The price of copper has also risen this year in response to supply disruptions in Indonesia and Chile. Food prices have stagnated, however, owing to a glut of wheat and oilseeds. The stock-to-use ratio for wheat, a measure of inventories, is forecast to exceed 36% this season, a 30-year high.

**Other markets**

	% change on			
	Index Nov 29th	one week	Dec 30th 2016 in local currency terms	in \$
United States (S&P 500)	2,626.1	+1.1	+17.3	+17.3
United States (NAScomp)	6,824.4	-0.6	+26.8	+26.8
China (SSEB, \$ terms)	341.5	-0.8	-0.1	-0.1
Japan (Topix)	1,786.2	+0.5	+17.6	+22.6
Europe (FTSEurofirst 300)	1,526.1	+0.3	+6.8	+20.0
World, dev'd (MSCI)	2,066.6	+0.8	+18.0	+18.0
Emerging markets (MSCI)	1,146.5	-0.9	+33.0	+33.0
World, all (MSCI)	504.5	+0.6	+19.6	+19.6
World bonds (Citigroup)	948.7	+0.2	+7.3	+7.3
EMBI+ (JP Morgan)	833.7	+0.4	+8.0	+8.0
Hedge funds (HFRX)	1,264.3 [§]	-0.1	+5.1	+5.1
Volatility, US (VIX)	10.4	+9.9	+14.0 (levels)	
CDSs, Eur (iTRAXX) [†]	49.0	-0.1	-32.1	-23.7
CDSs, N Am (CDX) [†]	52.5	nil	-22.6	-22.6
Carbon trading (EU ETS) €	7.7	+4.6	+17.2	+31.6

Sources: IHS Markit; Thomson Reuters. *Total return index.

†Credit-default-swap spreads, basis points. [§]Nov 27th.

Indicators for more countries and additional series, go to: Economist.com/indicators

The Economist commodity-price index

	% change on			
	Nov 21st	Nov 28th*	one month	one year
Dollar Index				
All Items	147.1	146.8	-0.6	+0.7
Food	150.6	149.9	-0.2	-4.8
Industrials				
All	143.4	143.6	-0.9	+7.4
Nfa [†]	131.2	131.2	-0.1	-2.9
Metals	148.7	149.0	-1.2	+11.9
Sterling Index				
All items	202.2	201.8	-0.2	-5.5
Euro Index				
All items	156.0	153.8	-2.4	-10.2
Gold				
\$ per oz	1,282.5	1,294.4	+2.0	+9.1
West Texas Intermediate				
\$ per barrel	56.8	58.0	+6.6	+28.2

Sources: Bloomberg; CME Group; Cottlook; Darmenn & Curl; FT; ICCO; ICO; ISO; Live Rice Index; LME; NZ Wool Services; Thompson Lloyd & Ewart; Thomson Reuters; Urner Barry; WSJ. *Provisional

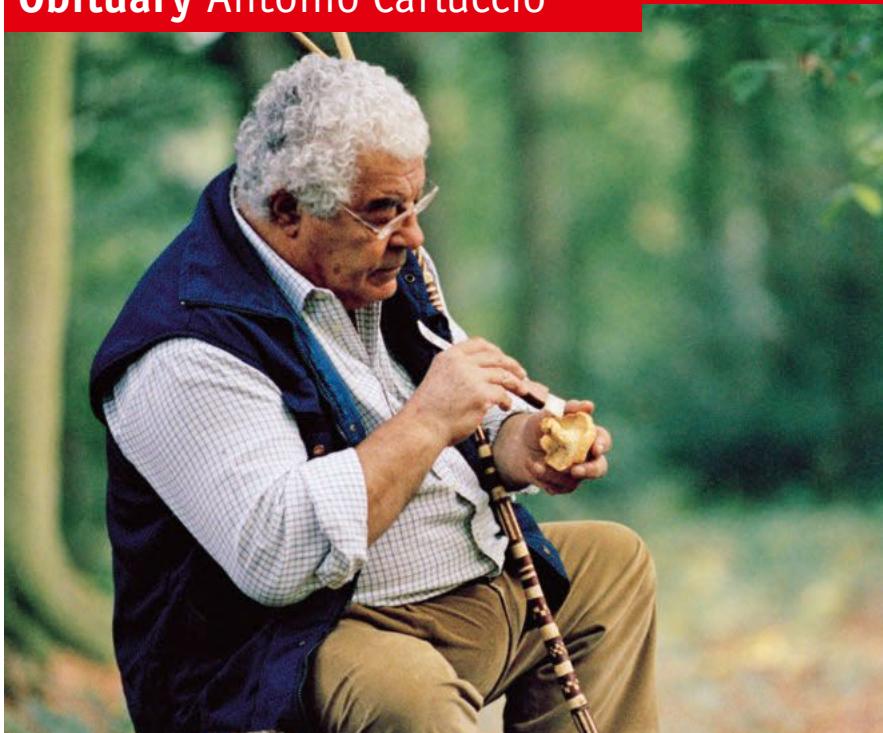
[†]Non-food agriculturals.

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The mushroom man

Antonio Carluccio, ambassador for Italian food, died on November 8th, aged 80

WHEN Antonio Carluccio arrived in Britain in 1975, nervous and tongue-tied, he found Italian food restricted mostly to London's Soho. There a few trattorie made their own pasta, and knew that olive oil was not merely for unblocking ears. At Lina Stores he could buy olives, *panforte* and dry spaghetti. Otherwise and elsewhere, what he called "Britalian" food held sway: ragù that was just flavoured mince, avocado served with a glop made of ketchup and mayonnaise and, to finish, oranges in a sickly syrup masquerading as *caramellata*. All very depressing.

Three decades later, when Carluccio's was listed on the stock exchange and he and his then-wife, Priscilla Conran, had sold their stake for around £10m, his name was on the dark blue blinds of 130 outlets across the land. His 23 books and multiple TV series had made his curly white cap of hair and ample girth synonymous with real Italian food, the sort that made you sigh and cry "Fantastic!", like him, when you tasted it. In Carluccio's Caffès, Britons could not only eat in proper Italian style but could also buy chilli oil, fennel salami, wild-boar sauce, squid-ink linguine. Though many chefs, writers and restaurateurs helped promote the cause in Britain, his name was in the vanguard.

This looked like success to most people.

It was Priscilla, though, who built up the Carluccio brand, after 1999, on the basis of his single restaurant in Neal Street in Covent Garden. She was the business brain; he was the front man, happy to do nothing but seek out perfect foods. And his notion of success was very different. It meant, after a slow stroll with his dog through bare woods on a misty November morning, uncovering a mushroom from the leaf-litter, cutting it off, weighing and savouring it and placing it, with reverence, in his basket. This "quiet hunt" had been his passion since the age of seven, and walks with his father in the Val d'Aosta. For him the fun of living in England was not so much celebrity, as the fact that people knew almost nothing of fungi and were even afraid of them. The woods were full of untouched treasure: stout boletes, high-capped morels, oyster mushrooms, tiny yellow chanterelles. In Hyde Park he found a puffball as big as a football, right beside the path.

Whittling thumb-sticks

Mushrooming reminded him that what he most enjoyed was the feel of things. When he walked in the woods he would also seek out good straight sticks, hazel for preference, to whittle and slowly carve into proper thumb-sticks for uncovering fungi or simply leaning on, hands crossed, to sur-

vey the scene. When he wrote his books he would do so in pencil, crafting them. He was a countryman; though his father was a stationmaster, the family kept pigs and a goat, and grew vegetables whose fresh, intense flavour he never forgot. His mother made bread, preserves and sausages, and was his only cookery teacher. No chef's dainty training for him. On television he manhandled slabs of speck and cheese like a true peasant, flicking aside with impatience the frilly paper caps on Carluccio's sauces to get at the good stuff inside.

So when he took full charge of his restaurant in Neal Street in the late 1980s, his mission was mushrooms in all their glorious variety. Gradually, they crept into his menus: turbot with honey fungus, supreme of pheasant with truffles. (He would happily shave truffle over almost anything.) At first he had to pick every mushroom himself, dashing out between services to his secret places near enough to London; later he found Poles to help him. Boxes of the season's delights would appear outside the restaurant and he would stand beside them, drawing on a fat cigar.

He used fungi to teach British diners to be more daring generally: to eat a stew made of lamb pluck, for example. Mushrooms also showed that the best things were transitory, seasonal, and had to be eaten as fresh as possible. The same applied to fish and vegetables: pick them fresh, cook them simply but wonderfully, as farmers' wives did. A dish of fried ceps and potatoes was perfection, summing up his slogan *mof mof*: minimum of fuss, maximum of flavour. "Abundant wine to drink!" was all that needed adding.

Mushrooming gave him solace, too. His life, which seemed so jolly to outsiders, contained much sadness. The worst was the death by drowning, at 13, of his youngest brother Enrico. He could not begin to deal with the heaviness left in his heart except by foraging for wild things and painstakingly shaping them into something else. And he could not stay in his technician's job or in Italy, though he had no idea where his future lay. He roamed Europe homesick for his mother's cooking. His efforts to replicate it drew in many girls, but none gave him the family and children he wanted more than anything. His three marriages all foundered. He loved the buzz and challenge of running his restaurant, but it closed in 2007 when developers moved into Neal Street. Behind the jovial smile, he attempted suicide several times.

The real problem, he knew, was that Carluccio the brand had come to obscure the man. The glossy stores were too far removed from handling and making things. They were too far from the woods and the joys of gathering, but that was the life that was true to him. The motto he chose was *in natura veritas*. In Nature lay his truth. ■

The World in 2018

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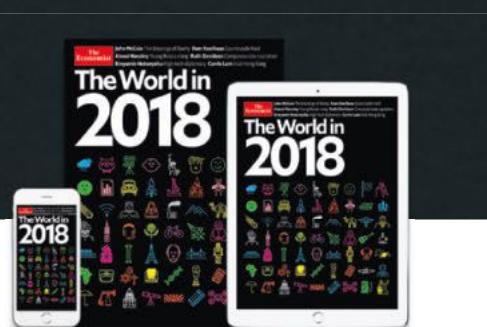
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