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In Britain, the state is back

The WannaCry wake-up call

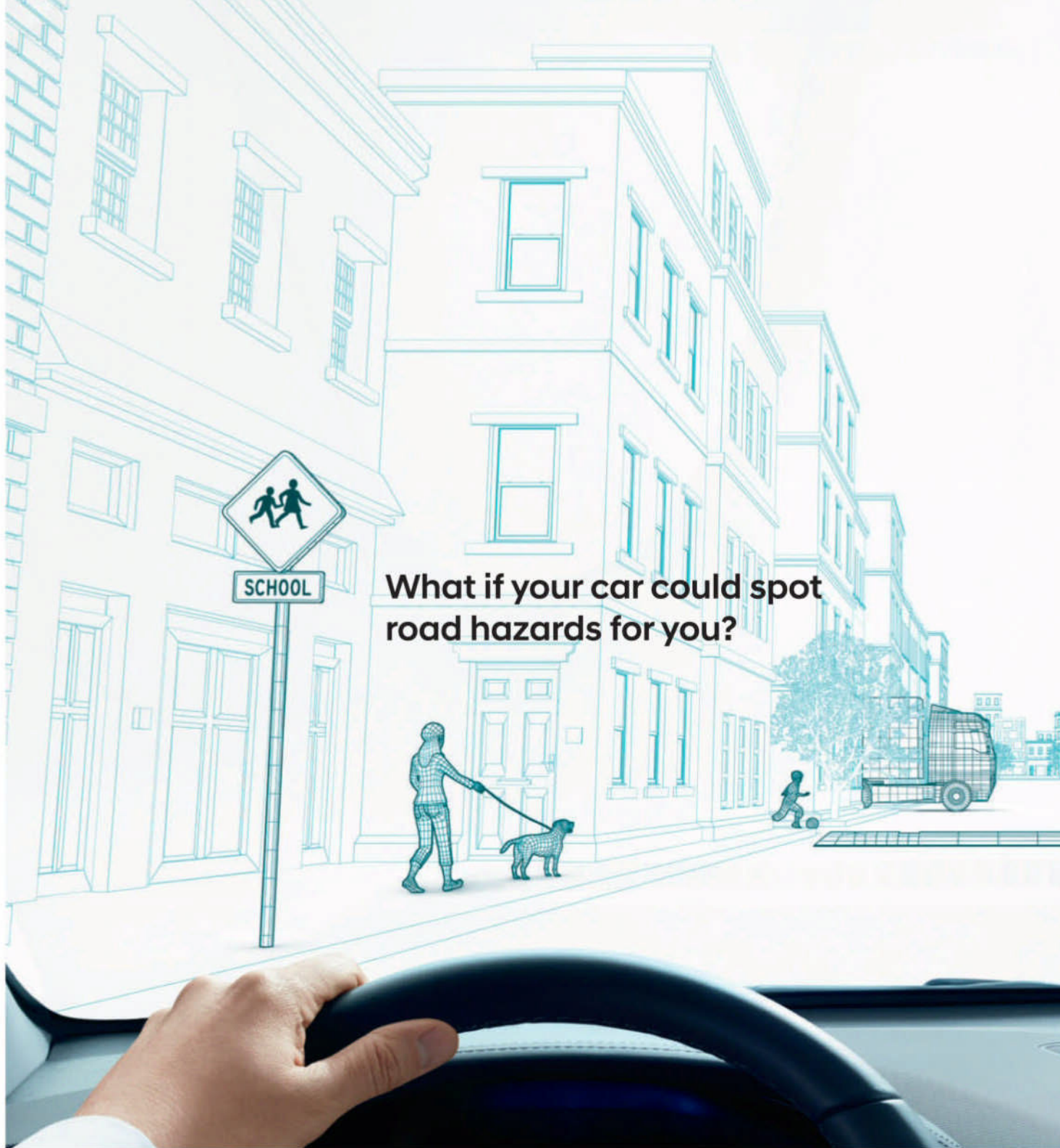
Peak complacency in the fear index

Of God and Trump

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On the cover

In Israel, land for peace should also mean land for democracy: leader, page 13. Israel has become powerful and rich, but has not found peace with the Palestinians—nor with itself. See our special report after page 44. Apprehensive hosts prepare for an unpredictable guest from the White House. What could possibly go wrong? Page 40

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Print edition: available online by 7pm London time each Thursday
Economist.com/print

Audio edition: available online to download each Friday
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Volume 423 Number 9041

Published since September 1843

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

Editorial offices in London and also:

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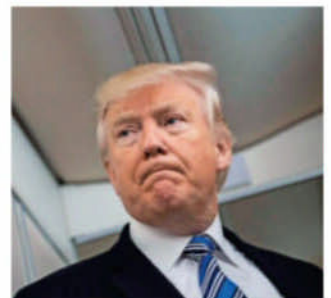
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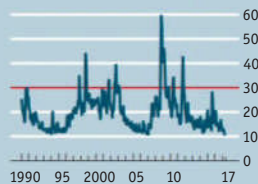
Malaysia A policy of helping ethnic Malays may seem to work. But its benefits are debatable and its costs calamitous: leader, page 18. Although affirmative action is failing poor Malaysians, reform looks far off, page 52



Cyber-attacks Companies, users and governments all need to wake up to the dangers of a computerised world: leader, page 14. Malware attacks are not new. But after WannaCry they might be taken more seriously, page 75

Stockmarket volatility

VIX index



Source: Chicago Board Options Exchange

The fear index Has the American market passed peak complacency? Buttonwood, page 70



Coca-Cola It owns one of the world's most successful consumer products. But can it be something more? Page 62

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Subscription for 1 year (51 issues)
Print only UK – £145

Principal commercial offices:

25 St James's Street, London SW1A 1HG
Tel: +44 (0) 20 7830 7000

Rue de l'Athénée 32
1206 Geneva, Switzerland
Tel: +41 22 566 2470

750 3rd Avenue, 5th Floor, New York, NY 10017
Tel: +1 212 541 0500

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12 Taikoo Wan Road, Taikoo Shing, Hong Kong
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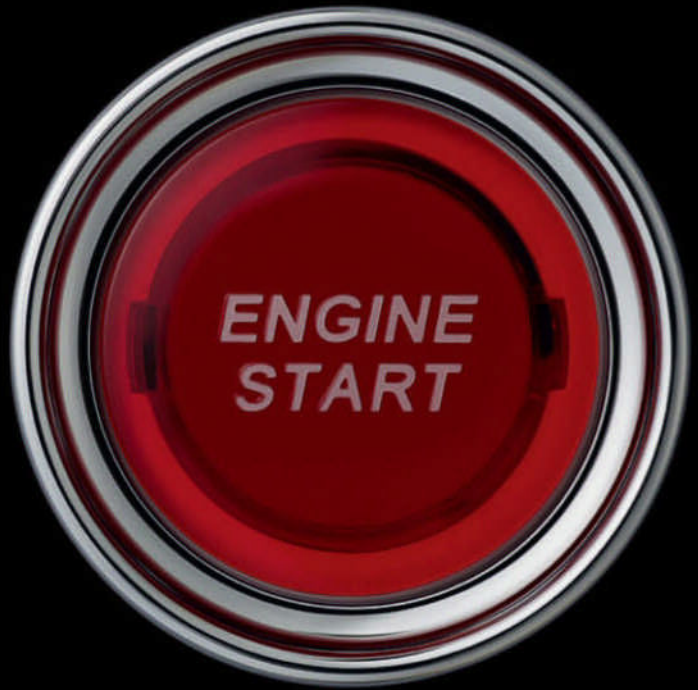
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Politics



America's Justice Department unexpectedly appointed **Robert Mueller** as a special counsel to investigate claims about Russian links to the Trump administration. Mr Mueller is a former head of the FBI. He was appointed to lead the Russian investigation by Rod Rosenstein, the deputy attorney-general; Jeff Sessions, the attorney-general, has recused himself from the matter because of his previous meetings with the Russian ambassador.

Meanwhile, the chairman of the House Oversight Committee asked the FBI to hand over all documents related to meetings between the president and **James Comey**, who has been sacked by Donald Trump as director of the bureau. This followed reports that Mr Trump had asked Mr Comey to drop an investigation into Russian contacts.

In yet more White House intrigue, **Donald Trump** reportedly let slip highly sensitive information to the Russian foreign minister at their meeting in the Oval Office. The reports claimed the president revealed details about intelligence gathered by Israel regarding an Islamic State plot.

The impeachment trail

O Globo, a **Brazilian** newspaper, reported that the country's president, Michel Temer, had been taped encouraging payments to silence a politician who had been convicted of bribe-taking. The tape recorded a meeting between Mr Temer and Joesley Batista, whose family controls JBS, the

world's largest beef exporter. The opposition called for Mr Temer's impeachment. He has denied that he endorsed the payment of hush money.

Javier Valdez, a journalist who investigated drug-trafficking gangs in **Mexico**, was shot dead by unknown attackers. So far this year at least four journalists have been murdered in Mexico for their reporting.

A judge in **Argentina** charged Hebe de Bonafini, the head of Mothers of Plaza de Mayo, a group that campaigns for justice for the victims of the country's dictatorship of the 1970s and 1980s, with misappropriating public money. She denies wrongdoing. The group of mothers marches every Thursday to commemorate their disappeared children.

The misfit

The European Parliament backed a resolution calling for sanctions on the **Hungarian** government in response to its harsh treatment of refugees and its attempt to close the Central European University in Budapest. The parliament urged Brussels to trigger Article 7, the "nuclear option", which would suspend Hungary's voting rights in the council.



Shortly after his inauguration as president of **France**, Emmanuel Macron went to Berlin for talks with Angela Merkel, the **German** chancellor. German politicians are divided over how to respond to Mr Macron's calls for closer integration in the euro zone. Meanwhile, Mr Macron appointed Édouard Philippe, the centre-right mayor of Le Havre, as his prime minister.

Mrs Merkel's **Christian Democrats** won another German state election, this time in North Rhine-Westphalia. It was the third surprise consecutive defeat for the Social Democrats.

Ireland's prime minister, Enda Kenny, resigned, fulfilling a promise he made in February. Mr Kenny, who had governed since 2011, was seen to have mishandled a scandal in the national police force. His party, Fine Gael, will elect a new leader by June 2nd.

Recep Tayyip Erdogan, the president of **Turkey**, visited the White House. Donald Trump brushed aside concerns about Mr Erdogan's crack-down on political opponents, while Mr Erdogan's bodyguards brawled with protesters outside the Turkish ambassador's residence.

Unbuckling the belt

China's president, Xi Jinping, presided over a meeting in Beijing of leaders from 29 countries to discuss his plans for huge investments in infrastructure, energy and other projects as part of his "Belt and Road Initiative". Mr Xi said the scheme would bring about a "golden age" of globalisation.

North Korea tested a new type of missile, which reached an altitude of over 2,000km before falling into the Sea of Japan. Reaching such a height constitutes a technical breakthrough for the country's missile programme.

Containment field

Three people died and 19 patients were suspected to have contracted **Ebola** in the Democratic Republic of Congo. A previous epidemic of the virus in west Africa from 2013 to 2016 killed more than 11,000 people.

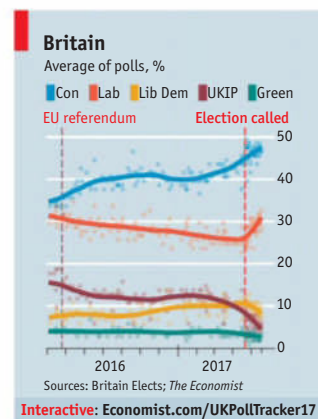
Some 8,400 soldiers in **Ivory Coast** mutinied, demanding that the government pay them money they say they are owed. One person was killed in stray fire before the government agreed to pay up. It was the second mutiny in the country since January.

Clashes between rival militias for control of Bangassou, a diamond-mining town in the **Central African Republic**, left at least 115 people dead, according to the Red Cross. Gunmen also attacked a UN base in the town.

Tunisia extended a state of emergency for another month, arguing it is needed to fight terrorism. The declaration, which has already been in force since November 2015, gives additional powers to the police that activists say are used to suppress legal political activities.

Manifesto destiny

Britain's political parties released their election manifestos. The Conservative one contained the expected rhetoric on Brexit and also kept a pledge to reduce net migration to under 100,000 (a target the Tories have missed since 2010) and a promise to deal with the spiralling cost of social care. Labour's offering, which Jeremy Corbyn, the party's leader, said was fully costed, had tax rises and nationalisation at its heart; a sharp move to the left compared with the party under Tony Blair.



The leaking of Labour's manifesto before its official launch did no apparent damage to its standing in the polls. After declining consistently before the election was announced, Labour is again scoring over 30% on average, pre-Brexit referendum territory for the party. That will be of little comfort to Mr Corbyn, however, as the Tories still enjoy a 16-point lead.



Business

A piece of **malicious software** known as WannaCry spread across the internet, infecting 300,000 computers worldwide and causing disruption to Britain's National Health Service, Russia's interior ministry and various companies. The malware, which demands a payment in bitcoin to make it disappear, exploits a flaw in an outdated Microsoft operating system that was first discovered by America's National Security Agency and then leaked online by a group calling itself "Shadow Brokers".

Like a rolling Stone



Twitter announced that Biz Stone is returning to work as a mentor guiding its culture. Mr Stone was one of the founders of the social network and along with Jack Dorsey, the chief executive, holds the patent to "tweeting". He left in 2011 to pursue other interests. Twitter's share price has risen by 12% since the start of the year, as investors bet that a noticeable increase in the number of daily users will generate higher revenues.

Vodafone reported a €6.1bn (\$6.7bn) annual net loss for the year ending March 31st. Much of that was because of a write-down of its business in India, which was hammered by cut-throat competition in the country's telecoms market from the entry of Reliance's Jio.

In a blow to **Volkswagen's** hopes of turning a corner on the emissions-cheating affair, prosecutors in Germany added Matthias Müller, vw's chief executive, to their list of suspects in an investigation into whether information about

the scandal was held back from markets. The chairman of the supervisory board and other executives are also being investigated.

Ford announced that it is cutting 1,400 non-assembly-line jobs, mostly in Asia and North America. Job cuts are a sensitive issue in the American car industry. After enduring the wrath of a Donald Trump tweetstorm for moving factories abroad, Ford earlier this year pledged to create more jobs in Michigan.

The British government sold its small remaining stake in **Lloyds Banking Group**, returning the bank fully to the private sector after a bail-out in 2008-09. Lloyds reckons the Treasury has received a €900m (\$1.2bn) return on the £20.3bn of taxpayers' money that was ploughed into it. The government still holds a large stake in Royal Bank of Scotland.

Moody's struck a deal to buy **Bureau van Dijk**, a Dutch provider of business data on 220m companies, for \$3.3bn. That prompted Standard & Poor's, a credit-rating rival, to lower its outlook on Moody's from stable to negative because the acquisition will be funded by new debt.

Workers' wages in Britain fell further behind **inflation**. New figures showed that average weekly earnings rose by 2.1%. Consumer prices in April increased by 2.7%, up sharply from 2.3%. Higher electricity and gas bills helped fuel inflation, but the main factor was a spike in air fares (the Easter break fell in April). The **unemployment rate** dropped to 4.6%; the last time it was this low was 1975.

The late timing of Easter was one explanation behind **easyJet's** pre-tax loss of £236m (\$293m) for the six months ending March 31st. But the British low-cost airline was hit harder by the fall in the pound following last June's vote to leave the EU. Its share price plunged by 7%.

Advance Australia fair

Emphasising its Australian roots, **BHP Billiton** rebranded itself as BHP, dropping the British "Billiton" part of its name. The move came in response to a push from **Elliott**, an activist hedge fund, for the mining giant to end its dual Anglo-Australian structure and move its sole listing to London. Elliott gave up on that demand this week, but still wants BHP to spin off its oil business in America.

Atlantia, a toll-road operator in Italy that also manages Rome's two airports, launched an unsolicited bid for **Abertis**, a toll-road operator based in Spain with contracts in a dozen other countries. One potential barrier to the deal, which is worth €16bn (\$18bn), could be opposition from Criteria, an investment group that is the biggest shareholder in Abertis.

Don't hold your breath

In a closely watched judgment that could affect the course of the Brexit negotiations, the European Court of Justice ruled that the EU's member states must vote on two aspects of a **free-trade agreement** with Singapore before it becomes legal. However, the court also said that the EU had "exclusive competence" in areas such as foreign investment and intellectual-property rights, which it could negotiate without seeking ratification from national parliaments. Brexiteers saw that as potentially smoothing the path of a trade pact between Britain and the EU, though the comparatively less complex deal with Singapore took three years to conclude, and has been awaiting approval since 2013.

Other economic data and news can be found on pages 84-85





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Why Israel needs a Palestinian state

More than ever, land for peace also means land for democracy



THE victory of Israel over the Arab armies that encircled it in 1967 was so swift and absolute that, many Jews thought, the divine hand must have tipped the scales. Before the six-day war Israel had feared another Holocaust; thereafter it became an empire of sorts. Awestruck, the Jews took the holy sites of Jerusalem and the places of their biblical stories. But the land came with many Palestinians whom Israel could neither expel nor absorb. Was Providence smiling on Israel, or testing it?

For the past 50 years, Israel has tried to have it both ways: taking the land by planting Jewish settlements on it; and keeping the Palestinians unenfranchised under military occupation, denied either their own state or political equality within Israel (see our special report in this issue). Palestinians have damaged their cause through decades of indiscriminate violence. Yet their dispossession is a reproach to Israel, which is by far the stronger party and claims to be a model democracy.

Israel's "temporary" occupation has endured for half a century. The peace process that created "interim" Palestinian autonomy, due to last just five years before a final deal, has dragged on for more than 20. A Palestinian state is long overdue. Rather than resist it, Israel should be the foremost champion of the future Palestine that will be its neighbour. This is not because the intractable conflict is the worst in the Middle East or, as many once thought, the central cause of regional instability: the carnage of the civil wars in Syria, Iraq and elsewhere disproves such notions. The reason Israel must let the Palestinian people go is to preserve its own democracy.

The Trump card

Unexpectedly, there may be a new opportunity to make peace: Donald Trump wants to secure "the ultimate deal" and is due to visit the Holy Land on May 22nd, during his first foreign trip. The Israeli prime minister, Binyamin Netanyahu, appears as nervous as the Palestinian president, Mahmoud Abbas, seems upbeat. Mr Trump has, rightly, urged Israel to curb settlement-building. Israel wants him to keep his promise to move the American embassy to Jerusalem. He should hold off until he is ready to go really big: recognise Palestine at the same time and open a second embassy in Jerusalem to talk to it.

The outlines of peace are well known. Palestinians would accept the Jewish state born from the war of 1947-48 (made up of about three-quarters of the British mandate of Palestine). In return, Israel would allow the creation of a Palestinian state in the remaining lands it occupied in 1967 (about one-quarter). Parcels could be swapped to take in the main settlements, and Jerusalem would have to be shared. Palestinian refugees would return mostly to their new state, not Israel.

The fact that such a deal is familiar does not make it likely. Mr Netanyahu and Mr Abbas will probably string out the process—and try to ensure the other gets blamed for failure. Distracted by scandals, Mr Trump may lose interest; Mr Netanyahu may lose power (he faces several police investigations); and

Mr Abbas may die (he is 82 and a smoker). The limbo of semi-war and semi-peace is, sadly, a tolerable option for both.

Nevertheless, the creation of a Palestinian state is the second half of the world's promise, still unredeemed, to split British-era Palestine into a Jewish and an Arab state. Since the six-day war, Israel has been willing to swap land for peace, notably when it returned Sinai to Egypt in 1982. But the conquests of East Jerusalem, the West Bank and the Gaza Strip were different. They lie at the heart of Israelis' and Palestinians' rival histories, and add the intransigence of religion to a nationalist conflict. Early Zionist leaders accepted partition grudgingly; Arab ones tragically rejected it outright. In 1988 the Palestine Liberation Organisation accepted a state on part of the land, but Israeli leaders resisted the idea until 2000. Mr Netanyahu himself spoke of a (limited) Palestinian state only in 2009.

Another reason for the failure to get two states is violence. Extremists on both sides set out to destroy the Oslo accords of 1993, the first step to a deal. The Palestinian uprising in 2000-05 was searing. Wars after Israel's unilateral withdrawal from Lebanon in 2000 and Gaza in 2005 made everything worse. As blood flowed, the vital ingredient of peace—trust—died.

Most Israelis are in no rush to try offering land for peace again. Their security has improved, the economy is booming and Arab states are courting Israel for intelligence on terrorists and an alliance against Iran. The Palestinians are weak and divided, and might not be able to make a deal. Mr Abbas, though moderate, is unpopular; and he lost Gaza to his Islamist rivals, Hamas. What if Hamas also takes over the West Bank?

All this makes for a dangerous complacency: that, although the conflict cannot be solved, it can be managed indefinitely. Yet the never-ending subjugation of Palestinians will erode Israel's standing abroad and damage its democracy at home. Its politics are turning towards ethno-religious chauvinism, seeking to marginalise Arabs and Jewish leftists, including human-rights groups. The government objected even to a novel about a Jewish-Arab love affair. As Israel grows wealthier, the immiseration of Palestinians becomes more disturbing. Its predicament grows more acute as the number of Palestinians between the Jordan river and the Mediterranean catches up with that of Jews. Israel cannot hold on to all of the "Land of Israel", keep its predominantly Jewish identity and remain a proper democracy. To save democracy, and prevent a slide to racism or even apartheid, it has to give up the occupied lands.

Co-operation, not collaboration

Thus, if Mr Abbas's Palestinian Authority (PA) is weak, then Israel needs to build it up, not undermine it. Without progress to a state, the PA cannot maintain security co-operation with Israel for ever; nor can it regain its credibility. Israel should let Palestinians move more freely and remove all barriers to their goods (a freer market would make Israel richer, too). It should let the PA expand beyond its ink-spots. Israel should voluntarily halt all settlements, at least beyond its security barrier.

Israel is too strong for a Palestinian state to threaten its existence. In fact, such a state is vital to its future. Only when Palestine is born will Israel complete the victory of 1967. ■

The Trump presidency

Wise counsel

The right way to clear up doubts over collusion between Russia and the Trump campaign



A SHORT but strikingly powerful phrase—"in the public interest"—underpinned the welcome announcement, on May 17th, that a former FBI chief, Robert Mueller (pictured), is to serve as a special counsel investigating Russian meddling in last year's presidential election and whether members of Donald Trump's campaign colluded in that attack on democracy.

Mr Mueller was appointed by the deputy attorney-general, Rod Rosenstein, who explained that he was acting to ensure the American people have "full confidence" that their nation is grounded in the rule of law, without regard to partisan politics. It says something about the perils of this moment that Mr Rosenstein, a career prosecutor, needed to spell out that reasoning. Still, after weeks of inappropriate and suspicious behaviour by Mr Trump and his aides, shameful foot-dragging by Republican leaders in Congress and, at times, premature hysteria from Democrats, no probe led by politicians or partisan appointees can enjoy the trust of a divided country.

This being America in 2017, pundits and elected officials instantly began parsing the partisan consequences of Mr Mueller's appointment. It is a disaster for Mr Trump and his team, who must now "lawyer up" and brace for months of questions about what they knew and when they knew it. In the short term, it takes some heat off Republican leaders in Congress, who no longer have the main responsibility for the investigation. Trump supporters, egged on by conservative media hosts, rage that the "deep state" is mounting a coup against their president. Democrats cannot conceal their glee.

But the power of Mr Rosenstein's decision lies in his appeal to the public at large, and to Americans' shared interest in answering questions about a bitter election and its aftermath.

The appointment of Mr Mueller feels like a validation of the very idea of impartial justice.

It is the result of an extraordinary series of misdeeds and follies. Mr Rosenstein was left to act because his boss, Jeff Sessions, the attorney-general and a ferocious Trump partisan, had to recuse himself after offering the Senate misleading testimony about his contacts with the Russian government in the campaign. Mr Trump's national security adviser, Mike Flynn, had to resign after lying to the vice-president about his own contacts with the Russians. Public confidence that Russia will be held to account is fragile because Mr Trump fired the man in charge of federal probes into that meddling, the director of the FBI, James Comey. Mr Rosenstein's credibility was on the line after White House aides tried to claim that the firing of Mr Comey was his idea (until Mr Trump took the credit). A final straw came when the *New York Times* reported, on May 16th, that Mr Comey had kept notes of a February conversation in which Mr Trump spoke to him about ending his investigations into Mr Flynn—which comes close to obstructing justice.

Cleaning up

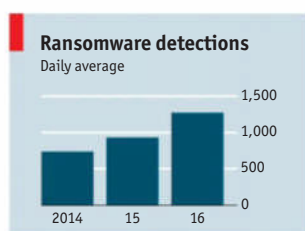
A single, grubby thread runs through this: when Mr Trump and his close associates are accused of furtive or illegal acts, their instinct is to obfuscate, cry "fake news" or search for scapegoats. By appointing a counsel with the reputation of Mr Mueller, outside the normal chain of political command, Mr Rosenstein has held himself to a higher standard.

Mr Mueller has borne weighty burdens before: he took office as FBI director under George W. Bush one week before the terrorist attacks of September 2001 and, over 12 years, earned respect from Republicans and Democrats alike. It is to be hoped that he can keep the trust of the American public, even as partisan accusations fly. He was hired to represent the public's interests, rather than those of any faction. That is a start. ■

The WannaCry attack

The worm that turned

Companies, individuals and governments need to wake up to the dangers of a computerised world



IT SOUNDS like a Hollywood disaster film. A group of hackers use a stolen cyber-weapon to try to extort money from people worldwide. The attack cripples hospitals, causing ambulances to be diverted and operations to be cancelled. Then a lone security researcher stumbles across a way to halt the bug in its tracks. Yet that is exactly what happened last week when a piece of ransomware called WannaCry, which infects computers running outdated versions of Microsoft's Windows operating system, hit not just Britain's National Health Service (NHS)

but Russia's interior ministry, Chinese universities, Germany's state railways and plenty more besides.

It could have been much worse. WannaCry does not seem to have been a deliberate attack on hospitals, but a criminal money-making scheme in which the NHS was collateral damage (see page 75). Indeed, as malicious programs go, WannaCry is not even in the premier league: although it has a nasty payload, it had compromised only about 300,000 computers and raised an estimated \$80,000 as *The Economist* went to press. Earlier nasties, such as Conficker and SoBig, infected millions of machines. Even so, the incident rammed home two unpleasant truths about the computerised world.

The first is that the speed, scalability and efficiency of com- ▶▶

puters are a curse as well as a blessing. Digital data are weightless, easy to replicate, and can be sent around the world in milliseconds. That is welcome if those data are useful, but not if they are malicious. Modern software can contain millions of lines of code. Ensuring that no bugs slip through is almost impossible. A single vulnerability can affect thousands or millions of machines, and the internet gives a single individual the power to compromise them all at once. By comparison, paper files are heavy, cumbersome and awkward to work with. But at least a couple of crooks thousands of miles away cannot cause them all to vanish simultaneously. If WannaCry can cause so much random damage, imagine what might be done if hospitals were targeted deliberately.

The second unpleasant truth is that opportunities for mischief will only grow. More things will become vulnerable as computers find their way into everything from cars and pacemakers to fridges and electricity grids. The ransomware of tomorrow might lock you out of your car rather than your files. Cyber-attacks like WannaCry may seem like low-probability, high-impact risks. But the parlous state of computer security and the computerisation of the world risk turning such attacks into high-probability, high-impact events.

Fortunately, there are ways to minimise the danger. Product regulation can force the makers of internet-connected gizmos to include simple security features, such as the ability to update their programs with patches if a vulnerability turns up. Software-makers routinely disclaim liability for defects in their products. Changing that would not eliminate bugs entirely, but it would encourage software firms to try harder. It would

also encourage them to provide better support for their customers (although there will come a point at which it is unreasonable to expect Microsoft and others to keep maintaining old programs). The insurance industry can also put pressure on computer users: just as home-insurance policies will not pay out if a burglar gets in through an open door, so individuals should be held liable if they do not follow basic digital hygiene, such as keeping their software up to date.

WannaCry or WannaSpy?

Governments face tough questions, too. The method WannaCry uses to spread was discovered years ago by the National Security Agency (NSA), America's electronic-spying outfit. Along with several other cyber-weapons, the technique was stolen, then leaked onto the internet in March. Only after the theft did the NSA inform Microsoft of the flaw, leading the firm to rush out a fix. Microsoft has accused the NSA of losing control of the digital equivalent of a cruise missile, and demanded that, in future, spies disclose any bugs as they find them, so that software firms can fix them and keep everybody safe.

This is another example of the double-edged nature of computing. Given the rising costs of insecure computers, there is a strong case for spooks to share vulnerabilities with software firms when they find them. Some argue that fixing flaws in programs will make it harder for the intelligence services to spy on organised criminals and terrorists. But they have other means to infiltrate hostile networks and monitor devices besides exploiting flaws in widely used software. When computers are ubiquitous, security is too important not to fix. ■

Fentanyl

The latest scourge

Prohibition is not the answer to the latest wave of America's opioid crisis



THE roadside billboards in some American towns do not advertise fast-food chains or home insurance. Instead, they tell people what to do in case of a drug overdose. Deaths in America from opioids, pain-relieving drugs that include both

prescription painkillers such as OxyContin and illegal ones such as heroin, have almost quadrupled over the past two decades. In some states the share of babies who are born with withdrawal symptoms has increased by 300% since 1999; at least 8,000 were born suffering from them in 2013. Each day 91 Americans die from an opioid overdose.

Much of this catastrophe stems from the over-prescription of legal painkillers. In 2015 some 650,000 prescriptions were handed out on an average day. But when prescriptions end, addicts sometimes turn to illicit substances. The latest one that worries experts is a synthetic opioid called fentanyl, which is around 50 times more potent than heroin and 100 times more powerful than morphine. Most of the fentanyl making its way to America has been made, often legally, in factories in China before being shipped to criminal networks in Mexico and Canada and then smuggled over the border. Thousands of Americans have died from using fentanyl since 2013.

In the face of such numbers, it is always tempting to reach for the comfort blanket of prohibition. The Trump administration is taking a hawkish line on drugs of all kinds. Jeff Sessions, the attorney-general, opposes the legalisation of cannabis. On May 12th he appeared to reverse years of sensible policy that sought to reduce punishment for non-violent drug crimes by instructing prosecutors to pursue the “most serious, readily provable” offences. Efforts are being made to restrict synthetics. In March the government in China, under pressure from America and the UN, agreed to make four variants of fentanyl illegal. Yet such plans will do little to stop the opioid crisis or to curb the threat from fentanyl.

Available with next-day delivery

That is partly because the crisis is too far advanced for criminalisation to work as a deterrent. The country has at least 2m opioid addicts. They need treatment and safer places to take drugs. The health-care bill passed by the House of Representatives this month heads in the opposite direction. Its proposals would cut spending and reduce access to medicines.

But prohibition is futile for more profound reasons, too. An iron law of drugs markets, whether for painkilling opioids or recreational highs, is that demand creates supply and just as much as vice versa. Fentanyl is particularly attractive to criminals. Because it is so potent, with only 2mg of the stuff enough ▶▶



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▶ to cause an overdose, it is easy to hide in letters and small packages that are sent by post. The rewards are enormous: 1kg of fentanyl costs around \$4,000 to buy from China and yields profits of \$1.6m on the streets. By contrast, 1kg of heroin costs around \$6,000 but is worth a few hundred thousand dollars.

Fentanyl, and its variants, are among hundreds of new synthetic drugs that have flooded the illicit-drugs market over the past decade (see page 22). New drugs have been emerging at the rate of one a week; in 2012-17, 20 new fentanyl analogues appeared. A market this protean cannot be erased. Crack down in China, and laboratories will appear in Mexico; already some have opened there. Ban one substance, and another will appear. Whack every mole, as Britain has attempted with a law that prohibits any new drug that has a psychoactive effect, and substances get pushed from shops to the internet.

Banning drugs is not just ineffective, it is also counterpro-

ductive. Fentanyl is a nasty substance, but prohibiting all illicit drugs, whether they are new or established, prevents the research that could distinguish between those which are more and less harmful. It also leads to topsy-turvy outcomes. Marijuana, which cannot lead to overdoses and which can be used as an effective pain-relief medicine, is classified by the federal authorities in America as a more dangerous drug than fentanyl, which is used in very controlled doses by cancer patients and abused fatally across the country.

It takes guts to legalise drugs when so many are dying from them. But it is better that addicts take safe doses of familiar substances under sanitary conditions than for them to risk their lives enriching criminals. Switzerland followed the legalisation path after a heroin epidemic in the 1980s, treating drugs as a public-health problem. Since then drug-taking and drug-related deaths have fallen. America should follow suit. ■

Racial preferences in Malaysia

Deformative action

State help for ethnic Malays may seem to have worked. But its benefits are debatable and its costs calamitous



WHAT government would not like to reduce racial disparities and promote ethnic harmony? The tricky part is knowing how. One country that claims to have found a way is Malaysia. Since 1971 it has given preferential treatment in everything from education to investing to *bumiputeras*—people of indigenous descent, who are two-thirds of the population but poorer than their ethnic-Chinese and -Indian compatriots.

On the face of things, this system of affirmative action has been a success (see page 52). The gap in income between Malays (the biggest *bumiputera* group) and Chinese- and Indian-Malaysians has narrowed dramatically. Just as important, there has been no repeat of the bloody race riots of 1969, when Malay mobs burned Chinese shops in Kuala Lumpur, prompting the adoption of the policy. And the economy—typically an instant victim of heavy-handed government attempts at redistribution—has grown healthily.

Small wonder that some see Malaysia as a model. South African politicians cited it when adopting their plan for “Black Economic Empowerment” in the early 2000s. More recently Indonesian activists have been talking about instituting something similar there. Malaysia, meanwhile, keeps renewing the policy, which was originally supposed to end in 1991. Just last month Najib Razak, the prime minister (pictured), launched the latest iteration: the catchily named Bumiputera Economic Transformation Roadmap (BETR) 2.0, which, among other things, will steer a greater share of government contracts to *bumiputera* businesses.

Money for old rope

Yet the results of Malaysia’s affirmative-action schemes are not quite what they seem. Malays in neighbouring Singapore, which abjures racial preferences, have seen their incomes grow just as fast as those of Malays in Malaysia. That is largely because the Singaporean economy has grown faster than Ma-

laysia’s, which may in turn be a product of its more efficient and less meddling bureaucracy. Singapore, too, has been free from race riots since 1969.

If the benefits of cosseting *bumiputeras* are not as clear as they first appear, the costs, alas, are all too obvious. As schools, universities and the bureaucracy have become less meritocratic, Chinese and Indians have abandoned them, studying in private institutions and working in the private sector instead. Many have left the country altogether, in a brain drain that saps economic growth.

Steering so many benefits to Malays—developers are even obliged to give them discounts on new houses—has created a culture of entitlement and dependency. Malays have stopped thinking of affirmative action as a temporary device to diminish inequality. As descendants of Malaysia’s first settlers, they now consider it a right.

The result is that a system intended to quell ethnic tensions has entrenched them. Many poorer Malays vote reflexively for UMNO, the Malay party that introduced affirmative action in the 1970s and has dominated government since then, for fear that another party might take away their privileges. With these votes in the bag, UMNO’s leaders can get away with jaw-dropping abuses, such as the continuing scandal at 1MDB, a development agency that mislaid several billion dollars, much of which ended up in officials’ pockets, according to American investigators. Minorities, in turn, overwhelmingly support parties that advocate less discrimination against them.

The ambition to improve the lot of Malaysia’s neediest citizens is a worthy one. But defining them by race is a mistake. It allows a disproportionate amount of the benefits of affirmative action to accrue to well-off Malays, who can afford to buy the shares set aside for them at IPOs, for example, or to bid for the government contracts Mr Najib is reserving for them. It would be much more efficient, and less poisonous to race relations, to provide benefits based on income. Most recipients would still be Malays. And defusing the issue should pave the way for more nuanced and constructive politics. Perhaps that is why UMNO has resisted the idea for so long. ■

Shuffling off this mortal coil



You imply that doctors lack the training to deal with end-of-life care (“Mending mortality”, April 29th). In my experience it is much more common for patients to fail to communicate what they want to their family members, who, when a patient becomes incapacitated, have to make the critical decisions. It is these family members who implore the doctors and the hospital to do everything possible to save their loved one, with whom they’ve never had a frank conversation about how they would like their final moments to play out.

DR JASON MITCHELL
Assistant professor
Emory University School of
Medicine
Atlanta

The problem with palliative care is a financial one. Doctors who specialise in this area have no highly billable procedures to offer, so expanding their numbers is a loss for hospitals. Until we can successfully reassign cost value, this essential branch of medicine is unlikely to expand. No group of doctors more completely achieves the goal of helping patients than those who focus on ameliorating the symptoms of the dying.

DR BRANDON SMAGLO
Assistant professor
Baylor College of Medicine
Houston

As you point out, the way health care is organised needs to change. In Britain almost half of people spend their final days in a hospital bed, yet the vast majority say they would prefer to be cared for in their own home or in a hospice.

Hospice UK is seeking to change the way people are supported at the end of life with a new project part-funded by NHS England. It will identify ways in which hospice-led services could better support dying people and ensure they are cared for in the place of their choice, either in a hospice, or in their home supported by a hospice.

This could reduce the number of people dying unnecessarily in hospital by 50,000 every year and significantly ease pressures on the over-stretched NHS. It has great potential to transform care for the dying and ensure that more people have “a good death” in the place they prefer.

LORD HOWARD OF LYMPNE
Chair
Hospice UK
London

As a neurologist who has cared for many dying people I applaud most of your suggestions on end-of-life care. Legalised assisted-suicide, however, decreases the incentive for hospice care (it is easier to kill them) and contributes to the misery of the dying person, who ends up feeling like a dispensable burden.

Furthermore, in America one of the main reasons for medical heroics at the end of life is that they are “free”: insurance companies and the government pay for expensive critical care. More financial individual responsibility for health-care expenses would lessen the costs while improving end-of-life care.

DR JOSEPH MASDEU
Houston

The money go round

The Free exchange column of April 15th stated that Milton Friedman’s study of the quantity theory of money (the rate of growth in the money supply) “Had gone out of fashion” by the time the financial crisis came around in 2008. Instead, you said, “The interest rate... was what mattered for the economy.” Milton was alive until 2006 and I know of no time when he and other monetarists, including the late Pro-

fessor Allan Meltzer at Carnegie Mellon, believed that the money-supply growth rate was less important, and that interest rates are instead what should be focused on.

Money-supply growth became less of a subject because of the greater difficulty in measuring it. When I was a student under Friedman, there was M1, M2, all the way up to about M8. The problem was that a number of different instruments became the equivalent of money, and therefore it was hard to measure the right measure of money-supply growth.

Furthermore, the injection of liquidity by the Federal Reserve during the economic crisis should not have resulted in a difficult situation. The way out of this is really quite simple. If the excess reserves being held by banks were permitted to be used in the economy, and thus increased the money supply substantially, you can be sure that inflationary expectations would return and interest rates would go skyward. But, that does not have to happen. The Fed can keep these excess reserves illiquid by paying a sufficient rate of interest on them and restricting the use of these tactics.

JOEL STERN
Chairman and chief executive
Stern Value Management
New York

What’s good for Puerto Rico

The American government’s legal impediment to taxing source income in Puerto Rico is still the island’s cornerstone for attracting foreign investment and the basis for its “best of both worlds” mantra (“To be resolved”, May 6th). The American dollar, passport and federal legal framework in a Caribbean Latin island are the other elements of the formula. Washington has not relinquished its oversight authority over Puerto Rico since 1898. Now it is blatantly doing so through an oversight board with superseding powers over local elected officials.

The governor’s tunnel vision on an unattainable political status—becoming the

51st state—would end this competitive edge. This is dangerous for the badly needed productivity recovery and growth, without which the island’s debt restructuring will fall comically short of being an adequate solution to the crisis. Numerous drug firms that keep their principal place of operations in Puerto Rico are still convinced, but they would be less so if their gains became subject to Uncle Sam’s grasp.

JAVIER INCLÁN
San Juan, Puerto Rico

Spending a penny

Many moons ago Lyndon Johnson was widely quoted as justifying his unwillingness to sack J. Edgar Hoover as the head of the FBI, on the ground that “it’s probably better to have him inside the tent pissing out, than outside the tent pissing in.” Fast forward to 2017 and Donald Trump, confronted with an only sporadically incontinent director of the FBI, suddenly decides to dismiss him at a moment’s notice (“Biting the hand that made him”, May 13th). Following that defenestration, James Comey is now well and truly outside the tent. In these new circumstances, he can, one assumes, fairly be excused for responding to calls of nature as and when they arise.

NICHOLAS MACCABE
Zurich

Britain left out in the cold

Ted Stroll suggested that Britain should become a new province of Canada after Brexit (Letters, April 6th). There are additional benefits to doing this. Britain would have access both to the boat-building technology of the Inuits and to the oil sands in Alberta. In this way it could have its kayak and heat it.

TOM MURPHY
Montivilliers, France ■

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VICE-PRESIDENT and CHIEF FINANCIAL OFFICER

Duty Station: Abidjan, Côte d'Ivoire

Established in 1964, the African Development Bank is the premier pan-African development institution, promoting economic growth and social progress across the continent. There are 80 member states, including 54 in Africa (Regional Member Countries). The Bank's development agenda is delivering the financial and technical support for transformative projects that will significantly reduce poverty through inclusive and sustainable economic growth. In order to sharply focus the objectives of the Ten Year Strategy (2013 – 2022) and ensure greater developmental impact, five major areas (High 5s), all of which will accelerate our delivery for Africa, have been identified for scaling up, namely; energy, agro-business, industrialization, integration and improving the quality of life for the people of Africa. The Bank is seeking to appoint the Vice President and Chief Financial Officer who will be part of the senior management team that is leading the successful implementation of this vision.

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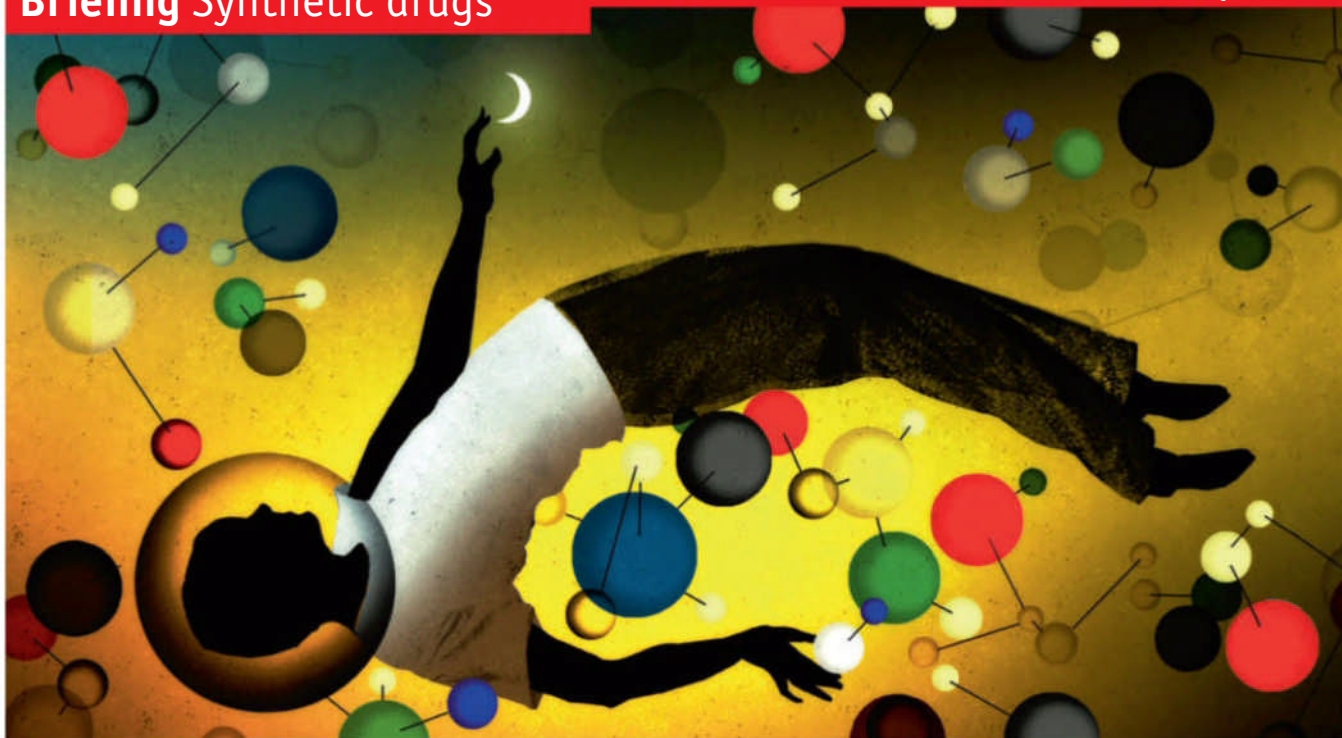
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Expanding universe

AMSTERDAM

Globalisation, the spread of pharmacological know-how and the dark web have made more mind-altering substances available than ever before

INSIDE a brightly lit shop in Amsterdam half a dozen people inspect the wares. Alongside the bongos, vibrators and heart-shaped key rings in its glass displays are rows of small silver packets emblazoned with names such as “Herbal Speed”, “Trip E” and “Liquid Bliss”. Four capsules of “Space Trips” will “take you to the moon and back” for €12.50 (\$13.30). There are 160 coffee shops in this city where marijuana can be bought and smoked perfectly legally. But as these shiny packets bear witness, there is also a thriving market for “legal highs”, synthetic alternatives to drugs such as ecstasy or cocaine.

Humans have always sought to intoxicate themselves. For millennia they had only what could be reasonably easily coaxed from poppies, grapes, mushrooms and the like to help them in their endeavours. In the 19th century chemistry allowed the chemical compounds that had made such things worth seeking out to be purified and marketed. New drugs from the laboratory, such as ether and nitrous oxide, found a role in “laughing gas” parties and “ether frolics” well before they were pressed into medical service as anaesthetics.

The 20th century saw new drugs created from scratch: amphetamines, barbiturates, benzodiazepines and more. It

also saw a far more spirited, if often fruitless, policing of the line between drugs-as-medicine and drugs-of-choice—a line that was in many cases drawn according to the sort of people who chose to use the drug, rather than any essential danger it posed. These prohibitions rarely improved public health or public order; but they did encourage some of those who served the markets on the wrong side of the line to investigate the potential of molecules similar to those in existing drugs but not yet subject to any sanction.

As the 21st century took off, so did the sale of these new drugs. At the turn of the century the UN Office on Drugs and Crime (UNODC) recognised only a handful of “new psychoactive substances” in use around the world. By 2008 the number was up to 26; by 2014 it was 452; in a UNODC report to be published this summer the total is expected to reach 700. Most do not stick around, appearing on the streets or in the head shops where drug paraphernalia is sold only for a few months; but 80 or so have spent years on the market. Never before has there been such an array of pills, gases and liquids available for people to swallow, inhale or inject.

New compounds such as those in that Amsterdam shop make up only a very small fraction of the global drugs trade. But

in their profusion, in the way that they blur the distinctions between the legal and the illegal, and in the unintended consequences that can follow when one sort of high is traded for another, they offer a window into its future.

It is easier to set up a clandestine laboratory, or even a fully fledged pharmaceutical factory, than ever before. As a result the world now has an innovative infrastructure capable of developing synthetic variations on established druggy themes with ease, whether it is to circumvent laws on ecstasy in Europe or to meet the rocketing demand for opioids in America.

Bigger bangs

Almost all these new drugs are intended to replicate the effects of older stimulants, hallucinogens, depressants and the like. Yet their changed molecular structures mean that their effects are different—sometimes subtly so, sometimes dramatically and dangerously so. Some of them, in some circumstances, may well offer real as well as legal benefits with respect to the originals: a more enjoyable high, say, or a milder portfolio of side-effects. But two drugs which, in molecular theory, look quite similar can differ a lot in practice—with one more addictive, say, or easier to overdose on.

At the moment illicit manufacturers and drug-dealers do not know how people will react to the drug until it hits the market, and the full impact may not become visible for a long time afterwards. It is hard to see how to reduce the harm which can be done, let alone maximise possible benefits, in a world where prohibition remains a default, but ineffective, response to many ►►

▶ broad categories of drug.

As the market for new psychoactives took off in the 2000s, the main selling point was that very prohibition: legal highs could be sold openly in head shops (which boomed as a result). According to Fiona Measham, a drug specialist at Durham University, the new highs were particularly appealing to 30-something professionals, such as teachers, who would lose their jobs if found with illegal substances.

In some places a new spirit of experimentation emerged, particularly among “psychonauts”, mostly educated young men, excited by the chance to ingest new substances and discuss their explorations with others. Earth, the pseudonymous co-founder of Erowid, an encyclopedic online resource on drugs and their effects, sees it as a modern-day equivalent of “Amazonian residents tasting the bark of various trees in combination with the leaves of every plant to test their effects.” In the 2010s the rise of the “dark web”, which can be accessed through encrypted browsers such as Tor, made the new synthetic drugs pretty easy to purchase even after the authorities got around to prohibiting them.

One result of this experimentation is that a handful of new drugs have been found to be just as good, if not preferable, to older illicit substances. Take mephedrone (4-methylmethcathinone), which became popular among European clubbers in the mid-2000s. Ecstasy (MDMA) was in short supply at the time, recalls Tibor Brunt at Trimbos, a drug-research centre in Utrecht, and what was available was of poor quality; mephedrone and 4-FA (4-fluoroamphetamine, another clubbing drug) were legal ways to fill the gap. According to a 2016 study from the Autonomous University of Barcelona, mephedrone users report “euphoria, stimulation, alertness, empathy, sociability, talkativeness, intensification of sensory experiences and light sexual arousal”, which makes it sound pretty much indistinguishable from MDMA.

At first the new drugs were often passed off as MDMA, but they soon came to be sold for what they were and their merits—for mephedrone, a shorter high and a more mellow comedown—appreciated. According to a 2014 paper by Mr Brunt and his colleagues, once 4-FA had become established 77% of users took it for its effects, not because of its legal status. This suggests that even though, this April, it became illegal in the Netherlands, it will still be widely taken, just as MDMA is.

Not many new psychoactives, though, earn a place in the market through merit-based competition. The origins of synthetic cannabinoids, which target the same aspect of brain chemistry as THC, the main active compound in marijuana, and fentanyl, an opioid, date back to the late 1950s and early 1960s, when the pharmaceutical

industry was looking for new medicines of all sorts. Fentanyl found a niche in pain management; the early synthetic cannabinoids had “such a mind-blowing effect”, recalls David Nutt of Imperial College London, that the companies never took them to market. Today both are widely abused as more available, and more potent, substitutes for other drugs.

Synthetic cannabinoids sold in Europe and America as “Spice”, “K2” and “Black Mamba”, among other names, are mostly produced in China; in some cases their synthesis is perfectly legal. They are then shipped to Europe and America in the form of powders; there they are mixed with solvents and applied to dried leaves—tobacco, marshmallow and tomato are popular.

Successive attempts to crack down on them by governments have led producers to tinker with the molecular structures ever more, removing them ever further from THC. This makes them a far more heterogeneous group of drugs. According to Oliver Sutcliffe, a chemist at Manchester Metropolitan University, four different synthetic cannabinoids appeared in Manchester over a period of five weeks earlier this year, with the concentration of the active component in different batches varying by a factor of ten. But the drugs all looked identical.

The effects of these synthetic cannabinoids can be very different from those of ordinary cannabis. Some users start stumbling around zombie-like after taking them, though these catatonic effects typically wear off after 20 minutes or so. Some other effects—though not necessarily the high—can last a lot longer than those of cannabis, says Paul Dargan, a toxicologist at Guy’s and St Thomas’ Hospital in London. The drugs can cause convulsions; some have led to cardiac arrest. Unpleasant withdrawal symptoms are common.

Unsurprisingly, this is not very appealing to people with access to alternatives. In Amsterdam few of the head shops selling “legal” or “herbal” alternatives to ecstasy

and stimulants find it worth their while to sell synthetic cannabinoids. A 2015 report from the Drug Policy Alliance, an NGO based in New York, found that arrests for synthetic cannabis in Colorado dropped by half when stores selling legal marijuana opened in 2014.

But synthetic cannabinoids do have their selling points. They are often strong; they are often cheap; and they don’t show up in urine tests. A listing on the dark web for “Dank Tobacco Spice” boasts that users can get high “in front of the police the Boss Your Mom The Judge Probation and Parole Officers and never get detected”. Synthetic-cannabinoid use is rife in those American homeless shelters in which urine samples are mandatory. They are also by far the most widely used drugs in British prisons, where a spate of recent riots has been linked to them. One person who works in those jails says that when he smells cannabis being smoked behind bars he immediately feels more at ease; not only will the inmates be less aggressive, but any symptoms will be far more predictable.

Dark matter

The rise of fentanyl followed a similar, but more deadly, trajectory. Illicit fentanyl first started to appear in the 1980s, according to Michael Evans-Brown of the European Monitoring Centre for Drugs and Drug Addiction in Lisbon. It was soon linked to a spate of deaths, and disappeared. Over the past five years, though, fentanyl and a range of relatives and lookalikes have made a comeback. Aggressively marketed pharmaceuticals such as OxyContin have led to an epidemic of opioid addiction in America, and those addicted sometimes turn to illegal opioids as an alternative to highly priced and sometimes strictly policed medical ones. As well as heroin, they can now get hold of as many as 30 variants of fentanyl (of which only 19 are controlled substances under federal law).

Fentanyl is powerful—50 to 100 times stronger than morphine. Some of its relatives are more potent yet. “If you are buy- ▶

Stepping up

New psychoactive substances reported to the UNODC each year, worldwide

2009
Drug overdoses surpass car accidents as the leading cause of accidental death in America

2010

British government makes mephedrone illegal

2011

In Europe, almost 1.6 tonnes of synthetic cannabinoids are seized (from 21,495 individual seizures)

2012

America outlaws several synthetic cannabinoids

2013

Drug overdoses in America overtake gun deaths

2015

China schedules 116 synthetic drugs

April 2016

Prince, a musician, dies of an accidental fentanyl overdose

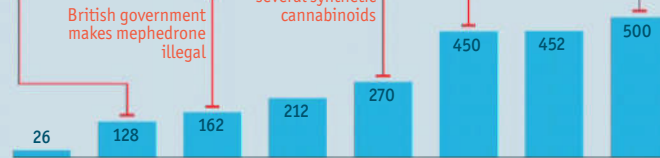
May 2016

British government passes the Psychoactive Substances Act

March 2017

China adds four fentanyl analogues to its banned list

Donald Trump appoints New Jersey governor Chris Christie to run an opioid task force



Sources: UNODC; European Monitoring Centre for Drugs and Drug Addiction; Centres for Disease and Prevention; *The Economist* * Estimate

ing this for resale and selling it on as fentanyl I advise you cut this to ensure you do not harm your clients,” says a dark-web seller of one called carfentamil, and he is not kidding: a single gram of the stuff can make tens of thousands of doses, according to Mr Evans-Brown.

Such concentrated oomph means that lucrative quantities can be shipped in very small packages. In March an investigative report by the *Globe and Mail*, a Canadian newspaper, revealed that fentanyl was being shipped in from China inside silica-desiccant packets packaged with urine-test kits. Because the packets weighed less than 30 grams, Canadian border guards were not allowed to open them without getting the permission of the recipient.

Potency not only makes smuggling easier: it makes dealing more profitable. According to an official from America’s Drug Enforcement Administration, quoted in the House of Representatives earlier this year, a kilo of heroin can be purchased for roughly \$6,000 and sold wholesale for \$80,000 before fetching a few hundred thousand dollars on the street. The price for a kilo of fentanyl might be \$3,500-5,000; stretched out into 16-24kg of product it might be worth \$1.6m.

The potency makes overdosing very easy, and fentanyl overdoses are harder to treat than those of other opioids. In 2015 over 9,000 people in America died from a synthetic opioid overdose. In Ohio, one of the worst-affected states, fully 62% of those who recently died from a heroin or fentanyl overdose had been prescribed at least one opioid painkiller in the previous seven years.

The response of rich-world authorities has mostly been more bans. Initially governments outlawed one substance after another, playing a game of whack-a-mole with producers, who would add molecular tweak after molecular tweak. “We have created a hydra phenomenon,” says Kenneth Tupper, of the British Columbia Centre on Substance Abuse. “You cut off the head of the beast and eight more pop up.”

As a result, broader laws have also been put in place. In 2010 Ireland introduced a blanket ban. In America the Synthetic Drug Abuse Prevention Act of 2012 banned “cannabimimetic agents”, as defined by the effects they have on the brain. Last year Britain passed a sweeping piece of legislation which outlaws anything that has “psychoactive effects”—altered perceptions of time and space; hallucinations; changes in alertness; enhanced empathy; drowsiness—along the lines of those provided by older illicit drugs.

These broader bans have not worked much better. In Ireland head shops closed down but the use of these drugs did not: according to a Eurobarometer survey, some 22% of those aged between 15 and 24 had taken a new synthetic drug in 2014, com-

pared with 16% in 2011. In British prisons the price of Spice and its variants has actually come down since the ban was put in place, defying the rules of the market, according to one person who works in them. Some bans may have done real harm. A 2016 report from the Beckley Foundation, a British research and lobby group, suggests that the government’s addition of mephedrone to the schedule of controlled substances in 2010 may have led to a brief rise in deaths from cocaine.

Light and darkness

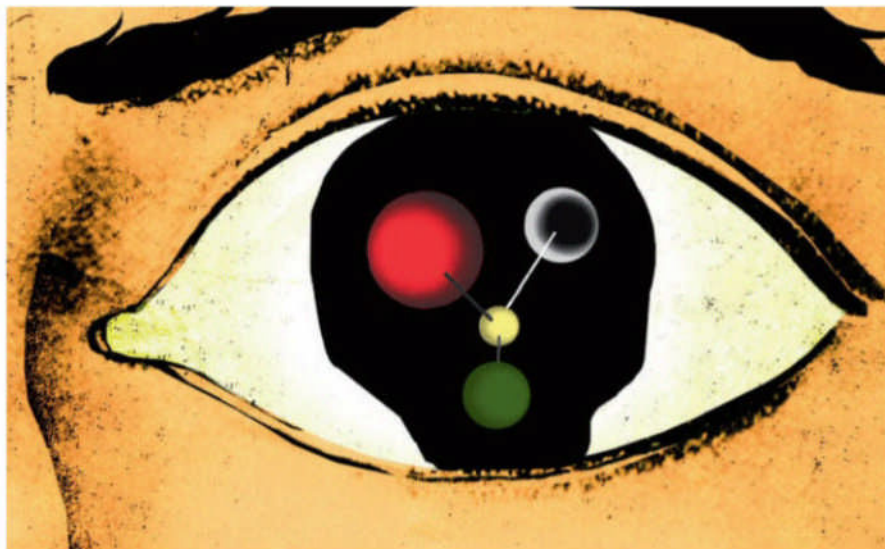
An alternative approach is to try and stamp out the drugs at their source. In 2015 China regulated 116 synthetic drugs, including several fentanyl derivatives; in March this year it added four more to its list. Yet in the same year the UNODC found that over a hundred new drugs had been synthesised. And suppressing fentanyl in China may just push it elsewhere: drug cartels in Mexico have incentives to try and find scientists to synthesise these drugs, considering the profit margins. American politicians also talk of clamping down on international post in order to try to detect these drugs more effectively; but it is doubtful that this will catch all of the fentanyl making its way into the country, especially as it can be carried on people rather than in parcels. Such a policy is more likely to lead to ever more inventive ways for dealers to smuggle it in, and to increase the incentives for discovering variations that are as potent as possible.

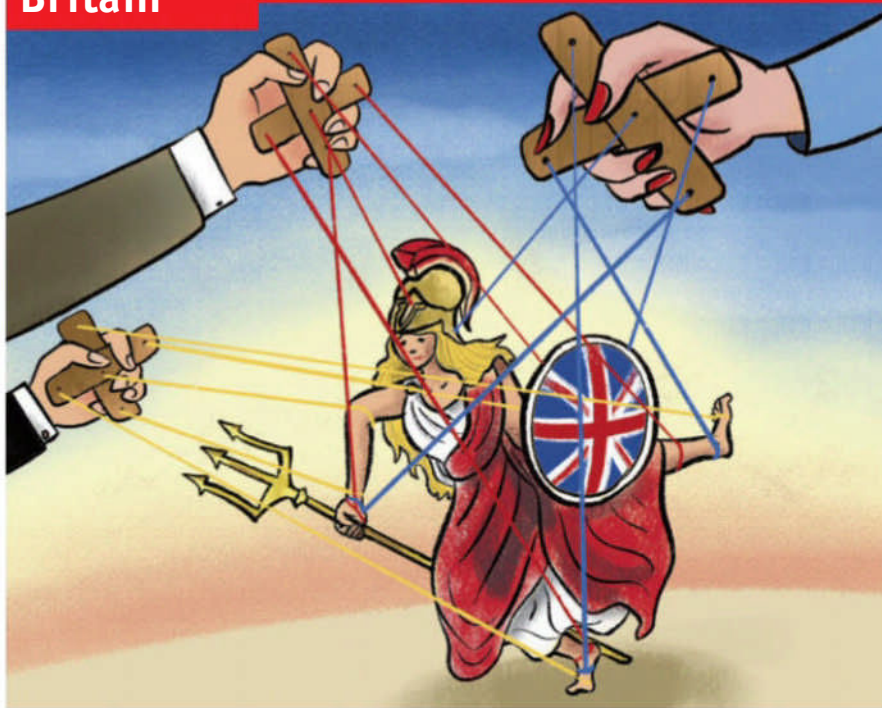
A more enlightened response would be to explore the possibility that some of these drugs might, in some settings, be comparatively benign, and that if that is the case then making them more easily available might make sense. New Zealand—where, given the distance from other drug markets, new synthetics are particularly popular—looked at such an approach in 2013 with a plan to regulate, rather than

to simply prohibit, some new drugs. The rules allowed manufacturers of new psychoactive substances to apply for permits; if after a year-long clinical trial their drugs were found to be “low risk”, they would be allowed to sell them to people over the age of 18. Yet this soon fell foul of other legal problems, with an anti-vivisection society successfully lobbying to ensure that the drugs in question, unlike those intended for medical use, could not be tested on animals. Robbed of ways of demonstrating a compound’s safety, the plan stalled.

In theory, the profusion of new drugs, and of psychonauts willing to try them, offers an opportunity to rethink various aspects of drug policy. The wheat could be sorted from chaff, drugs with lower risks distinguished from those with higher risks, compounds with possible medicinal merit singled out for further development. In practice, though, as long as prohibition dominates the responses, the opportunities for new knowledge will be scarce—perhaps more so than ever. Mr Nutt, a former British government adviser and a critic of current policy, complains that the sweeping British ban has made the study of psychoactive substances harder. It also means that academic research groups may find that drugs in their laboratories which were previously perfectly legal have become illegal, further hindering research.

The boom in synthetic drugs has given consumers more choice; some of its products may be genuine improvements on their predecessors in some settings. But it has also provided dangerous and poorly understood products to people who are often already marginalised. A willingness to re-examine current policies would reap dividends. At present, though, the new substances add to the confusions and contradictions of the old system—which, in the case of American federal law, treats the fentanyl which is killing thousands as less of an issue than marijuana. ■





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Our election blog can be found at:

Economist.com/blogs/speakerscorner

Election manifestos

The state is back

The three main parties are proposing very different policies. Yet they have a common thread: a more intrusive role for government

AS THE old saw has it, nobody reads party manifestos. Most voters have made up their minds, and undecideds choose on the basis of leadership, not election pledges. Yet manifestos matter, for two reasons. One is that they count in government, especially when, as now, there is no majority in the House of Lords (by convention, the Lords do not oppose manifesto commitments). The other is that manifestos are a guide to parties' philosophy.

The first impression from this week's Labour, Liberal Democrat and Conservative manifestos (the third emerged as we went to press) is of clear blue water. Labour is proposing big spending increases, financed mainly by sharp rises in taxes on companies and the rich (defined as earning above £80,000, or \$104,000, a year). The Tories are more frugal, though they are dumping their commitment not to raise income tax and national insurance contributions; they are also alone in not guaranteeing the "triple lock" for state pensions. The Lib Dems are in the middle: more spending than the Tories, less than Labour.

Policy differences exist also over education, health and social care (for which the Tories propose to make the rich elderly pay more), as well as on Britain's exit from the European Union. Here Labour makes its priority the economy and jobs. The Tories'

emphasis is on controlling immigration and escaping the European Court of Justice. And the central plank of the Lib Dem manifesto is a second referendum on a Brexit deal, with continuing EU membership as a clear alternative. In this election, in short, voters can hardly complain that they do not face genuine choices.

Yet, beyond the headlines, what emerges more strikingly are the common themes. One is the absence of much mention of the budget deficit. Torsten Bell of the Resolution Foundation, a think-tank, points out that in 2010 and 2015 this was the central issue; as the deficit has fallen, so has its political salience. Yet given the risks associated with Brexit, and fears of a possible future recession or another market crash, a continuing large deficit and a public debt of 90% of GDP ought to be of greater concern than they are.

A second is how little appetite there is for cutting taxes, rolling back regulation and lightening burdens on business. All three parties seem, instead, to want to increase the state's role in the economy. None of the three leaders seems to be a true economic liberal, including the nominally liberal Tim Farron. They appear to share the notion that markets need more curbs, not more freedoms. As one observer puts it, this week's manifestos show that all

have, to some degree, reverted to a pre-Thatcher way of thinking about the economy and free markets.

This is most obvious in the case of Jeremy Corbyn, Labour's leader. His manifesto does not just propose a lot more spending, but also an extensive programme of renationalisation, including Royal Mail, the railways and the water companies. For all Labour's insistence on fiscal responsibility, there is little sign of how to pay for all this: a current budget balance is not a budget balance, and there are good reasons to question the revenues likely to be generated from higher income and corporate taxes. Labour also proposes new rights for workers and trade unions and measures to curb top salaries, including an "excessive pay levy" on companies that have very highly paid staff.

This is the most left-wing manifesto that Labour has proposed since Michael Foot's notorious "longest suicide note" of 1983, even if many details are less loony than then: no import or capital controls, for instance. Oddly for a leader whose main interest is foreign affairs, Mr Corbyn is strikingly moderate in this area. His manifesto pledges to maintain the nuclear deterrent, supports NATO and promises to stick to the target of spending 2% of GDP on defence, all policies that contradict what Mr Corbyn himself has stood for in the past.

Yet it is Theresa May's manifesto that is most interesting, and not just because she is on course for victory on June 8th. For it reveals a Tory leader whose instincts are more interventionist than any predecessor since Edward Heath in 1965-75. To deal with complaints about energy prices, she joins Labour in proposing price caps. She promises a new generation of council houses, al- ▶▶

▶ though she is cagey about how to finance it. She also backs a higher minimum wage, albeit smaller than Labour's.

Mrs May is promising not just to retain all EU rights for workers after Brexit, but to add to them. Her manifesto includes several digs at business, including demands for more transparency on executive pay and some form of worker representation on boards. As Paul Johnson of the Institute for Fiscal Studies, another think-tank, notes, the biggest example of her interference in the market concerns immigration (see next story). She restates the target of cutting the net figure below 100,000, from almost three times that today, and she makes clear that the cost of policing lower EU migration must fall on employers.

In part what Mrs May is doing is merely tactical. On Brexit and immigration, she wants to mop up voters who formerly backed the UK Independence Party. On so-

cial and employment policies, she hopes to steal Labour moderates. Judging by the polls, she is doing well on both fronts. Yet her manifesto also reveals a new Tory paternalism, no longer aiming to reduce the reach of the state but instead pursuing an interventionist strategy.

What is oddest about this is not its break from the past, but its timing in relation to Brexit. Mrs May is pursuing a "hard" Brexit that involves leaving the EU's single market. If business is to thrive and new investment to be attracted in the uncertain world that this will create, a more logical move would be to reduce intervention, cut red tape and lower taxes. To choose this moment to move closer to a continental European model of more regulated markets is not just perverse but risky. No wonder business is lukewarm about Mrs May's manifesto—and about its own prospects in a post-Brexit Britain. ■

the world has proved difficult. Recent court rulings mean that tightening the restrictions on family visas and refugees will be tricky. Mrs May now plans to charge firms higher fees for hiring skilled foreigners. Not only would this hurt businesses, it would make it harder to secure post-Brexit trade deals. India, for example, has already made clear that any trade agreement would have to include some concessions on migration.

Why stick to this foolish target? Rob Ford of the University of Manchester suggests three reasons. First, Mrs May might worry that abandoning the commitment could jeopardise her chances of hoovering up the votes of one-time supporters of the anti-immigration UK Independence Party. Second, voters do not trust the government when it comes to immigration (two-thirds think it unlikely that the Tories would reduce net migration by very much). The prime minister may worry that, implausible as her goal seems, dropping it would erode that trust still further. Third, Mrs May has invested time and labour in the issue, having grappled with it for six years as home secretary.

A fourth possibility is that she envisages a deep post-Brexit recession, which would cause immigration to dry up.

The target might be fudged. Tailored visa programmes for particular industries could exclude crowds of migrants from the figures, if they were rejigged to look only at long-term stayers. Four-fifths of Britons would be happy for doctors from the EU to be given special visas, according to an Ipsos MORI poll. (Only two-fifths would award them to bankers.) But with the government apparently unwilling to discount foreign students from the statistics, despite the public's affection for them, carve-outs for particular industries seem unlikely.

If the prime minister fails on her pledge, trust in her and her government could erode. Mrs May's claims to have got the best Brexit deal might be met with scepticism from Brexiteers, many of whom see reducing migration as the main reason for leaving the EU. Disappointed former UKIP voters could even be seduced by nastier political forces.

Yet the graver danger is that Mrs May succeeds. The economic damage would be considerable, not least in the impact on the public finances. The current migration flow works in Britain's favour. The country exports expensive pensioners and imports mostly young, healthy, taxpaying foreigners. The government's fiscal watchdog reckons that by the mid-2060s, with net migration of around 100,000 public debt would be about 30 percentage points higher as a proportion of GDP than if that number were 200,000. Of all the prime minister's promises, Britons must hope that her vow to cut immigration is one she is willing to break. ■

Immigration

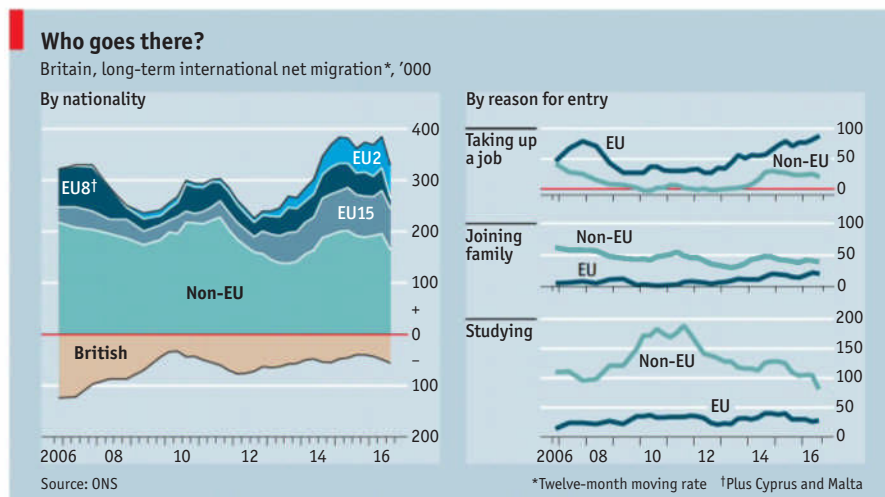
A promise worth breaking

The Tories' plan to cut immigration by two-thirds would be highly damaging

THE uncertainty created by Brexit makes it hard to draw up concrete policies in many areas. But Britain's imminent departure from the European Union has changed the context for one issue in particular: immigration. Labour's manifesto is cautiously vague, promising "fair rules" and reasonable management. But Theresa May has reiterated one long-running Conservative promise: to bring net migration (immigration minus emigration) to below 100,000 a year. This commitment, and the party's ongoing failure to fulfil it, has hurt the Tories in the past. That makes their dogged adherence to it all the stranger.

David Cameron introduced the pledge in 2010 in an effort to win an election. The ploy worked—but he got nowhere near meeting the target. Mrs May is only slightly more likely to succeed. Until now the Conservatives have been able to blame the EU, whose rules on free movement mean that much immigration to Britain is beyond the control of the government. After Brexit, cutting migration from Europe will be possible. But even if Britain banned all immigration from the EU—which would be ruinous—net migration would remain above 100,000 (see chart).

Cutting the numbers from the rest of



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Education and social mobility

Old school

Ditching tuition fees and opening grammar schools could help rich children at the expense of poor ones

HERESA MAY and Jeremy Corbyn do not have much in common. Yet both are offering education policies focused on improving the chances of children from poor families. Mr Corbyn's Labour Party manifesto includes a promise to abolish tuition fees, levied by most universities at £9,000 (\$11,600) a year. Mrs May plans to introduce new grammar schools, which are allowed to select pupils at 11 on the basis of scholarly talent.

Both policies will win votes: polls suggest that people quite like grammar schools and greatly dislike tuition fees. That is partly because both ideas hark back to a post-war golden age of social mobility, in which bright, poor children could take the 11-plus entrance exam to win entry to a good school, before proceeding to a free university and, later, a career in business, government or science.

Yet, in truth, the post-war years of upward mobility had more to do with the changing structure of the labour market than educational institutions. And the evidence suggests that both policies will probably fail to improve social mobility.

Take fees first. The Labour manifesto argues that there "is a real fear that students are being priced out of university education", but provides flimsy evidence to support the claim. Although, as it notes, the number of students has fallen this year, that reflects a fall in the 18-year-old population, Brexit's deterrence of foreign applicants and the abolition of bursaries for

those on nursing and midwifery courses. The reality is that the gap in higher-education attendance between rich and poor students has narrowed since the government tripled the amount that universities were allowed to charge in 2012.

Shifting funding from the state to students enabled the government to remove limits on the numbers universities could admit. The resulting increase particularly benefited poor students. In Scotland, where tuition is free and a cap on student numbers remains, the growth in university attendance in deprived areas has been slower. In England loans are available to pay for tuition and are paid back only once a graduate earns more than £21,000 a year. Since outstanding debts are forgotten after 30 years, almost three-quarters of graduates will probably never fully repay their loan. Thus the abolition of tuition fees would mostly benefit high earners. The Institute for Fiscal Studies, a think-tank, estimates the policy would cost £8bn a year.

Likewise, children from well-off families are the main beneficiaries of Britain's 163 existing grammar schools. According to research published last year by the Education Policy Institute, another think-tank, children at grammars score one-third of a grade higher in each of their GCSE exams, which are taken at 16, than do those at comprehensive schools. Yet few poor children pass the entrance tests: just 2.5% of children at existing grammars receive free school meals (a proxy for poverty), compared

with 8.9% at nearby state schools. And those at comprehensive schools near grammars do worse than their peers elsewhere, partly because grammars attract the best teachers.

There are ways to increase the number of poor pupils at grammar schools: from creating entrance tests that are harder to prepare for to mandating a certain number of places for children on free school meals. But those children who failed to make the cut would still do worse than they would under a comprehensive system. Studies have demonstrated that selection at 11 does not improve overall results: it merely changes the distribution of good grades.

Both Mrs May and Mr Corbyn say that a desire to improve social mobility lies at the heart of their education policies. In fact, they risk doing just the opposite. ■

Tax

Let me tell you how it will be

Whoever wins the next election, taxes are likely to go up

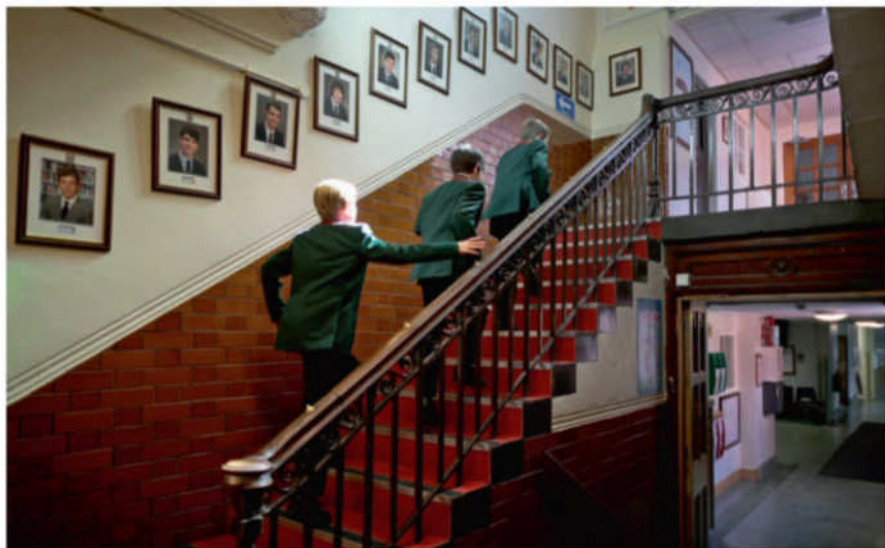
TO FINANCE the many costly promises in its manifesto the Labour Party would need to increase taxes significantly. It has promised a steep rise in corporation tax and a higher rate of income tax for those earning more than £80,000 (\$104,000) a year. The Liberal Democrats want to add one percentage point to each band of income tax to pay for extra spending on health care.

The Conservatives, by contrast, like to portray themselves as the party of low taxes. On the campaign trail Theresa May has talked of her low-tax "instinct". But she has left the door open to higher taxes, in contrast to her party's promise in 2015 not to increase income tax, VAT or national insurance contributions (a payroll tax which Philip Hammond, the chancellor of the exchequer, is keen to raise).

Regardless of the parties' manifestos, a look at Britain's accounts makes one thing clear: whoever wins on June 8th and whatever promises they make now, in the coming years the tax burden is likely to rise to its highest level in decades.

When the Conservatives came to power in coalition with the Lib Dems in 2010, the government was running a budget deficit worth 10% of GDP. As ministers went about reducing the deficit in the parliament of 2010-15, most of the adjustment was borne by cuts to public spending rather than by tax rises (see chart on next page).

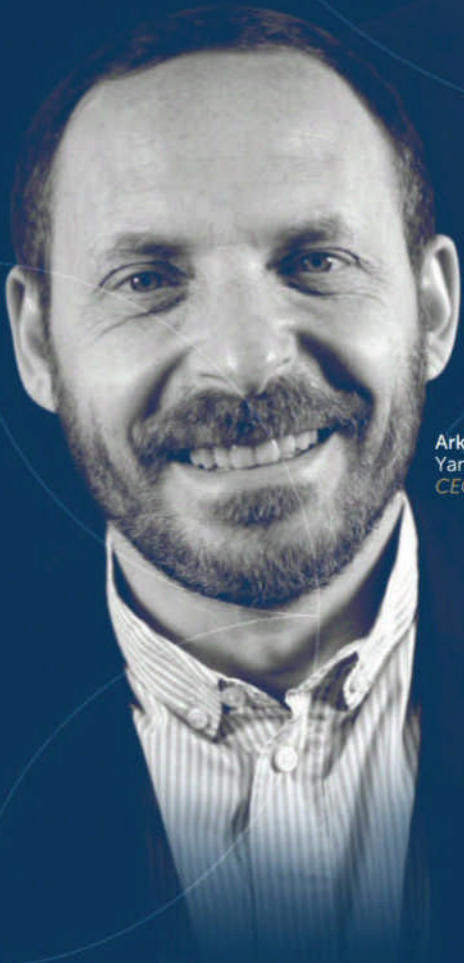
A number of departments, such as health, education and international development, have been largely spared the axe. ►►



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▶ But others, such as work-and-pensions and transport, saw real-terms cuts of more than a third in 2010-16. Real spending on public services has fallen by 10% since 2009-10, the longest and biggest fall in spending on record. This brought the budget deficit down to 4% of GDP in 2015-16.

Departments can make efficiency improvements up to a point, but eventually ever-smaller budgets make it difficult to provide core services. From prisons to the National Health Service, measures of performance started to go south from around 2014, according to a recent report from the Institute for Government, a think-tank. The rate of child poverty, which fell during the 2000s, is now rising sharply, in part because of big cuts in working-age benefits.

Since the election in 2015 the government has subtly adopted a new approach to austerity: less emphasis on spending cuts, more on tax rises. In the average budget or autumn statement since then, the government has called for tax rises four times as big as the average in the parliament of 2010-15. Granted, the personal allowance for income tax has risen. The headline rate of corporation tax has been cut. Yet increases in less-noticed charges such as environmental taxes, stamp duty (a levy on property transactions) and insurance-premium tax (levied on everything from holiday to vehicle insurance) have more than compensated.

Mr Hammond is fast gaining a reputation as a tax-grabber. In his first budget in March the chancellor pencilled in a reduction in the tax-free allowance for dividend income from £5,000 to £2,000. He also proposed an increase in the national-insurance contributions paid by the self-employed—though this was hastily, and embarrassingly, withdrawn after an outcry from newspapers and Tory backbenchers.

In all, following recent revisions to official economic forecasts, it is now expected that in 2018-19 the tax burden, expressed as a percentage of GDP, will be at its highest level since the mid-1980s. Mrs May's "instinct" may well be to lower taxes, but she cannot help being bound by Britain's unfor- giving fiscal arithmetic. ■



Social care

A death tax by another name

The Tory answer to social care is to pass much of the cost on to the children

AS BRITONS get older and iller, somebody has to pay more to look after them. Yet recent cuts in local-authority spending on social care have turned this into a huge problem for the National Health Service. Inadequate social care has led to bed-blocking in hospitals by elderly patients. Theresa May's Tory manifesto commendably seeks to tackle this problem. But in doing so it will create winners and, more awkwardly, losers.

Under today's policy in England the state pays the social-care costs only of old people with assets of less than £23,250 (\$30,000). For those in a care home, the £23,250 limit includes the value of their house; for those being looked after at home, it does not. The Tories plan to raise the asset ceiling to £100,000, paid for in part by means-testing the winter-fuel payment, a quaintly named welfare benefit for elderly folk. But the ceiling will now include the value of the home, no matter where care is provided. The manifesto promises not to force people to sell their properties while they (or their partners) are alive. Instead their social-care costs will be recouped on death.

The raising of the asset ceiling will help a lot of people, including most notably those already receiving residential social care. But including the value of homes for all, at a time when the average house price in England is £230,000, will hit many more. When Labour first proposed a similar scheme in 2010, the Tories dismissed it as a "death tax". Now, as so often with Mrs May's manifesto proposals, she has brazenly purloined their idea.

Supporters of the plan argue that it is only fair to get the wealthy elderly to pay

for more of their own care, even if the bill is deferred. Mrs May will also be praised for being prepared to shift the balance of public policy away from favouring the old against the young. Means-testing of the winter-fuel payment and scrapping the "triple lock" that guarantees the value of the state pension will be seen as evidence that the Tories now feel confident enough no longer to indulge a group that overwhelmingly votes for them.

Yet there will be plenty of critics of the plan. It inverts the proposal first put forward in the Dilnot report in 2011, which suggested putting a cap of £35,000 on all social-care costs, above which the state would pick up the bill. The Tories had accepted this idea but put the ceiling up to £72,000. The idea was, in effect, to pool the risks of high social-care costs across the whole population. Sir Andrew Dilnot hoped this would encourage a private market for social-care insurance. But without a cap on social-care costs, that seems unlikely. Sir Andrew said this week that he was "very disappointed" in the Tories' plan and that a majority of people receiving care would be worse off.

The new policy at least tries to deal with the mounting crisis in the social-care system and relieve pressure on the NHS. But it does so by passing the cost on to the children of parents who happen to be sickest or most in need, rather than spreading the burden. A fairer way of doing that, and capturing some of the windfall gains from rising property prices, would have been to increase inheritance tax for all. But that would surely have cost the Tories the votes of many of their strongest supporters.

Declare the pennies on your eyes

Britain, total government spending and receipts
Fiscal years ending March 31st, % of GDP



Nationalising industries

Ministers as managers

A high short-term price and higher long-term cost

LABOUR'S manifesto is as long as it is ambitious. Over 123 pages of sometimes dense prose, the party promises to "upgrade" the economy and "transform our energy systems". This would involve the nationalisation of the water system, the energy-supply network, Royal Mail and the railways. Britain's infrastructure is indeed due for an upgrade. But Labour's plans would be costly—both in the short and long term.

The first challenge would be to move privately held firms back into public ownership. The government might ultimately need to fork out over £60bn (\$78bn) for the water industry, a similar amount for National Grid (which runs electricity- and gas-transmission networks) and £5bn or so for Royal Mail. Borrowing such large amounts would put upward pressure on government-bond yields, which would ripple through the economy into mortgages and corporate-borrowing costs.

Nationalising the railways, by contrast, might not be especially costly. Network Rail, which manages the track, is already in public hands. The train companies have time-limited franchises. Once these have expired, the government could take back control at little cost. However, many of the franchises do not expire until the 2020s. And if the operating companies knew that they had no chance of holding on to them, they would surely curtail investment.

More costly than the initial price of buying back these industries would be the long-term damage done to them by placing them back under public management. National ownership in the past was characterised by chronic underinvestment and

The campaigns

Speakers' Corner



Boy jobs and girl jobs

"We have a dishwasher...As in a machine."

Theresa May seems anxious to avoid the impression she employs a migrant worker in her kitchen. Sunday Times

Managing expectations

"I don't see Labour winning...I believe that if Labour can hold on to 200 seats or so it will be a successful campaign."

Len McCluskey, leader of the Unite trade union and prominent supporter of Jeremy Corbyn, paints what would be the worst result for Labour since 1935 in brighter colours. Politico

Ambushed

"The fat cats keep the money and us lot get nothing."

Kathy Mohan, who wants her Disability Living Allowance back, confronts Theresa May on a walkabout in Abingdon. 5News

For the many policies, not the few

"We will prohibit the third-party sale of puppies...We will protect our bees."

Labour's manifesto tackles the hard issues

Weedy proposal

"Controlling the potency and taking the trade away from criminals makes sense."

Norman Lamb, the Lib Dem health spokesman, sets out plans to legalise pot

Women's Lib

"Abortion is wrong. Society has to climb down from the position that says there is nothing objectionable about abortion before a certain time. If abortion is wrong, it is wrong at any time."

Tim Farron, the Lib Dem leader, in a recently unearthed interview from 2007. Mr Farron says he is pro-choice. War Cry

Title-tattle

"We have worked together over the years—many years. Longer than we would care to identify."

Asked if the free-marketeer chancellor, Philip Hammond, would keep his job after the election, Theresa May equivocates

Bad company

"I'm not going to judge you on going to a reception with Assad and I don't think people should judge Jeremy [for] trying to talk to people who might be open to a settlement in Northern Ireland."

Emily Thornberry, the shadow foreign secretary, reminds Sir Michael Fallon that Jeremy Corbyn is not the only person to have met some dodgy characters. BBC

Will you still need me

"I think 68, as they say, is too late."

Jeremy Corbyn argues for a lower retirement age. His critics might agree: Mr Corbyn will turn 68 himself next week

inefficiency. A paper from the World Bank pointed out that investment flooded into Britain's water industry after it was privatised in 1989. Even on the railways, which passengers readily complain about, satisfaction is higher than in most of Europe.

Yet Britain's utilities are far from perfect.

On international rankings of infrastructure quality the country has slipped in recent years. Energy firms take advantage of consumers' unwillingness to switch supplier, by charging steep prices to their most loyal customers. Water bills have risen sharply in real terms since privatisation, in part to pay for higher investment.

A number of factors make Britain's utilities work less well than they could. The current system, where a "super-regulator" (the Competition and Markets Authority) shares competences with sectoral regulators (such as Ofgem and Ofwat), creates confusion. Regulations are complex; utility firms hire senior staff less for their ability to think creatively and more because they can navigate the rules.

There is a need for fresh thinking on how to solve these problems. But Labour has simply exhumed policies that were buried decades ago for the good reason that they did not work. The party's leader, Jeremy Corbyn, is often described as a radical. In fact his programme is in many ways a conservative manifesto. ■



Privatised Pat and his black and white fat cat

Bagehot | Labour is unfit even to lose

Jeremy Corbyn's lame-duck party is in no shape to form an effective opposition to the Tories



THE aim of British elections is not only to produce a government. It is also to produce a plausible opposition. Its task is to provide a check on Britain's overmighty executive, a voice for the losers in the ruthless first-past-the-post electoral system and, by holding ministers to account for shoddy legislation and bad behaviour, to act as a spur to good government. A vigorous opposition is all the more important at a time when Britain is embarking on a revolution in its relations with the European Union on the basis of a narrow result in a single referendum.

Alas, the chance of a robust opposition emerging from this miserable election campaign is vanishingly slim. The Labour Party is not so much an organised political group as a battlefield between two rival ones: Jeremy Corbyn's gang of far-left zealots and the parliamentary party of moderates. Until recently the moderates hoped that Mr Corbyn would do the honourable thing if he leads Labour to defeat and resign, leaving them to embark on the laborious work of rebuilding their party. Now it looks as if that is the last thing on Mr Corbyn's narrow mind. He is busy shoring up his base by campaigning in safe seats and redefining "success" as getting the same share of the vote that his predecessor, Ed Miliband, got in 2015. His aim may be to survive until Labour's annual conference in late September so that he can introduce a vital change in the rules for selecting his successor, reducing the proportion of MPs and MEPs needed to nominate a candidate from 15% of the parliamentary party to 5%. This would not only increase the chances of Labour's next leader being another hard-leftist but also help to shift control of the party from the MPs to the grassroots.

If Mr Corbyn stays on, the issue facing the Labour moderates will be the timing of the bloodbath. Should they wait for the party conference in September to try to dethrone the left, or strike quickly and form a separate parliamentary party after the election? Some plotters point out that they are well prepared for the conference, with lots of sensible delegates. Others argue that the far left is too entrenched and that immediate action is necessary. There is talk of a hundred Labour MPs forming a separate parliamentary Labour Party after the election. One thing is clear: holding the Conservative government to account will be a secondary concern. If Labour splits, then Theresa May will be confronted

with two warring opposition parties; if it holds together until September, she will face a divided party obsessed with allotting blame for its election defeat and fighting leadership battles.

Even if Mr Corbyn resigns it will be a long time before Labour is fit for opposition. The party will spend time finding a new leader. Possible left-wing successors include Rebecca Long-Bailey and Clive Lewis; in the centre, Yvette Cooper and Chuka Umunna are expected to stand. Sir Keir Starmer, Labour's Brexit spokesman, and Tom Watson, the deputy leader, may also run. Whoever wins will hardly have an embarrassment of talent to call on in forming an opposition. The parliamentary party is dominated by courtiers to Tony Blair or Gordon Brown who have spent their lives in politics (such as Ms Cooper) and members of political dynasties (like Stephen Kinnock and Hilary Benn).

The wilderness years have deprived Labour of bright sparks. Some high-flyers such as Tristram Hunt have abandoned political careers and others have decided not to embark on them. The party has also been deprived of ideas. The battle between moderates and extremists has been so all-consuming that neither faction has done much fresh thinking. This week's manifesto is an uneasy compromise between Ed Miliband's policies and Mr Corbyn's. Mr Blair's Labour Party held John Major's Conservatives to account because it had a self-confident leadership replete with new ideas. Whatever happens after the election, it will be years before Labour is again in that position.

What about the other opposition forces? The second-biggest is likely to be the Scottish National Party which, by its nature, is uninterested in much of the government's business in the rest of Britain. (The SNP is bad for the art of opposition because it simultaneously entrenches one-party-rule north of the border and deprives Labour of seats and talent.) The Liberal Democrats will not win enough seats to act as an alternative opposition, and may be engaged in a leadership struggle of their own given Tim Farron's mediocre performance. Lord Ashdown, a former Lib Dem leader, is among those promoting a "progressive alliance" of anti-Tory forces. But forming alliances is difficult even when the parties involved are not in chaos. And the Labour Party is too large and proud to compromise its identity by forming anything other than the loosest of pacts. The great problem with Labour is that it is too weak to win an election but too strong to cede the position of the official opposition.

Strong and unstable government

The enfeeblement of the parliamentary opposition is already generating talk about extra-parliamentary resistance. On the far left, groups such as Momentum argue that the "real" opposition must come from the streets. On the moderate left there is talk of the BBC stepping in to fill the void, or the Supreme Court or even European institutions. These ideas are noxious: the far-left version of extra-parliamentary opposition would turn Britain into the Weimar Republic and the soft-left version would politicise institutions whose authority lies in being above politics.

Yet it is easy to see why so many people are entertaining them in the face of Tory hegemony. The late Lord Hailsham, a Tory grandee, wrote that the danger of the British constitution is "elective dictatorship". Parties that win majorities have no restraint on their powers other than the ones that the opposition can conjure up. Thanks to Labour's civil war and the fragmentation of the other parties, Britain is about to engage in a period of revolutionary upheaval without the safeguard of an opposition. ■

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Spain's fractured left

Cracking under pressure

ZARAGOZA

The Socialists, threatened by Podemos, are close to coming apart

ON THE morning of May 7th about 300 members of Spain's Socialist Workers' Party (PSOE) gathered in a conference hall on the site of Zaragoza's international exhibition of 2008, across the river Ebro from the city centre. The bleak expo park with its abandoned cable car has seen better days. So has the PSOE. The party faithful were gathered to listen to Susana Díaz (pictured), the narrow favourite in a primary to elect the Socialists' leader on May 21st. Her message, delivered in an Andalusian accent and the crescendos of an old-fashioned tub-thumper, was that she alone could unite her party "so that the PSOE becomes an alternative government again".

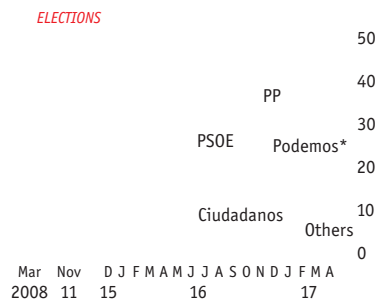
That will be no small task. After governing Spain for 22 of the 29 years to 2011, the Socialists have lost the past three general elections. Unlucky enough to find themselves in power, under José Luis Rodríguez Zapatero, when Spain's housing and credit bubble burst in 2008, they were obliged to take unpopular measures. Since then, the PSOE has lost almost half its voters to the upstarts of Podemos, a far-left party formed out of the anti-austerity protest movement known as the *indignados*.

The Socialists now face a bitter internal feud. Its outcome will not just affect the battle for supremacy on the Spanish left; it may determine whether or not the minority government of Mariano Rajoy and his conservative People's Party (PP) will last.

Ms Díaz is only 42, yet as the president of the regional government in Andalucía, the Socialists' last great bastion, she repre-

Right on top

Spain, election results and opinion-poll support %



Sources: Spanish Interior Ministry; Centro de Investigaciones Sociológicas *Includes United Left since May 2016

sents the party establishment and its traditional working-class base (her father is a plumber). She was once expected to win easily: she has the backing of nearly all the party's grandees. Her chief opponent is the PSOE's previous leader, Pedro Sánchez, who was ousted in October. He has mounted a strong bid to reclaim his job by appealing to rank-and-file members.

Party of crisis

The puzzle for the Socialists is how to regenerate themselves in the shadow of Podemos. The new radical party has won over middle-class young people in the big cities, whose expectations of ease and prosperity were dashed by the financial crisis. Apart from its bitterness at Mr Zapa-

tero's economic squeeze, this generation thinks the PSOE has become too comfortable with power. "The Spanish left is split in two sociologically and ideologically," says Manuel Arias Maldonado, a political scientist at the University of Málaga.

"Social democracy in the 21st century means a very competitive economy and very redistributive public spending," says Ignacio Urquizu, a PSOE deputy who supports Ms Díaz. Some in Podemos, by contrast, want an indiscriminate spending binge and a European version of the Kirchners' Argentina. Nevertheless, many people in both parties are struggling to define a new social contract for a globalised economy. More than policy, what differentiates them is the PSOE's sense of responsibility towards Spain's restored democracy and Podemos's populist contempt for it.

"The rational thing would be an agreement between the two forces," notes Xavier Domenèch, who leads the Catalan affiliate of Podemos. But "underlying tensions" prevent this, he adds. It may take several years of political trench warfare to determine which is the senior partner. Demography helps Podemos: the audience for Ms Díaz in Zaragoza was mainly middle-aged or older. "I think we are in a new world," says Mr Domenèch. "The economic crisis has put in question institutions that were very worn-out," including the PSOE.

The insurgents argue that a more radical left can win disillusioned voters over, but they have little evidence. At the last election, in June 2016, Pablo Iglesias, Podemos's leader, allied his party with the United Left, the former Communist Party. The alliance secured 1.1m fewer votes than its constituent parts had managed in the election the previous December, and failed to overtake the PSOE. At a party congress in February, Mr Iglesias sidelined his more moderate deputy, Iñigo Errejón. He seems determined to retreat to the hard left and the politics of permanent protest. ▶▶

▶ Meanwhile, Spain's economy has been recovering vigorously (see chart). Though Spaniards are still worried about unemployment and corruption, as the crisis recedes fewer are *indignados*. "I think Podemos is a party of the crisis, rather than an expression of the crises of parties," says Mr Arias. That should offer an opportunity to the Socialists—if they can recover from their leadership battle.

Mr Sánchez claims to be further left than Ms Díaz. In his campaign he has gestured both to Catalan nationalism (Spain should recognise that it is a "plurinational" country, he says) and to Podemos (pledging to collaborate with other "progressive forces"). Yet the differences between the two "are not really ideological", according to a former secretary-general of the party. Indeed, Ms Díaz's support was decisive in electing Mr Sánchez as the party leader in 2014, running as an economic liberal.

Rather, the battle is over power and over the party's future identity. In the manner of Jeremy Corbyn, the hard-left leader of Britain's Labour Party, Mr Sánchez promises to give power over all decisions to the members, while Ms Díaz defends the PSOE's traditional system of letting elected leaders choose its policies. Mr Sánchez has certainly been the more intransigent of the two: after leading the Socialists to electoral defeat in June 2016, he insisted on opposing Mr Rajoy's investiture as prime minister. Since that would have triggered a third election in a year, at which the Socialists seemed certain to lose further ground, Ms Díaz and other party barons ousted Mr Sánchez and allowed Mr Rajoy to form a minority government.

Mr Sánchez has campaigned by attacking this decision, saying it makes the PSOE complicit in the PP's corruption scandals. Ms Díaz replies that it was his leadership that reduced the party to just 85 of the 350 seats in the Cortes (parliament). "Pedro, your problem is you," she said this week.

Spain's Socialists are not the only European social-democratic party that is struggling to put a shine back on a tarnished

brand. Their counterparts in France and the Netherlands are doing even worse. "The main task for the PSOE is to accept that it's in a very difficult situation and act with patience," says Mr Arias. "It needs a young leader who can enthuse the rank-and-file and create a [post-crisis] ideology." Neither of the main contenders in the primary fits that bill. If Mr Sánchez wins, Mr Rajoy may engineer a fresh election to press his advantage. Even if Ms Díaz triumphs, she faces a battle to put the party back together again. Either way, as elsewhere in Europe, the clear winner from the left's divisions and introspection is the centre-right. ■



Roman monuments

Gladiator fight

ROME

Two Italian parties battle over how to run the Colosseum

THE view from the roof of Rome's city hall makes others seem inconsequential. Just a turn of the head is sufficient to take in Trajan's Column, the Forums, the Colosseum, the Palatine Hill and the Circus Maximus—all set against a backdrop of the blue-grey Apennine mountains. This may be the world's greatest, and most beautiful, open-air museum. But in the past few weeks it has become a battleground too, involving two parties with different visions of how to cope with the burgeoning number of tourists clamouring to see Italy's cultural riches.

On one side, wielding a mighty sword, is the centre-left Democratic Party (PD) and its former leader, Dario Franceschini, the arts and heritage minister in the coalition government of Paolo Gentiloni. On the other, waving a net and trident, is the mayor of Rome, Virginia Raggi of the populist Five Star Movement (M5S). In January Mr Franceschini set up an Archaeological Park of the Colosseum, which comprises

the great arena itself and most of the nearby ruins, including the Roman Forum. He has advertised for a park director, and appointed experts to sift through the 84 applications and make a choice by June 30th. Under the new arrangement, a second body separate from the park will manage the capital's remaining state-owned monuments, museums and excavation sites (except some of the more important ones, whose managers will be given the chance to run their own affairs—and the less welcome task of finding much of their own revenue). Last month, however, this extensive reorganisation was cast into doubt when Ms Raggi appealed to the courts to block it.

Partly, it is a row over cash. The Colosseum is easily Italy's highest-earning monument. In 2016 it drew 6.4m visitors and notched up ticket sales of €44.4m (\$49.5m), more than the Uffizi Gallery in Florence and the ruins of Pompeii combined. Until now, a fifth of the proceeds from the Colosseum have been distributed to less profitable heritage sites. The government spends the rest on cultural sites in Rome. Mr Franceschini insists that nothing will change under the new system: 20% of the revenue will still go to less popular sites, but the new park will keep half of it, and 30% will be spent in the rest of the capital. But Ms Raggi's deputy, Luca Bergamo, who is responsible for the council's heritage strategy, argues that the wording of the government's decree would allow it to spend part of the 50% earmarked for the new park elsewhere. Mr Franceschini calls this a lie.

Politics plays a part: an election is due by next May. After years of treading on the PD's heels, the M5S overtook it in the polls earlier this year and is still narrowly ahead. Mr Bergamo's counter-proposal is for a joint body including both the government and the city council to administer all of Rome's cultural patrimony. Though the council already manages a substantial part, including the Imperial Forums, his idea would doubtless increase its powers.

We, who are about to sell tickets

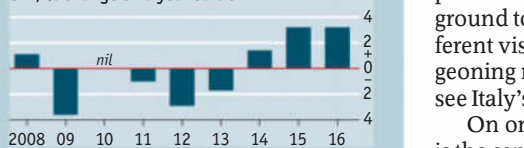
But the M5S's objections to Mr Franceschini's designs go beyond power and money. The Archaeological Park of the Colosseum is the final piece in a plan the minister has been shaping since 2014: a decentralised structure for the administration of Italy's cultural heritage. The goal is to curb the powers of the heritage ministry's regional satraps, known as *soprintendenti*, and grant more freedom to the directors of big museums and archaeological sites. Their brief is to make them more modern and lucrative. The results have been spectacular: receipts at sites managed by the state have risen by almost a third since Mr Franceschini took over in 2014.

Mr Bergamo, however, argues that ap- ▶▶

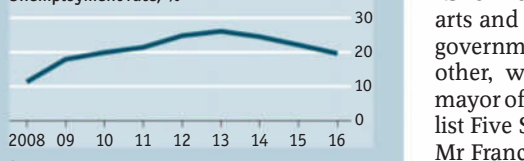
Más dinero

Spain

GDP, % change on a year earlier



Unemployment rate, %



Source: Eurostat

plying this policy to Rome would mean that resources and attention are focused on a few already well-known sights. He says this will place further burdens on the city's overcrowded centre. The unified management body he proposes would be charged with doing the opposite: spreading tourism more evenly so that visitors are drawn away to some of Rome's less-visited treasures, such as the Baths of Caracalla, the city's rich medieval architectural sites or the magnificent yet sadly neglected Au-

relian Walls.

The battle for the Colosseum may be mostly about money and politics, but Mr Bergamo has a point. While the morning view from city hall's roof is magnificent, the reality of the streets below can be gruelling. In the nearby Piazza di Venezia, parties of Chinese tourists, selfie sticks in hand, throng the pavements, ready for the latest assault on the ruins of the old imperial capital. The eternal city girds itself as best it can. ■

the Union of Turkish Bar Associations. "Justice is now vested in a judge's personal bravery," he says. Those who defy Mr Erdogan pay a high price. When one court decided to release 21 journalists accused of Gulenist sympathies from pre-trial detention earlier this spring, three of its judges were suspended. Their ruling was overturned within 24 hours.

Things are not about to get better. Under a new constitution, adopted by the thinnest of margins in a referendum in April marred by allegations of fraud, members of top judicial panels will no longer be elected by their peers but appointed by Mr Erdogan and parliament, which is controlled by the AK party. The old system allowed groups like the Gulenists to flourish. The new one places the judiciary under Mr Erdogan's thumb. According to one opposition lawmaker, out of 900 recently appointed judges, 800 have AK links. "As long as elections to top positions are not tied to objective rules, depoliticising the judiciary will be impossible," says Hasim Kilic, a chief justice at Turkey's constitutional court until 2015.

Meanwhile, cases related to the crackdown, under which some 50,000 people have been arrested and more than 110,000 fired, are flooding in. The constitutional court has received 75,000 applications for redress since the attempted coup last July, but has declined to hear any case related to the state of emergency. Instead, the judiciary seems to have other priorities. In late April a Turkish court blocked access to Wikipedia because some of its posts suggested that the government had supported jihadists in Syria. Two weeks earlier a prosecutor wildly accused several American officials, including a senator, a former CIA chief and a former prosecutor, of involvement in the coup. Perhaps Mr Erdogan's warm new relations with Mr Trump will allow his magistrates to give that investigation a rest. ■

Purging Turkey's judiciary

Empty benches

ISTANBUL

President Erdogan's crackdown is crippling Turkey's justice system

WERE he to return to Turkey in the near future, Celal Kalkanoglu (not his real name) would have to do so in handcuffs. "They will arrest me as soon as I land at the airport," says the judge. On July 16th of last year, the day after an army faction attempted a coup against Recep Tayyip Erdogan, the president, Mr Kalkanoglu's name appeared on a long list of officials to be dismissed and arrested. With the judge having left Turkey, the authorities went after his family. Some of his relatives were sacked from government jobs, he says, and barred from leaving the country.

More than 4,000 Turkish judges and prosecutors, a quarter of the total, have been dismissed by decree since last summer, mostly because of alleged links to the Gulenists, a secretive Islamic movement accused of leading the coup. The vast majority, including two members of the constitutional court, are in prison. Only a fraction have heard formal charges. Mr Kalkanoglu, who denies any affiliation with the Gulenists, says the government has used the coup as an excuse to step up a purge of the judiciary that began in late 2013, after a corruption scandal implicated cabinet ministers. "I have been blacklisted since 2014," he says. Mr Erdogan describes the corruption claims as a Gulenist plot.

Don't mention the purges

On May 16th Mr Erdogan had a friendly meeting in Washington with Donald Trump. As Turkish security guards beat Armenian and Kurdish protesters elsewhere in the city, Mr Erdogan asked Mr Trump to extradite Fethullah Gulen, the elderly cleric who runs the movement and has lived in Pennsylvania since 1999. The two leaders also discussed Syria, where Turkey is angry about America's move to arm Kurdish militias fighting against Islamic State. No agreement was reached on either subject,

but Mr Trump praised Turkey's efforts in the fight against terrorism. He said nothing about Mr Erdogan's increasingly autocratic rule, or about the crackdown that is hollowing out the rule of law in his country.

In the past, members of Mr Gulen's movement took over parts of the judiciary and abused their power with the government's blessing. In the late 2000s the Gulenists worked with Mr Erdogan's Justice and Development (AK) party to sideline secular opponents, staging show trials that jailed hundreds of army officers, often on the basis of forged evidence. Many of the jurists now under arrest helped carry out that earlier wave of purges, says Mehmet Gun, head of Better Justice, a non-governmental group.

Yet Mr Erdogan's new purge is even more extensive. A climate of paranoia has taken hold of the courts. Judges and prosecutors are constantly looking over their shoulders, says Metin Feyzioglu, head of

France's new government

Appointed with care

PARIS

Emmanuel Macron picks ministers from left and right

IN THE first test of his promise to bridge the party divide, Emmanuel Macron has appointed a government marked by political balance, novelty and competence. A day after his inauguration on May 14th, France's president named as prime minister Edouard Philippe, the centre-right mayor of Le Havre, to counterbalance his own roots on the left. Two days later, he unveiled a post-partisan team of ministers that mixes left and right, old and new.

The appointment of Mr Philippe was a coup of sorts. A year ago, when the 39-year-old Mr Macron launched his political movement, *En Marche!* ("On the Move!"), he vowed to "unblock" France by ending the confrontational division between left and right. Yet in reality, the bulk of his supporters came from the left or the centre. The Republicans, who want to form a solid block in parliament after legislative elections on June 11th and 18th, proved largely immune to Mr Macron's charms.

Mr Philippe, however, succumbed. A former right-hand man to Alain Juppé, a centre-right ex-prime minister who came second in the Republicans' presidential primary last year, Mr Philippe once said that he nonetheless shares "90%" of Mr Macron's thinking. Like the new president, he was educated at the high-flying *Ecole Nationale d'Administration*. But, largely unknown to the public, he comes across less as a product of the elite than a fresh face. Born in provincial Normandy and with no ministerial experience, the 46-year-old Mr Philippe in this sense fits Mr Macron's promise to renew political life.

Mr Philippe has already helped to unlock further defections from the Republicans. Among them are Bruno Le Maire, a former Europe minister, who will head the finance ministry, and Gérard Darmanin, the young Republican mayor of Tourcoing, who becomes budget minister. All three men were instantly evicted from their party. Polls suggest that Mr Macron's movement, rebaptised *La République en Marche!* ("The Republic on the Move!"), could be the biggest party in June, but may fall short of a majority. The centre-right flavour to Mr Macron's new team could help to win him votes from that side.

A former Socialist economy minister, the new president has not neglected the left. Jean-Yves Le Drian, the outgoing Socialist defence minister, becomes foreign minister; Gérard Collomb, the Socialist mayor of Lyon, goes to the interior. From

Extremism in the Bundeswehr

Asylum sneaker

BERLIN

A German soldier is accused of plotting terror attacks, posing as a refugee

IN JANUARY a maintenance worker at Vienna Airport found a loaded 7.65 calibre pistol in the pipe of a public toilet. He told the Austrian police, who put the toilet under surveillance. A month later they arrested a man who appeared to be searching for the gun. He turned out to be a lieutenant in the Bundeswehr, the German army, who claimed he had drunkenly found the weapon in some bushes and had hidden it in a panic. But investigations suggested something much darker.

"Franco A", as he is known, had allegedly been living a double life. He served in the 291 Light Infantry Battalion at a base in eastern France. In his time off, he lived at a refugee centre in Bavaria, masquerading as David Benjamin, a Syrian asylum seeker driven from his home by Islamic State. According to press reports he was an extremist planning false-flag

terror attacks, including the assassinations of Germany's ex-president and its justice minister. The saga has exposed failings at all levels of the German state. The instructors at Franco A's French military academy had rejected his thesis for its far-right content and advised his German superiors to dismiss him. A search of his barracks revealed posters glorifying Hitler's Wehrmacht, a swastika etched onto a gun case and handbooks on bomb-making and guerrilla warfare, as well as a stash of guns, rocket launchers and half a million rounds of ammunition. His Bavarian interviewers had not checked whether "David Benjamin" spoke more than a few phrases of Arabic.

These were not isolated oversights. "The far-right element in the Bundeswehr has strong roots among neo-Nazi radicals and their ideology," says Hajo Funke, an expert on extremism in Germany. Icons and songs from the Hitler years live on in pockets of the army. A study in 2007 put the proportion of far-right soldiers at 13%. On May 17th, Ursula von der Leyen, the defence minister, told MPs that further barrack searches had uncovered 41 items of Nazi memorabilia. Asylum authorities have revisited hundreds of applications like that of "David Benjamin" and have reportedly found serious mistakes in 10-15% of them.

Ms von der Leyen has paid the price. Long considered a likely successor to Angela Merkel, she has been attacked from both political sides. This is unfair to a defence minister who has fought to modernise the Bundeswehr and has moved fast to erase the last reminders of the 1940s (for example, by removing the names of Wehrmacht officers from over 20 barracks). It seems strange to respond to problems in the army by castigating a minister who is taking them on.



Putting the past behind them

the centre, Sylvie Goulard, a German-speaking centrist member of the European Parliament, becomes defence minister, and the government's most senior woman. François Bayrou, another centrist and political veteran, goes to justice. The team is pragmatic, pro-European, friendly to Germany and financially conservative.

Mr Macron has also brought in political outsiders with expertise. These include Agnès Buzyn, a haematologist, who becomes health minister; Muriel Pénicaud, a former executive at Danone, a food company, as labour minister; Jean-Michel Blanquer, head of ESSEC, a business school, who gets

education; and Nicolas Hulot, a green campaigner, as environment minister.

In the past, France has had mixed experience with ministers from outside politics. The grubby compromises and political manoeuvring that government involves do not always suit the merely competent. Nor is it obvious that all of the new team will be able to put tribal instincts behind them. They have less than a month before parliamentary elections in which to persuade those not naturally drawn to Mr Macron to support his cross-party vision in the national interest, rather than obstruct it for partisan gain. ■

BEANS TALK.



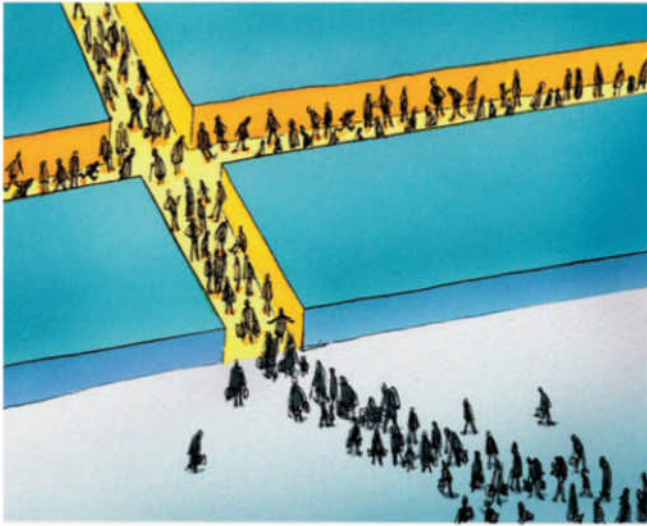
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NEW APPLIED NOW

strategy | consulting | digital | technology | operations

Charlemagne | Turning people Swedish

The greatest welcomers of refugees must now work out how to absorb them



NASTEHO WEHELIYE sits on one side of a semi-segregated cafeteria (men-only to the right of the counter; mixed to the left) in Tensta, a migrant-heavy suburb of Stockholm. Like many Somalis, she is an enterprising soul. So it is hardly surprising to hear her lament the high taxes and hiring costs of the homeland she adopted as a young asylum-seeker 27 years ago. As she wrings her henna-stained hands at the thought of the regulations that have stymied her two attempts to open shops in the Swedish capital, the café owner parks himself at a neighbouring table in an ill-disguised effort to eavesdrop.

The biggest local problems are housing and unemployment, says Ms Weheliye. These challenges have acquired fresh urgency as Sweden confronts the massive task of integrating its latest wave of refugees. In 2015, 163,000 asylum-seekers, mostly Syrians, Afghans and Iraqis, reached the country. Relative to Sweden's population of 10m, this was the largest influx ever recorded by the OECD, a club of mostly rich countries. Not all will stay; last year two-fifths of asylum claims were rejected. But the rest will need homes, schools and jobs.

Tensta shows why that will be hard. In recent decades waves of migrants and refugees have filled its high-rises after native Swedes upped sticks for better areas. Today Tensta is one of 53 parts of Sweden that the police deem "vulnerable" (ie, crime-ridden). Unemployment is substantially higher than the national rate of 6.6%. Development schemes have eased tensions, says Ditte Westin, a local official and former policewoman who has known the area for 20 years. But a quick tour of the neighbourhood, under the deafening sound of a police helicopter, reveals some of its scars, from open drug-dealing to a basketball court that, Ms Westin jokes, is used mainly by kids fooling around on motorbikes.

Just 6% of Swedes live in areas like Tensta, according to Tino Sanandaji, an economist, but 26% of residents with a non-Western immigrant background do. Their troubles are milder than those of some American inner cities or French *banlieues*, but hard to swallow for a society that prides itself on order. To avoid deepening segregation, ministers know they must act now, as the asylum system churns through the new claimants. A new law obliges all 290 of Sweden's municipalities to accept refugees, but as

they can go where they like once their claim is granted, clustering is hard to avoid. A housing shortage, particularly in Stockholm, aggravates the problem.

Finding work for refugees is another tough nut to crack. Fully 95% of new jobs in Sweden require at least a secondary education; one-third of recent refugees, most of them women, have less than nine years' schooling. High wage settlements, agreed between unions and employers, make it hard for unproductive workers to find jobs. The employment gap between low-skilled migrants and natives, nearly 20 percentage points in 2012, is a persistent feature of the labour market. And the concentration of refugees among Sweden's immigrants presents a challenge that will only have been sharpened by the recent influx.

Immigration also shoulders some of the blame for a decline in education standards (as measured by PISA scores) and a growth in inequality—admittedly to levels that remain the envy of less cohesive societies. Successful, high-trust countries like Sweden are vulnerable to this sort of difficulty: they may be happy to welcome outsiders, but can be harder to penetrate than looser, more informal places. It is hard to create an inclusive national identity under such circumstances. All seven of Ms Weheliye's children were born in Sweden, she says, but few of them feel Swedish.

All this prompts a harsher criticism: that its wealth has allowed Sweden to prop up an ethnic underclass sequestered in invisible suburbs. Alert to the concern, business groups and some politicians argue for a disruption of Sweden's wage-setting model to encourage a fresh wave of lower-paid service-sector jobs; flexible America, they note, is good at putting unskilled migrants to work. But sceptics fear this would entrench an ethnically stratified labour market. Better to focus on teaching refugees skills and Swedish, and hurry them into better-paid jobs, they say. The debate is likely to dominate next year's election campaign.

Sverige, vart ska du?

Beyond the policies lies a more nebulous question: what sort of country does Sweden want to be? The old consensus has broken down, perhaps for good. A country that defined itself through the welcome it extended to outsiders is now consumed by the task of managing those who came. Border controls imposed in 2015 remain in place, and there is no appetite to return to the open-door policy of the past. "We want to help as many people as we can," says Morgan Johansson, the migration minister. "But there are limits." Such thoughts once approached heresy in Sweden.

One casualty is the *cordon sanitaire* around the Sweden Democrats, a rabble-rousing anti-immigrant party of the sort disrupting politics across Europe. In January the centre-right Moderate Party said it would work with the Sweden Democrats in certain circumstances. The move led to a sharp drop in the Moderates' popularity, but it will be hard for mainstream parties to lock out the populists for ever. The Sweden Democrats nabbed 13% of the vote in 2014, forcing the Social Democrats to assemble a minority government, and polls now give them around 20%.

The situation is hardly hopeless. Swedish firms are desperate for workers, and the influx of young newcomers will help in a greying society. Tightened borders have bought the government precious time. And the troubles of areas like Tensta have been exaggerated by outsiders with an anti-immigrant agenda. The question is whether Sweden can work out how to extend the benefits of the successful society it has built to those it has invited to join. The aim is laudable, but just now the odds look long. ■



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Donald Trump and the law

Deep breath, America

WASHINGTON, DC

Robert Mueller will lead an independent probe into Russian hacking and the Trump team's alleged role in it

“THERE'S frankly no need for a special prosecutor,” the White House spokesman, Sean Spicer, told journalists on May 15th. He was responding to concerns about the independence of investigations into Russia's efforts to influence the election last November, with alleged assistance from members of Donald Trump's campaign team. Yet on May 17th the Justice Department announced that it had exercised its prerogative to appoint just such an independent investigator. The main Russia probe, run by the FBI, will be handed to a respected former FBI director, Robert Mueller, in the role of special counsel. He will be empowered to run the investigation, and press charges, as he sees fit.

This is a terrible blow for Mr Trump. The president has said Russian spies did not meddle in the election, though America's intelligence agencies say they did, and that there was no collusion between his advisers and the Russians. He has called the FBI investigation a “taxpayer-funded charade”. He has also been accused of trying to influence it. On May 16th the *New York Times* reported that the president had advised his then FBI director, James Comey, to lay off Michael Flynn, the former national security adviser, after sacking him for having surreptitious conversations with Russia's ambassador and lying about them. The investigation Mr Trump has thus sought to rubbish and perhaps divert will now be formidable. Even if he has nothing

to hide from it, this is deeply humiliating.

Mr Mueller, who ran the FBI for 12 years until 2013, having been hired by George W. Bush and retained by Barack Obama, is admired by both parties. He will be free to redesign and run the FBI probe, and will have ample resources to do so. In theory, he will be answerable to Jeff Sessions, the attorney-general, yet the fact that Mr Sessions has recused himself from playing any role in the Russian investigation—after he was also revealed to have kept weirdly shtum about meetings with the same Russian diplomat, Sergey Kislyak—is an additional guarantee of Mr Mueller's independence. For the same reason, the decision to appoint Mr Mueller was taken not by Mr Sessions, a Trump loyalist, but by his deputy, Rod Rosenstein. The White House was not informed of this development until just before it was made public.

Mr Rosenstein's decision is a clear victory for America's checks and balances. But Mr Trump and his advisers should blame themselves, not the system, for this. By hiring Mr Flynn, despite multiple indications that he was unfit for a senior government position, Mr Trump ensured his fledgling administration became instantly embroiled in a new round of Russia-related scandal. Because he failed to disclose his meetings with Mr Kislyak, Mr Sessions was forced to cede control of the FBI investigation to Mr Rosenstein. By allegedly leaning on Mr Comey—“I hope you can let

this go,” the president is reported to have told him, in reference to Mr Flynn's misdemeanour—and then, on May 9th, sacking him, Mr Trump may have blundered most seriously of all, in sight of an assiduous witness. Mr Comey is reported to have kept a careful record of all his chats with the president.

As they contemplate the gravity of Mr Trump's troubles, even Republicans are tempted to recall the last time a Republican president was disgraced and chased from office. The president's scandals are of a “Watergate size and scale”, said Senator John McCain of Arizona. Yet there is a big difference between Richard Nixon's disgrace and fall in 1973-74 and now, which makes it all but certain that Mr Trump is in no danger of imminent impeachment. Then, the Democrats controlled Congress, wherein lies the power to impeach. Now, the Republicans do—and no Congress has ever moved to dislodge a president of the same party as its majority tribe. Sure enough, despite the more anxious comments being made about Mr Trump by a dozen or so Republicans, including Mr McCain, most are silent.

Electoral logic explains that. Though Mr Trump has the worst ratings of any new president on record—less than 40% of Americans approve of him—most Republican voters are still with him. With a nervous eye to the mid-term elections due next year, most Republicans therefore consider attacking the president to be electorally suicidal.

This may change. If Mr Mueller turns up something seriously incriminating for the president, even the most timorous Republicans may abandon him. If the Democrats capture the House of Representatives next year, as they may, it is also likely that they would vote to impeach Mr Trump; though he would in that case probably be ►►

▶ saved by the Senate, as Bill Clinton was in 1999. In the meantime, however, a likelier outcome of his rule-breaking is less dramatic, but nonetheless horrendous for America.

With Congress descending into partisan rowing about Mr Trump, there is already little prospect of Democrats and Republicans co-operating on legislation. There is at best a vanishing prospect of Republican congressmen, who no longer fear the president as they once did even if they

will not condemn him, co-operating among themselves to carry through his agenda. Instead of remaking America with bold initiatives, Mr Trump faces a prospect of doing little of anything. The S&P500 fell by almost 2% on May 17th as investors mulled that dismally familiar prospect.

The dismay Americans felt at their governing system's previous round of tribalism and dysfunction fuelled the rise of Mr Trump. There is no reason to suppose this cycle will lead to anything better. ■

President Trump's travels

What could possibly go wrong?

Apprehensive hosts prepare to flatter an unpredictable guest

DONALD TRUMP departs for his first trip abroad as president on May 19th. He may be happy to leave Washington, but the cloud he is under will travel with him. And while every preparation has been made to ensure nothing will go awry, there is every reason to fear it will. Mr Trump's boasting to Russian officials about the "great intel" he had on a plot by Islamic State (IS) underlines just how hazardous this excursion is. His shocking indiscretion seems to have sprung largely from a desire to impress his visitors.

There has been comforting talk of a foreign-policy "firewall", thanks to the influence of the so-called "axis of adults": the defence secretary, Jim Mattis, the secretary of state, Rex Tillerson and the national security adviser, H. R. McMaster. The result has been a supposedly traditional Republican foreign policy emerging, distant from Mr Trump's campaign rhetoric.

Mr Trump has declared that NATO is not obsolete after all. East Asian allies have been reassured that America still stands with them. Mr Trump appears to be seeking a co-operative relationship with China after a schmooze-fest with Xi Jinping at Mar-a-Lago. The special counsel's investigations into collusion between Moscow and members of the Trump campaign team have scotched notions of a deal with Russia to end Ukraine-related sanctions.

However, the president's reluctance or inability to absorb even single-page briefing papers, combined with his impulsive and narcissistic personality, mean that nothing can be taken for granted. Aides, cabinet officers and senior congressional Republicans despair of him learning on the job or abandoning ways that put the administration on a continual rollercoaster of embarrassment and denial.

The first leg of a trip that will take in Saudi Arabia, Israel, the Vatican, a NATO

summit in Brussels and a G7 meeting in Sicily should be the easiest bit. After the Obama years, when the Gulf Arabs felt insulted by a president who cosied up to Iran to get his nuclear deal and preached to them on human rights, Mr Trump can expect from the Saudis all the love and admiration he feels is his due.

Jon Alterman, a Middle East expert at the Centre for Strategic and International Studies, says the Saudis are "tremendously relieved" about Mr Trump's election. They will allow him to revel in his ability as a dealmaker. A huge arms deal, perhaps worth \$100bn, will be signed and the Saudis will pledge to invest at least \$40bn in American infrastructure. Mr Trump will offer American technical know-how to help the deputy crown prince, Mohammad bin Salman (who has become a buddy of Mr Trump's son-in-law, Jared Kushner), to realise his "Vision 2030" plan to transform the

Saudi economy. There will also be plenty of tough talk on the need to work together to destroy IS, constrain Iran and counter violent extremism (ie, the Muslim Brotherhood). More surprising is the possibility that normalising relations with Israel could be waved as a carrot to get Mr Trump excited about brokering a peace deal with the Palestinians.

Two areas give scope for disagreement. One is Yemen. On a recent visit to the kingdom, Mr Mattis promised more support for the Saudis' campaign against Iranian-backed Houthi rebels—but only if they develop a coherent political strategy for ending the war. A second issue may go unmentioned. Saudi Arabia was left off the list of Muslim countries targeted by Mr Trump's stalled travel ban. Yet many Saudis are angry on behalf of their co-religionists, and at least 100,000 Saudis are studying in America. His hosts will try to prevent the local press from asking awkward questions.

Despite reports that the intelligence Mr Trump carelessly shared with his Russian visitors came from Israel, he will be warmly received there. Binyamin Netanyahu, the prime minister, loathed Barack Obama. His concern will be to keep Mr Trump from saying anything that disturbs the status quo he is so attached to (see our special report). Mr Trump will reaffirm America's commitment to maintaining Israel's military edge and issue a strong statement about keeping Iran in its box. But Mr Netanyahu wants to restrict any talk of a deal with the Palestinians, which Mr Trump casts himself as being uniquely able to deliver, to vague generalities.

Candidate Trump promised to move the American embassy to Jerusalem and showed no interest in limiting settlement-building on the occupied West Bank. But President Trump has adopted positions less favourable to the Israeli right. He is unlikely to deliver Obama-style lectures about settlements, but there is nervousness about what he might say and how he might say it. Kenneth Pollack of the Brookings Institution, a think-tank, advises watching out for how Mr Trump, "with no idea what the script is", deals with the "unrestrained" Israeli media probing for differences between him and Mr Netanyahu.

If diligent preparation guarantees success, Mr Trump's NATO visit should go swimmingly. The alliance's secretary-general, Jens Stoltenberg, has decided that the way to deal with a problem like Mr Trump is flattery. Rather than correct the president when he ignorantly scorned NATO for ignoring terrorism (14 years fighting in Afghanistan suggests otherwise), Mr Stoltenberg has emphasised new counter-terrorism initiatives, suggesting that Mr Trump has influenced the alliance's thinking.

Similarly, although NATO members began to boost defence spending after the Wales summit in 2014 in response to Rus- ▶▶



sian aggression, Mr Stoltenberg is happy to let Mr Trump claim credit for cajoling them. He hopes his reward will be an unequivocal statement of support for Article 5, which commits NATO members to regard an attack on one as an attack on all.

Jonathan Eyal of RUSI, a London-based think-tank, says the opening of NATO's new headquarters will be a useful symbol of "NATO 2.0". But nobody can predict how Mr Trump will behave among 27 other heads of government. Presidents usually wear their first-among-equals status lightly. "They are expected to be on top of their brief, cool and empathetic—everything Mr Trump is not," says Mr Eyal. "Things could go horribly wrong."

The same applies to the G7 meeting in Taormina, although Mr Trump may deal better with a smaller group of leaders. But as Kori Schake, a former Republican national-security official who signed a "Never Trump" letter, has pointed out, the paradox of this president is that it is America's closest allies who most fear him—in part because he rejects the normative Western values that bind them together, and in part because of his sheer unpredictability. ■

Western politics

A lady called Montana

BOZEMAN

A political race that makes Washington look ordinary

ON A recent evening Rob Quist ambled into a bar in Bozeman dressed in a Stetson and black jeans. He cleared his throat and recited a rhyme he had composed. "Montana...She's slow to grant her favours to come-lately, newer faces./To long-time suitors, she reveals her hidden, secret places./She lives in big-time splendour; she's the heart of the golden West./And all manner of wondrous creatures live and suckle at her breast."

The occasion was not a beer-and-poetry night but a congressional campaign rally. On May 25th Mr Quist, a country-and-western singer and fourth-generation Montanan, will compete as a Democrat in a special election for Montana's sole congressional seat, vacated when Representative Ryan Zinke was appointed secretary of the interior. Republicans have held the seat since 1996. But the polls, few as they are, suggest that Mr Quist is closing the gap with his opponent, businessman Greg Gianforte, a "newer face" originally from New Jersey who lost the race to become Montana's governor last November.

Neither man has much political experience. Mr Quist has spent the past decades performing music and poetry—some-



Settin' the woods on fire

times, as his opponent relishes pointing out, at nudist resorts. Mr Gianforte is best known for starting a successful technology business and for his support of Bible-literalist causes. He chaired the board of a school in Bozeman that teaches evolution as "one of several theories of existence", and has donated to a dinosaur museum in Glendive which claims that the earth is around 6,000 years old and that dinosaurs stomped about on Noah's ark.

A strong showing in April in another special election, for a Republican-held seat in Georgia, has excited Democrats. Montana's contest is being similarly interpreted as a litmus test of Mr Trump's unpopularity. But this election may say more about Montana's curious brand of politics than about national trends.

In November Montanans handed Mr Trump a landslide victory over Hillary Clinton while at the same time voting for Steve Bullock, the incumbent Democratic governor, over Mr Gianforte. Although the state has backed Republicans for president and for Congress since 1996, since 1911 at least one of its senators has always been a Democrat. In an office decorated with family photos, football helmets and paintings of Montana landscapes, Mr Bullock wonders whether Montana's emptiness partly explains the state's erratic voting tendencies. "We have 1m people spread out over a huge territory. There's a sense of individualism, but also a recognition that you have to take care of your neighbour."

Dale Martin, a historian at Montana State University, says Montanans, like most states of the Rocky Mountain West, have long had an ambivalent relationship with the federal government: libertarian by instinct, but reliant on federal subsidies for highways, mining and agriculture. According to The Tax Foundation, a think-tank, federal aid accounted for 39% of general revenue in 2014, making it the fourth-most-dependent state in the country.

Both candidates are trying to walk a difficult line. At an event in Butte, a run-down mining town, Mr Gianforte castigated federal overreach while cheering the idea that "public lands remain in public hands". (His campaign for governor failed partly because of stories that he had sued to block public access to a fishing river in front of his Bozeman estate.) At his bar-room rally, Mr Quist championed liberal causes like reproductive rights, universal health care and economic equality. But to prove his gun-friendliness, he also taped a campaign advertisement in which he shoots at a TV screen playing an attack ad against him. ■

Prisoners and jobs

Going straight

NEW YORK

Banning employers from asking about criminal records may not work

DION got his first paying job at 14—which would be admirable, except that he was selling crack cocaine. He spent much of his early adulthood bouncing between prison and the streets of Yonkers, in New York state. Then, a few months out of one four-year spell behind bars, he discovered Greyston bakery. Founded by a Jewish engineer-turned-Buddhist monk, Greyston practices "non-judgment". To get a job, people need only provide their names and telephone numbers, and turn up on time when a vacancy arises.

Most companies are far more discerning, particularly when it comes to people like Dion. Perhaps half of America's private-sector employers ask job applicants to declare their criminal records, and two-thirds routinely run checks before taking people on. They see it as necessary due di- ►►

► ligence. Unfortunately, checks that individual firms believe to be prudent are collectively bad for the 7m Americans who have spent time in prison and the 70m with a criminal record—numbers that may increase if Jeff Sessions, the hardline attorney-general, pushes through tougher sentencing rules. Keeping convicts away from jobs may also be harming America.

Nearly half of all ex-prisoners re-offend within their first year of release—a share that might be lower if more found honest work. The Centre for Employment Opportunities, a charity, places former convicts in 75-day work programmes. Participants are paid daily and receive help to find permanent jobs. A randomised controlled trial in which 977 former prisoners who came through the charity's doors either received the full complement of services or very few suggested that the intervention cuts re-offending by 19 percentage points.

In an effort to force employers to change, 26 state and 150 municipal legislatures have adopted “ban the box” legislation that removes declarations of criminal history from job-application forms. On April 1st an executive order by Barack Obama's administration came into effect, banning the box for all federal jobs, amounting to 250,000 jobs a year.

Don't point

Banning the box may, however, have unfortunate consequences. Two American academics, Amanda Agan and Sonja Starr, have studied the effect of bans in New Jersey and New York. They created dummy job applicants with typically black names like Jermaine and Malcolm, and tracked how employers responded to those beside dummy applicants with typically white names, such as Cody and Scott. They found that whereas black men with invented criminal histories received more responses from companies after the change in the law, black men without criminal histories received fewer. Presumably, some employers began to interpret black-sounding names as a signal of criminality.

Two things might, however, persuade employers to change their minds. First, negligent-hiring lawsuits—in which a firm is sued for employing someone who commits a crime at work—are terrifying but rare. Second, it is just possible that former convicts might be more productive than the other candidates who apply for a particular job.

Devah Pager, a sociologist at Harvard University, has tracked the performance of 8,000 former felons who entered the American army after passing a screening process in the years between 2002 and 2009. She finds that the ex-cons were slightly more likely to be undisciplined but were also promoted unusually quickly. Is that just a quirk of military culture? It would be worth finding out. ■

Illinois's troubles

The Midwest's basket case

CHICAGO

Who should run the Land of Lincoln?

IN THE two and a half years since he was elected governor of Illinois, Bruce Rauner has met the media as little as possible. Recently, though, he has seemed more eager to communicate. In February he started to take questions from listeners once a month on WBEZ, the local public-radio station. On May 9th he appeared on Facebook Live with his wife, and last month he went on an impromptu tour of the state, visiting businesses and restaurants.

Mr Rauner is one of the most vulnerable Republican governors in the country. A poll in March by the Paul Simon Public Policy Institute of Southern Illinois University found that 58% of those surveyed disapproved of the job he is doing. The fiscal mess he inherited is now so acute that, according to chatter on the bond markets, Illinois could go bust like Puerto Rico. The state's debt stands at \$210.4bn; Moody's, Fitch and Standard & Poor's all put its credit rating just two notches away from junk.

The main reason for this state of affairs is that the governor and the legislature, which is controlled by Democrats, have failed for two years to agree on a budget. Mr Rauner wants the state House of Representatives to pass his anti-union, pro-business proposals before he agrees to the tax increases and spending cuts needed to balance the books. Mike Madigan, the Speaker of the House and boss of the state's Democrats, insists his party cannot accept

such a radical agenda. On May 9th the Civic Federation, a right-leaning watchdog, sharply criticised Mr Rauner for the lack of detail in his budget proposals, for including an operating deficit of at least \$4.6bn and for allowing unpaid bills to rise to nearly \$20bn.

While the governor struggles, an unusually high number of Democrats have already said they mean to run for his job in November next year. J.B. Pritzker, a hotel magnate, and Chris Kennedy, a businessman and son of Robert Kennedy, an icon of liberal Democrats, have already thrown their hats in the ring. So have Ameya Pawar, a progressive Chicago alderman, Daniel Biss, a state senator, and Bob Daiber, the only candidate from downstate Illinois, who is superintendent of schools for Madison County. Scott Drury, a state representative, says he is thinking about it.

Mr Pritzker and Mr Kennedy both have deep pockets. They can match Mr Rauner, who was boss of a private-equity company before he ran for office, and who put \$50m in a campaign fund last December even though he has not formally said that he will seek re-election. Mr Pritzker is even richer than the governor; Mr Kennedy's name alone gives him access to plenty of funds. Neither man has ever held political office, so neither could be accused of being controlled by the deeply unpopular Mr Madigan, widely considered the godfather of Illinois politics, whose main focus is to get his minions re-elected.

Even so, says Christopher Mooney of the Institute of Government and Public Affairs in Urbana, it is not inconceivable that a less well funded candidate, such as Mr Pawar or Mr Biss, might win the Democratic primary next March. Mr Pawar makes a persuasive pitch to progressives, promising a “new deal” with more funding for public schools, universal child care, legalised pot, big investments in infrastructure and reform of the criminal-justice system. He points out that he is the only person of colour in the race in a state where, by 2020, most children will be either from a minority or mixed-race. And he promises to fix Illinois's abysmal finances with a progressive income tax and the elimination of tax loopholes for companies.

Mr Rauner is unlikely to have a rival on the Republican side. His popularity could recover in the next 18 months if he manages to end the budget crisis. He is a capable campaigner with powerful backers, notably Ken Griffin, a hedge-fund billionaire, and Richard Uihlein, a conservative businessman from the Chicago suburbs.

At their Facebook Live session, Mr Rauner and his wife sat at a wooden table, beer glasses in hand, and talked about fly fishing, sunflowers and strawberry milkshake. Not all viewers were impressed. On screen one online comment flashed repeatedly: “Pass a budget!” ■



Must grumble

George Soros

Public Enemy Number 1

NEW YORK

How an 86-year-old philanthropist became the *bête noire* of politicians from Washington to Skopje

IN “MASQUERADE”, Tivadar Soros’s memoir of Nazi-occupied Budapest, he describes how he procured false IDs for fellow Jews, including his 14-year-old son George. The elder Soros’s approach to the forgeries is enlightening. With wealthy clients, he “asked for whatever the market would bear”. From the desperate he made nothing: “I felt that I was just a little responsible for everyone.” George posed as the godson of an official who conducted inventories of confiscated Jewish estates. “Without risks,” his father says of a time when each day was a life-or-death gamble, “there’s no life.”

An appetite for risk made George Soros a billionaire, but also made him enemies, as has his congenital philanthropy. In recent months these resentments have reached a new, alarming pitch. Two strands of criticism, in America and abroad, seem to have fused, a confluence epitomised by a pair of obscure letters sent by Republican politicians. A group of senators wrote to Rex Tillerson, the secretary of state, and a clutch of congressmen to the comptroller-general, taking aim at the same detail: the role of USAID, America’s foreign-aid agency, in Macedonia, specifically its collaboration with the local arm of Mr Soros’s Open Society Foundations (OSF).

Mr Soros has supported democratic reform in central and eastern Europe since he distributed photocopiers among activists in the 1980s. His programmes avowedly promote free media, fair elections and clean government, rather than opposition parties, but local autocrats often miss the distinction. The Kremlin, which blamed Mr Soros for peaceful uprisings in Russia’s ex-Soviet neighbours in the 2000s, kicked his affiliate out in 2015. Belarus and Uzbekistan have also given him the push.

A name to conjure with

As Russia revives its influence in Europe, antipathy to Mr Soros is redoubling: in Romania, Poland and especially Macedonia, where, amid a political crisis and allegations of graft and vote-rigging against a former prime minister, a “Stop Operation Soros” movement was launched. Meanwhile Viktor Orban—prime minister of Mr Soros’s native Hungary and himself a recipient of a Soros-funded scholarship—reviles his benefactor’s “transnational empire”. Hungary’s parliament passed a law that might close Central European University, which was founded by Mr Soros in 1991.



No friend of autocrats, either

Another pending law could be used against his foundation.

His political views and hefty donations have led to vitriol in America as well. Denunciations of George W. Bush and the Iraq war made him a bogeyman among right-wing fulminators and conspiracy theorists. His support for Hillary Clinton and disparagement of Donald Trump—an “impostor” and “would-be dictator”—have reinvigorated his assailants. Recently he has developed a controversial sideline in local prosecutorial races, from Louisiana to Illinois, betting that reformist prosecutors can help change the criminal-justice system. Sometimes the candidates he backs seem as baffled by his interest as their rivals, but 12 out of his 15 picks have won.

Still, even if they disliked his influence at home, mainstream American politicians of both parties have mostly endorsed his foreign goals. Now the distinction is crumbling, as the Macedonian letter shows. It is a bizarre intervention: American politicians are in effect aligning themselves with a far-away, scandal-plagued party that is also backed by Russia, and which has allies who have resorted to violence, while disparaging their own government and, of course, Mr Soros. They have got their facts wrong, too: USAID has never funded Mr Soros’s outfit in neighbouring Albania, as the senators alleged. In the scheme of the agency’s budget and the

Foundations’, the sums involved are tiny.

In any case, Mr Soros’s infamy from the bayous to the Balkans is odd. He is certainly no saint. Some of his wealth comes from currency speculation, as when, short-selling the pound in 1992, he “broke the Bank of England”. He has a French conviction for insider trading in 1988. Yet he has given billions to worthy causes. Michael Vachon, a longtime adviser, points out that Mr Soros derives no personal benefit from his advocacy of, say, the rights of Roma or the abolition of the death penalty. In politics, Mr Vachon says, unlike many big-time donors he “is always lobbying for a public purpose, never for private gain”. Often he promotes policies, as on tax, that could cost him.

Canary in the global mine

In part his predicament is an indicator of authoritarianism’s advances. As Radek Sikorski, a former Polish foreign minister, puts it, Mr Soros “has been a consistent advocate of the liberal order, and the liberal order is itself under attack”. European regimes may see an opening in the ascendancy of Mr Trump, who is sceptical of exporting democratic ideals (and whose own campaign demonised Mr Soros). For their part, some in Congress may see him as a tool as much as a target, their real aim being to discredit overseas aid.

Whatever the causes, as Soros-bashing spreads—the idea of his global meddling gaining a meretricious credibility with repetition—so do other troubling views. One is the cynical claim that peaceful protesters, whether against Mr Trump’s policies or corruption in Romania, take to the streets only if they are bribed: usually, run the calumnies from Bucharest to Washington, by Mr Soros. “If we’d paid all the protesters they say we have,” jokes Laura Silber of OSF, “we’d be bankrupt many times over. It’s an insult to people standing up for their beliefs.” Second, ever-more supposedly democratic leaders are relying on external adversaries to bolster their positions, confecting them if necessary.

Finally, there is the particular kind of foe that Mr Soros is made to embody. Portrayals of him as an octopus, or, as in a Hungarian billboard, as a puppet-master, inevitably recall the last century’s anti-Semitic propaganda. Some such echoes may be accidental, the conspiracists unconsciously defaulting to ancient tropes, but they are striking. In a tweet praising Mr Orban, for example, Steve King, a Republican congressman, called Mr Soros a “Marxist billionaire”. That chimes with the old slur against Jews whereby, as Tivadar Soros says in his book, “at one and the same time they held in their hands...the Western capitalist countries and Russian Bolshevism.” “He survived the Nazis,” Mr Vachon says of Mr Soros’s current situation, “and he takes a long view.” No doubt, but in some ways this must be depressingly familiar. ■

Lexington | Donald Trump, man of God

To know why Christians can love a much-married braggart, study the prosperity gospel



MANY titles bestowed on Donald Trump—from president to commander-in-chief—are hard for non-supporters to digest. But the honorific that most puzzles the world, perhaps, is that bestowed by American conservatives who praise the swaggering, thrice-married tycoon as a man of God.

Expect that gulf of perception to grow still wider as Mr Trump embarks on his first presidential trip overseas on May 19th. Sceptics remember Candidate Trump stoking sectarian rage on the campaign trail. They remember a man who proposed a complete ban on Muslim arrivals and scorned Pope Francis as a Mexican “pawn” for questioning his immigration plans. Yet now White House aides call President Trump a leader bent on uniting the great faiths, who will bring a “message of tolerance and of hope to billions” during stops in Saudi Arabia, Israel and Rome.

Sceptics have long suspected that conservative Christians—and above all white evangelical Protestants, who are among his most loyal backers—are embracing the president for a mix of reasons, including worldly politics and tribal loyalties. Opponents assume that is why pious followers overlook such Trumpian sins as pride, wrath and bearing false witness (or fibbing, to use a layman’s term). They note that when Jerry Falwell junior, head of Liberty University, a Christian college, called Mr Trump a “dream president”, he listed achievements that straddle the realms of God and man, from his appointment of a conservative Supreme Court justice, Neil Gorsuch, to his vocal support for Israel.

Some political scientists sound more like anthropologists than theologians when they dissect Mr Trump’s success with whites who call themselves evangelical Protestants and attend church regularly—fully 80% of whom told a recent survey by the Pew Research Centre that they approve of his job performance. Those scholars note that for many whites, notably in small towns and rural areas, adhering to traditional Bible values and embracing a personal relationship with Jesus Christ—to use one common definition of evangelical faith—is another way of saying “I am an upstanding citizen”. Seen that way, piety is hard to untangle from other markers of conservative identity, from gun ownership to feeling the country is going to the dogs.

Still, it is a mistake to seek purely secular explanations for Mr Trump’s bond with religious conservatives. For one thing, the

president’s rhetoric is steeped in time-worn stories about a Christian nation under siege. He is the latest in a long line of politicians to cast believers as a faithful remnant, under attack from the sneering forces of modernity. More specifically, Mr Trump’s language is filled with echoes of a much-mocked but potent American religious movement with millions of followers, known by such labels as “positive thinking” or the “prosperity gospel”.

To historians of religion, like Kate Bowler of Duke University, when Mr Trump speaks of spiritual matters his words fairly ring with the cadences of prosperity preachers. In an address to graduating students at Liberty University on May 13th, Mr Trump promised his audience a “totally brilliant future”, and said that his presidency is “going along very, very well”. He ascribed both happy observations to “major help from God”. Lots of believers credit God for success, but Mr Trump went further. He described an America in which winners make their own dreams come true. He hailed a 98-year-old in the audience whose death by the age of 40 had been predicted by experts. He praised strivers who speak hopes aloud, ignoring doubters, and growled: “Nothing is easier or more pathetic than being a critic.”

That boosterism would sit happily in a sermon by preachers like Joel Osteen, routinely watched by television audiences of 7m, or Creflo Dollar, the Rolls-Royce-owning pastor of an Atlanta megachurch with 30,000 members. This is no accident. As Ms Bowler explained this month at the Faith Angle Forum, a twice-yearly conference about the interplay of politics and religion, as a young man Mr Trump attended a New York church led by Norman Vincent Peale, a “positive thinker” who also officiated at his first marriage. A prosperity preacher, Paula White, spoke at Mr Trump’s inauguration, despite grumbles about her hard-sell techniques, with worshippers prodded to make such “demon-slaying, abundance-bringing” donations as \$229, chosen to honour I Chronicles 22:9, with its talk of Solomon earning respite from “enemies on every side”.

Favoured by the Almighty

Prosperity preachers are often dismissed by mainstream theologians as pompadoured hucksters (think Oral Roberts, a pioneering televangelist) or as near-heretics, for suggesting that believers can achieve God-like powers over their own health and wealth. But they reflect a Trumpian worldview. “Blessed”, a book about the prosperity gospel by Ms Bowler, describes the fine line between telling boastful untruths and “positive confession”, by which a bankrupt might thank God for an imaginary gusher of money, or a deathly ill congregant might insist that she is already cured, in the belief that naming a desire will bring it about. Like the Trump family, megachurch pastors and their immaculately groomed wives and children are held up as models of divine favour: winners who have found the rungs of an invisible ladder to success. Prosperity ministries revere celebrity—a Los Angeles church gave Jesus his own star, evoking the ones on Hollywood’s Walk of Fame. The movement has deep roots, stretching back to 19th-century touring mesmerists and Pentecostal healers, and to the Depression-era pastor whose version of Psalm 23 began: “The Lord is my Banker, My Credit is Good.”

Not every prosperity worshipper is a Trump voter, not least because many are black. But the movement’s influence on the religious right is hefty, and growing. It is a theology for self-made men who scorn the idea of luck. God gives him “confidence”, the president bragged last year. That is a very American creed. ■



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May 20th 2017

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Six days of war, 50 years of occupation

Israel has become powerful and rich, but has not found peace with the Palestinians—nor with itself, says Anton La Guardia

IN THE BEGINNING they destroyed Egypt's air force on the ground and knocked out the planes of Jordan, Iraq and Syria. That was Monday. Then they broke Egypt's massive defences in Sinai. That was Tuesday. Next, they took the old city of Jerusalem and prayed. That was Wednesday. Then they reached the Suez Canal. That was Thursday. They ascended the Golan Heights. That was Friday. Then they took the peaks overlooking the plain of Damascus. In the evening the world declared a ceasefire. That was Saturday. And on the seventh day the soldiers of Israel rested.

In just six days of fighting in June 1967, Israel created a new Middle East. So swift and sudden was its victory over the encircling Arab armies that some saw the hand of God. Many had feared another Holocaust. Instead Israel became the greatest power in the region. Naomi Shemer's anthem, "Jerusalem of Gold", acquired new lines after the war: "We have returned to the cisterns/To the market and to the market-place/A *shofar* [ram's horn] calls out on the Temple Mount in the Old City."

This is a year of big anniversaries in Israel: 120 years since the First Zionist Congress in Basel; 100 years since the Balfour Declaration promised the Jews a national home; and 70 years since the UN proposed to partition Palestine into a Jewish and an Arab state. But the commemoration of the half-century since the six-day war will be the most intense.

This special report will examine the legacy of that conflict. The territories that Israel captured are the defining issue of its politics and its relations with the world; they are also at the heart of Palestinian dreams of independence. The six-day war was the last unalloyed military victory for Israel, and the start of a transition from existential wars against Arab states, which it always won, to enervating campaigns against non-state militias which it could never wipe out. The threat of invasion across its borders has vanished, but the violence within them is unceasing.

In 1967 Western arms decisively beat Soviet ones. As America allied

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ACKNOWLEDGMENTS

In addition to those cited in the text, the author would like to thank the following for their invaluable help, and for sharing their insight, in the preparation of this report: Said Abdalrahim, Rebhi Alsheikh, Moshe Arens, Inbal Arieli, Luke Baker, Aluf Benn, Yoel Bin-Nun, Fiona Darmon, Talia Dekel-Fleissig, Sergio DellaPergola, Zaki Djemal, Uri Dromi, Yishai Fleisher, Moshe Friedman, Dore Gold, Aviad Hachohen, Nir Hasson, Zvi Hauser, David Horowitz, Nitzan Horowitz, Laura Kam, Ghassan Khatib, Yossi Langotzky, Erel Margalit, Meirav Michaeli, Ayman Odeh, Hagit Ofra, Michael Oren, Robert Piper, Dorit Rabinyan, Mark Regev, David Rosen, Ekrima Sa'eed Sabri, Ayelet Shaked, Hans Shakur, Daniel Shapiro, Wendy and Saul Singer, James Sorene, Yuval Steinitz, Eleazar Stern, Manuel Trajtenberg, Marina Wes, Moshe Yaalon, Amos Yadlin, Tamar Zandberg and Husam Zomlot.

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► itself firmly with Israel, cold-war divisions overlaid the Arab-Israeli conflict. And when Charles de Gaulle switched sides to align France with the Arabs in 1968, in effect banning weapons sales to Israel (notably of Mirage jets), he unwittingly laid the foundation for Israel's flourishing high-tech industry. These days it is France that buys drones from Israel.

The embattled refuge for the Jews became a mini-empire, ruling over millions of Palestinians. It was, in many ways, an improvised conquest, “The Accidental Empire” (the title of a book by Gershom Gorenberg), but one which has endured. The war awakened Palestinian irredentism and Israeli zealotry, and added the intractable power of religion to the forces of nationalism. The wall that divided Jerusalem has gone, but Israel has erected many more barriers that atomise Palestinian society. Israelis have grown rich, which makes the misery of Palestinians all the more disturbing. In uniting the ancient land of Israel, the victory has divided Israel's people and coarsened its democracy.

Shotgun wedding

That heady June day in 1967 when Levi Eshkol, then Israel's prime minister, heard news of the capture of Jerusalem, he told party colleagues: “We've been given a good dowry, but it comes with a bride we don't like.” His words proved more prescient than he imagined.

Old Israeli soldiers still tell their stories of the war day by day, hill by hill. Reuven Gal was a platoon commander in the Jerusalem Brigade, a unit of reservists from the city who fought within earshot of their homes. After a battle to control the UN headquarters the previous day, Mr Gal recalls advancing at dawn on June 7th towards Jordanian trenches on the hill of Jebel Abu Ghneim. To his relief the position had been abandoned. As his men rested, he heard the radio signal from Motta Gur, commander of the paratroopers who had entered the walled city: “*Har habayit beyadeinu*” (the Temple Mount is in our hands). All around him, hardened soldiers wept at the news.

After the war, Israelis loved to hike in the ancient hills, rediscovering Hebron, Eli, Shiloh and more; for Mr Gal, Jews “became drunk” with euphoria at taking the lands of their biblical ances-

try. And he thought that after such a defeat the Arabs would have to sue for peace. He breaks into a song from the time: “Tomorrow, when the army take off their uniforms/All this will come tomorrow, if not today/And if not tomorrow, then the next day.”

But peace did not come. Every generation of Israelis must still put on the uniform and prepare to fight. Mr Gal became the army's chief psychologist and later a senior national-security official. “Little did we know what this military victory would bring,” he reflects. “The celebrations were the beginning of the tragedy of the occupation. It has had a tremendous impact on our morality, democracy, the souls of our children and the purity of arms [the morality of the use of force].”

Palestinians, for their part, talk of their dismay at how Jordanian troops gave up Jerusalem's Old City with barely a fight, and of their surprise at discovering that the armoured vehicles rumbling into the city were not Iraqi reinforcements but Israeli. On the edge of the Jewish Quarter of the walled city, Abu Munir al-Mughrabi lives in a small one-bedroom flat that is a makeshift museum to the loss of Arab Jerusalem. On his wall of pictures of the city, one shows him as a 25-year-old in a suit, standing amid the rubble of his neighbourhood, the Mughrabi Quarter. It was demolished by Israel immediately after the capture of the Old City, turning the alleyway in front of the Western Wall, the most important place of Jewish prayer, into the wide plaza it is today. He holds up his hand-drawn map of the vanished buildings and a list of the 138 families that were cleared out.

Abu Munir had been in Amman when the war broke out. He slipped back across the border to reach Jerusalem just as his home was being torn down. For a time he smuggled people to and from Jordan. He also smuggled weapons for Fatah, then a rising militant movement, and spent time in jail.

His story illustrates a change of mindset by Palestinians. In the war of 1947-48, when Israel was established, Palestinians fled or were pushed out en masse. Hundreds of villages were destroyed. By contrast, in 1967 most stayed on. “We were lucky that we were defeated so fast and so massively,” says Ali Jarbawi, now a professor of political science at Birzeit, a Palestinian university in the West Bank. “Israel did not have time to kick us out.” ►►

▶ There were also some unexpected benefits: Palestinians from the West Bank, which had been annexed by Jordan, renewed ties with Palestinians from Haifa and Jaffa, which had been part of Israel after 1948; and from Gaza, which had been occupied by Egypt. “The Palestinian national feeling re-emerged because of the occupation,” says Mr Jarbawi.

That sentiment burst forth with the first Palestinian *intifada*, or “shaking off”, in 1987. Until then the Palestinians under Israeli rule had remained mostly placid, while the Palestine Liberation Organisation (PLO), dedicated to the removal of Israel by force, conducted cross-border attacks from abroad. The armed struggle was, for the most part, a failure. The PLO lost a civil war against King Hussein of Jordan in 1970; embarked on a campaign of international terrorism, including the massacre of Israeli athletes at the Munich Olympics of 1972; helped to precipitate the civil war in Lebanon in 1975; and was evicted to Tunis after Israel’s invasion of 1982.

By contrast, the *intifada* was marked mainly by stone-throwing clashes. It dashed the illusion that Israel could hold on to the occupied territories at little cost. The Oslo accords of 1993 established an autonomous Palestinian Authority under Yasser Arafat, the PLO leader, who returned triumphantly in July 1994. Extremists on both sides set out to destroy the deal with unprecedented violence. A Jewish settler killed 29 Palestinians at prayer in Hebron in 1994. Hamas and Islamic Jihad, both Islamist factions, embarked on a campaign of suicide-bombings. In 1995 a right-wing Jew murdered the prime minister, Yitzhak Rabin.

The second *intifada*, precipitated by the failure of peace talks at Camp David in 2000, involved guns and bombs. Mr Arafat often seemed to tolerate, or even encourage, the militants. Unilateral Israeli withdrawals from Lebanon in 2000, and from

Gaza in 2005 (after Arafat’s death), did not bring peace either: Israel fought repeated wars against Hamas and Hizbullah (a Lebanese Shia militia), both of which fired numerous rockets at Israel.

The decades of the “peace process” brought much process and little peace. For Israelis, land for peace became land for suicide-bombs and rockets. “Most people feel that the occupation is no longer our fault,” says Yossi Klein Halevi of the Shalom Hartman Institute, a think-tank. “I came out of the first *intifada* as a Labour voter. But the second *intifada* moved me to the right.”

For most Palestinians, the Oslo deal brought a worse occupation: more bloodshed, internal division, loss of land to settlers and territorial fragmentation. Palestinians these days live as refu-

The decades of the “peace process” brought much process and little peace. For Israelis, land for peace became land for suicide-bombs and rockets

gees in the Arab world; in an open prison in the Gaza Strip run by Hamas; in a patchwork of isolated autonomous enclaves in the West Bank run by the nationalist Fatah faction; as neglected “residents” of Israel in Jerusalem; and as second-class citizens struggling for equality in Israel’s pre-1967 borders.

The chaos in the Middle East since the Arab uprisings of 2011 has hardened Israel’s conviction that it is too risky to give up more land: what if Hamas or Islamic State (IS) took over the hills of the West Bank overlooking Israel’s most populated areas? Israel came close to returning the Golan Heights in peace talks with Syria. Now that militias such as Hizbullah, al-Qaeda and IS have implanted themselves on the frontier, many Israelis are grateful that the negotiations failed. For their part, the Palestinian feel ▶▶

Peace, or in pieces?

A guide to the ABC of the conflict

THE SIX-DAY WAR increased Israel’s territory threefold. The “borders of Auschwitz” were gone; the vulnerable nine-mile narrow waist acquired a thick cuirass with the mountains of the West Bank. Israel soon annexed East Jerusalem with some surrounding land; it did the same with the Golan Heights in 1981. Elsewhere, it left the status of the occupied territories undefined, waiting for a peace that never came even as Jews settled there.

After the Yom Kippur war of 1973, when Israel was caught off-guard by Egypt and Syria, America mediated a limited “disengagement” in Sinai and the Golan. In 1979 Israel agreed to give back all of Sinai under a peace treaty with Egypt.

The Oslo accord of 1993 set out a five-year period of Palestinian autonomy in the West Bank and the Gaza Strip. It left the hardest issues—borders, settlements, Jerusalem and Palestinian refugees—to be sorted out later. The interim arrangements created a crazy quilt of territories: in Area A, the main Palestinian cities, the Palestinian Authority

was given full civil and security control; in Area B, mostly taking in Palestinian villages, it had civil-affairs and some law-and-order powers, but Israel retained ultimate security control; in Area C, the biggest zone, encompassing settlements, access roads, nature reserves and so on, Israel kept full control (see map, opposite page).

With the second *intifada*, Israel in effect turned Area A into Area B. It frequently conducts raids to arrest suspected militants. It entirely withdrew its troops and settlers from the Gaza Strip in 2005, maintaining a fence and buffer zone on the border and controlling the skies and the seas.

Israel’s separation barrier in the West Bank, a series of walls and fences, often runs close to the pre-1967 border. But it cuts deep salients into the West Bank to take in blocks of settlements and a swathe of territory around Jerusalem. This encircles the majority of settlers, who live mostly in towns close to Israel’s main cities. But it has severed Arab areas of East Jerusalem from their natural

hinterland in the West Bank, and has greatly hampered movement between the northern and southern parts of the West Bank. It has also created several isolated Palestinian pockets: parts of the West Bank are enclosed within the barriers, and some Palestinian neighbourhoods of Jerusalem are cut off.

Nearly 2m Palestinians live in the Gaza Strip and almost 3m in the patchwork of autonomous zones in the West Bank, where they are mixed with around 385,000 Jewish settlers. East Jerusalem has about 320,000 Palestinians and about 210,000 Jews. Within the old pre-1967 border, the “Green Line”, there are more than 6m Jews and 1.5m Palestinians with Israeli citizenship.

Between the Jordan river and the Mediterranean, the overall number of Palestinians has more or less caught up with the number of Jews: about 6.5m for each. Palestinian statisticians say Arabs will equal Jews by the end of the year; Israeli demographers reckon the high birth rate among the ultra-Orthodox will keep Jews just ahead.

▶ their cause has been forsaken by Arabs that once held it dear.

Pollsters say that opposition to the idea of peace based on the creation of a Palestinian state alongside Israel is strongest among the young of both sides, those aged 18-24. Their parents may have known a time with no internal barriers and cordial if unequal relations between Arabs and Jews. These days most young Israelis and Palestinians have little contact.

Life in Israel, safe behind the security wall and the mental one that says “there is no partner for peace”, is more comfortable than it has been for most of the country’s short life. Security has improved, for now. The economy is booming. And even as its politics turns more chauvinistic, its society is opening up in other ways. Arab citizens of Israel, who lived under martial law until 1966, are becoming more integrated economically. In Jerusalem, some Jews and Arabs challenge each other at backgammon and dance the Palestinian *dabke*. Israeli music is rediscovering the rhythms and tones of the Orient. The army welcomes women and gays, despite objections by some rabbis. The old conflicts over sabbath observance are, for the most part, a thing of the past. Even in Jerusalem, islands of secularism have emerged.

Visit the beaches or the pulsating bars of Tel Aviv, eating non-kosher Thai prawns, discussing the latest algorithm and watching the handsome youth drift by, and you might imagine yourself in California. Fifty years after 1967, it has become too easy for Israel to forget that, just a short drive away, the grinding occupation of Palestinians has become all but permanent. ■

Politics

Right v far right

Israel’s politicians promote religion and intolerance

THE SIGN AT the entrance is clear: “According to Torah Law entering the Temple Mount area is strictly forbidden due to the holiness of the site.” Rabbinical tradition holds that Jews may not set foot on any part of the esplanade atop Jerusalem’s holiest site. Once the location of the Jewish temple, which was destroyed by the Romans in 70AD, the area has for centuries been a Muslim compound comprising the al-Aqsa Mosque and the golden Dome of the Rock. Because the location of the Holy of Holies (the inner sanctum of the former temple) is unknown, say the rabbis, ritually impure Jews might accidentally enter and defile it. These days Jews mostly pray outside, at the base of the retaining wall, known as the Western Wall, or Kotel.

Nonetheless, Jewish zealots venture into the al-Aqsa compound almost every day, ostensibly as tourists. The police let them jump the queue of foreigners and form a protective cordon as they perambulate the Dome of the Rock, amid curses from Muslim worshippers. Sometimes they stand silently, gazing at it longingly. They are filmed by the police, who are supposed to ensure that they do not attempt to pray. One trick is to address God while pretending to speak on a mobile phone.

The activists maintain that their holiest place is not down below and outside, at the Western Wall, but above and within the great enclosure (see picture). They demand the right to pray there after centuries of exclusion. “The Western Wall is a refugee camp for Jews,” declares one campaigner. Besides, he says, the Holy of Holies is under the golden dome, which covers a rock where tradition says Abraham prepared to sacrifice Isaac (or Ish-



Layers of complexity

mael, according to Muslim lore). Rabbi Yehudah Glick, a Likud member of the Knesset (parliament), who was wounded by a Palestinian gunman in 2014, dismisses the prohibition on Jews entering the Temple Mount. As the campaign gathers support, he predicts, traditionalist rabbis will be forced to bow before the popular will. Had they not once opposed Zionism itself?

Rabbi Glick casts the campaign for prayer rights as a matter of religious freedom. But it has been spurred by politics, as a response to the Camp David talks in 2000, when the status of Jerusalem’s holy places was negotiated over for the first time; establishing the right of Jews to pray on the Temple Mount would reinforce Israel’s claim to sovereignty over the site.

For Palestinians, the intrusion of Jewish activists into the al-Aqsa compound is all of a piece with the creeping “Judaisation” of Jerusalem. All around al-Aqsa, they lament, right-wing Jews financed by foreign donors are buying up Arab houses above while conducting archaeological digs below.

Holy sites are the powder kegs of the conflict, imbuing the nationalist dispute with religious fervour. A row over the Kotel in 1929 led to deadly anti-Jewish riots across British-ruled Palestine. A visit to the Temple Mount in 2000 by Ariel Sharon, then the Likud party leader, lit the fuse of the second Palestinian *intifada*. And the increasingly frequent prayer visits helped launch the current wave of stabbings and car-rammings by Palestinians.

Weaponising prayer

To understand the danger of politicised piety, consider Hebron, Jerusalem’s “older sister” and site of the Cave of the Patriarchs (which Muslims call the Ibrahimi Mosque), where the Bible says Abraham bought a burial-place for his family. Both the Kotel and the Hebron site feature massive stone blocks from the time of Herod the Great. After the war of 1967 Jews gained the right to pray in the cave complex for the first time in 700 years. They also moved into buildings nearby to restore a Jewish community that had been massacred and evicted in 1929. Where Jewish settlers go, the Israeli state usually follows. The friction in Hebron has caused much bloodshed on all sides. After a massacre of Muslim worshippers in the Cave of the Patriarchs by a settler in 1994, Israeli authorities partitioned the site, and later the city.

It was in Hebron in March 2016 that an army medic, Sergeant Elor Azaria, killed a Palestinian lying on the ground, even though he had already been wounded and incapacitated after trying to stab Israeli soldiers. Mr Azaria shot the man not in the heat of the moment but 11 minutes after the stabbing—and was caught on video. The army’s high command demanded exem- ▶▶

▶ play punishment, but populist politicians agitated for an acquittal or, once the soldier was convicted of manslaughter, a pardon. Strikingly, the prime minister, Binyamin Netanyahu, took the side of the pardon-seekers.

The Azaria affair says much about the chauvinism that suffuses Israeli public life. Politics is no longer a contest of right against left but of right against far right. Israel has become more ethno-nationalist and less universalist; more Jewish and less Israeli. Mr Netanyahu, once regarded as a demagogue, often looks like a moderate next to many of his cabinet members.

Right-wingers have sought to marginalise Arab parties in the Knesset and hamper leftists and liberals. The Knesset is pushing laws on everything from reducing the volume of Muslim calls to prayer to forcing the disclosure of money given by foreign governments to NGOs (which often support human rights and other liberal causes) and giving immigration authorities greater power to ban BDS (boycott, divestment and sanctions against Israel) activists from entering Israel. The government has inveighed against what it calls the “activist” Supreme Court (which it deems too liberal) and against the media.

Outside parliament, things can turn uglier still. The ultras of the Beitar Jerusalem football club, La Familia, sing racist chants and are frequently involved in violence, not least when they pour out of matches to look for Arabs to beat up. The team has never had an Arab player. “I am a racist,” says one member. “That’s what La Familia means: the Jewish family.” A related

group, Lehava, campaigns rowdily against miscegenation. All this might be dismissed as fringe activity, except that Beitar Jerusalem is much beloved of Likud ministers, and the government gives money to groups close to Lehava that seek to “save” Jewish women from Muslims. It has also objected to a book featuring love between Arabs and Jews.

Ehud Barak, a former Labour prime minister, talks of “budding fascism”. Older Likud members, from Moshe Arens, a former defence minister, to President Reuven Rivlin, and even some of the settlers’ father figures, find the crass racism disturbing, but these days they are sidelined. “Likud was hawkish, but was liberal and democratic. It has been transformed,” says Moshe Halbertal, a professor of Jewish philosophy at the Hebrew University in Jerusalem. “For ultranationalists, the enemy is within—NGOs, the minorities, the courts.”

Labour’s love lost

The drift to illiberalism is also a symptom of the weakness of the Labour party, damaged by decades of post-Oslo violence. The party is in perpetual turmoil: it has gone through 11 leaders since 1994, whereas Likud has had just two. In Israel’s strange parliamentary arithmetic, Labour cannot form a coalition with Arab parties, which hold 13 seats, lest it be accused of treachery.

Counter-intuitively, perhaps, there is a fear on the right that the settlement project is failing. Settlers account for a minority of the West Bank’s population, and have not managed to convince ▶▶

The army’s new elite

Religious soldiers are replacing kibbutzniks. Does it matter?

ARMY INDUCTION DAY feels like a graduation party. Family and friends gather. The kids leave home to become the defenders of the Jewish state. The gun is passed from father to son. On the day the paratroopers are being signed up at Bakum, the main recruitment centre of the Israel Defence Forces (IDF), young men dance in a circle to the beat of a drum, singing “Don’t be afraid, Israel.” All in the cheerful band wear the knitted skullcaps of the national-religious movement, having studied at a religious military academy in the settlement of Eli.

Religious Zionists have largely taken over the ideological fire of the secular *kibbutz* movement, which built socialist collective farms in the early years of the state. Now it is the boys from the *yeshivas* (Jewish seminaries) who seek to settle the land and become army officers. If the army is a microcosm of Israeli society, then its top units may be the harbingers of Israel’s future elite. The paratroopers form a sort of military aristocracy. Eight of the 15 IDF chiefs of staff since 1967 have worn the red beret and boots, and several became prominent politicians.

National-religious Jews, who account for about 10% of the population, make up about 40% of junior and mid-level infantry officers. Many secular Israelis worry that,

through this group, religious settlers will take over the army. “They are very devoted. They are great soldiers, ready to sacrifice. But they bring a certain ambiguity about who is the final source of authority,” says Ehud Barak, a former chief of staff and one-time prime minister.

The evidence so far is ambiguous. The army’s removal of settlers from Gaza, and latterly from outposts in the West Bank, has passed off with few instances of insubordination. Moreover, the network of *hesder yeshivas* (which mix religious studies with military service) and religious pre-service military academies is often intended less to create a new national-religious elite than to keep youngsters from leaving religious life.

The IDF wants to expand the number of full-timers, both to maximise front-line combat troops and to reduce the burden on reservists. The influx of women is rising by the year, increasingly to guard the borders. So is the recruitment of the ultra-Orthodox, usually allocated to sex-segregated units. As it happens, the IDF is also one of the world’s most gay-friendly armies.

Rabbis who object to the recruitment of religious women, or of ultra-Orthodox men, are fighting a losing battle. Besides, rabbinical authority is breaking down as Israelis’

religious beliefs become more variegated and personalised, says Tomer Persico of the Shalom Hartman Institute. “The army changes religious soldiers as much as religious soldiers change the army.”

Is the IDF the most moral army in the world, as many claim? There must be doubts. Breaking the Silence, a group of reservists who bear witness to what they have seen and had to do while in uniform, tell many disturbing stories, from the petty humiliation of Palestinians to actions that might count as war crimes. Despite accusations of treason aimed at the group, its mere existence attests to the strength of Israeli democracy.

In an age of asymmetric warfare against militias rather than states, the IDF produces few obvious military heroes. Generals have become less prominent in politics these days even as other elites, such as startup entrepreneurs, are on the rise. The IDF remains a great melting pot, turning Jews from the four corners of the world into Israelis. But there are fears that army service may yet become a force for social division. Those hand-picked to join the tech-savvy units, such as the signals-intelligence Unit 8200, are likely to find highly paid jobs in the high-tech world. The infantry manning the checkpoints could find themselves left behind.

► most Israelis of their case for permanently annexing the West Bank. By casting their movement largely in religious terms, they have lost much of secular Israel. Mr Netanyahu has confined the building of settlements to the main blocks on the borders of the West Bank. And people remember that Ariel Sharon, a previous Likud prime minister, pulled out the settlers from Gaza, proving that settlement is reversible.

“We are bigger, but we are not as influential as we used to be,” says Israel Harel, a veteran of the settler movement. He regrets that settlers did not push immediately for the annexation of the West Bank. These days he would make do with the absorption of just Area C, handing areas A and B to Jordan (a deal that would not be accepted by either Jordan or the Palestinians). “I am not so concerned about security and more concerned about what happens in Israel. This issue divides us. It creates hate and chauvinism. I don’t want Israel to become hell.” ■

The economy

Startup nation or left-behind nation?

Dazzling high-tech firms divert attention from a serious productivity problem

IN A PATCH of desert until recently frequented only by passing camels, workers in a computer lab examine new “smart” appliances: a slow cooker on one bench, a security camera on another, a smoke detector on a third. Millions of devices that incorporate mini-computers are being connected to the internet. But as well as convenience, the “internet of things” offers cyber-criminals many new vulnerabilities to exploit. “If I were an attacker, I would never hide in your PC,” says Oleg Brodt, director of research and development at Cyber@BGU, the cyber-security research centre run by Ben Gurion University in Beersheva. “I would try to hide in your smoke detector or door alarm, because nobody bothers to protect them.”

The centre has shown how wearable devices can be used to eavesdrop on corporate networks. It has also demonstrated the multitude of ways in which even supposedly ultra-secure computer systems not connected to the internet can be hacked. These include exploiting FM radio waves emitted by video cards, the blinking of LED lights or even the pattern of heat signatures.

The Israeli government wants to turn Beersheva, a comparatively poor southern city, into one of the world’s prime cyber-security centres, attracting multinationals to work with startups in an incubator (established by JVP, an Israeli venture-capital fund) and with the university’s computer-science department. More important, the army’s signals-intelligence Unit 8200 and other tech-savvy branches are due to relocate to Beersheva in the coming years, providing a flow of young and capable veterans to boost the industry. Alumni of Unit 8200 have already seeded much of Israel’s high-tech industry.

Israel attracts about 15% of the world’s venture-capital investment in cyber-security. It is part of Israel’s booming “startup-nation” economy, the most dynamic innovation ecosystem outside America. Direct flights now connect San Francisco to Tel Aviv. Other high-tech areas look promising, too, among them agricultural and water technology (building on Israel’s expertise in desert farming), digital health services and financial technology.

The biggest buzz is over driverless cars. Boosters think that Israel can help produce their brains—computer vision, lidar (la-

ser scanning), artificial intelligence and cyber-security—leaving the engines and the metal-bashing to others. Intel, a giant maker of computer chips, has recently bought Mobileye, which makes driver-assistance systems, for \$15.3bn.

All this marks a remarkable change from the 1980s, when Israel was on the brink of financial collapse. Its near-defeat in the Yom Kippur war had caused it to push defence spending to an extraordinary 30% of GDP in 1975. By 1984 public debt had reached nearly 300% of GDP and hyperinflation peaked at 450% a year.

In the past decade the economy has grown at about 4% a year. The unemployment rate is 4.3%, a record low. The labour-force participation rate has risen. A country with few natural resources plans to export gas to Europe from its offshore fields, and is selling water to Jordan as water desalination gathers pace. Public debt has come down to 62% of GDP, the current account is in surplus and foreign-currency reserves are high. All significant transactions were once reckoned in dollars; the worry now is the strength of the shekel, which has appreciated by 13% against a basket of currencies in two years. The central bank periodically intervenes in foreign-exchange markets to hammer it down.

Israel has not had a recession (defined as two consecutive quarters of falling output) since the height of the second *intifada*. The Israeli economy “is inoculated to a large extent” from wars in Gaza and Lebanon, says Eugene Kandel, a former economic adviser to the government and director of Startup Nation Central, a non-profit group that links global firms with local startups.

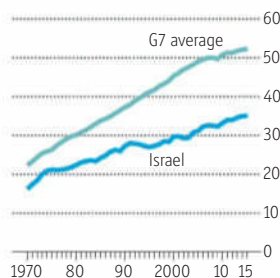
It is easy to be dazzled by Israel’s high-tech firms. In fact, the country has two separate economies. The dynamic, globalised startup nation accounts for only about a tenth of employment, whereas nine in ten Israelis work in something more akin to a left-behind nation that is inefficient and protected from competition. Poverty rates in Israel are among the highest in the rich world, for two main reasons: the ultra-Orthodox often live on public subsidies to pursue a life of Talmudic studies; and Arab citizens struggle to achieve equality.

Float like a Zeppelin

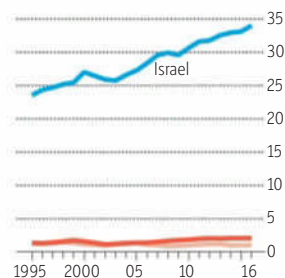
Mr Kandel talks of the high-tech industry as a Zeppelin floating above the rest of the economy and only loosely connected to it. This raises two fears. One is that the Zeppelin will drift away if the regulatory, political or security environment deteriorates. The other is that it will fail to lift the rest of the economy. The answer, Mr Kandel thinks, is for startups to grow into big firms in their own right, instead of selling up to companies like Google. Even if the buyers leave their R&D centres in Israel, only so many people can become high-end developers. Larger companies would hire more lawyers, accountants and the like. ►►

Low and high

Labour productivity
GDP per hour worked, 2010 prices, \$



GDP per person
2014 prices, \$'000



Sources: Dan Ben-David, Shores Institution and Tel Aviv University; IMF; OECD



On trend in Tel Aviv

► For a country with many highly educated people, Israel scores poorly in the Programme for International Student Assessment (PISA), a test of the science, maths and reading skills of 15-year-olds from across the world run by the OECD, a rich-world think-tank. Even after stripping out the dire results of Israeli Arabs, the results of Hebrew-speakers were still mediocre—and would look even worse except that ultra-Orthodox Jews do not take the test. “PISA does not matter to the startup economy,” explains Mr Kandel. “It matters to the rest of the economy. We need solid PISA results to be able to adopt innovation, not necessarily to create innovation.”

Naftali Bennett, the education minister, is trying to nudge students into taking more demanding maths courses. He also wants to improve the standard of teacher-training colleges, although strong unions make it hard to align pay with performance, let alone sack bad teachers. He argues that the real secret of Israel’s startup economy is not the educational system but rather the culture of entrepreneurialism, rooted in self-reliance inculcated in young Israelis in the army and youth groups.

Dan Ben-David, of Tel Aviv University and the Shores Institute, a think-tank, sees things differently: “The IDF is an army, not a school.” He reckons that Israel’s real existential threat is poor productivity, not terrorism or external dangers: “We can’t stay like this for another 30 or 40 years. Sooner or later there will be a crisis.”

He divides Israel’s economic development into two distinct periods. One was the era of catch-up growth leading to the Yom Kippur war in 1973, when Israel’s productivity converged with that of the G7 countries; thereafter it diverged again. Israel’s strong growth of recent years, he says, is due mainly to a rise in the number of workers, not in productivity. Israel’s population is growing fast, and cuts to welfare benefits have pushed more people, particularly ultra-Orthodox women, into work.

According to Mr Ben-David, Israel has chronically underinvested in education and infrastructure because resources have been spent on subsidies for ultra-Orthodox *yeshivas* and Jewish settlements. And the split-economy problem is likely to worsen. Ultra-Orthodox Jews (about 7% of the Israeli population) and Arabs (approximately 21%) have higher fertility rates than other groups; together they are projected to make up half of the Israeli population within about 40 years. Without big changes, average participation rates and productivity will drop.

By throttling back public spending, Binyamin Netanyahu may have left Israel with too little fiscal leeway to invest in public goods and alleviate poverty. As the country has shed its socialist heritage, government spending has fallen from a hefty 80% of GDP in 1980 to below 40%, low by rich-world standards.

Israel also scores poorly on the OECD’s measures of restric-

tiveness in product markets and services. Oligopolies and monopolies abound, and over the past decade the country’s position in the World Bank’s ease-of-doing-business index has slid from 26th to 52nd. This has meant low wages and high prices. The cost of living is about 20% higher than in Spain and 30% higher than in South Korea. Kosher certification makes food more expensive, and the panoply of quotas, tariffs, regulatory barriers and guaranteed agricultural prices has piled on extra costs. Strikingly, a country that has produced globally popular taxi and navigation apps does not allow Uber to offer its cheap car-for-hire services because of resistance from the taxi lobby. Bottlenecks in construction and land allocation have driven up the price of housing, especially in Tel Aviv.

Occupation economics

Try to use a mobile-phone app in the West Bank or Gaza and it soon becomes apparent that the Palestinian territories, with 5m people, are in economic oblivion. Palestinian operators have not yet been able to set up 3G services, despite repeated promises; Palestinians with Israeli phones have to get close to settlements to use their services. Navigation apps like Google Maps and Waze offer skimpy information: they cannot find a route between big Palestinian cities—say, Ramallah and Nablus—but offer directions between small Jewish settlements near both.

The economic disparities are striking. With GDP per person at \$35,700 a year in 2015, Israel’s standard of living is much the same as France’s. For the West Bank the figure stands at \$3,700, akin to Egypt’s; for Gaza it is about \$1,700, similar to Congo-Brazzaville’s. In real terms, Gazans are about 25% poorer today than they were at the time of the Oslo accords.

Israel’s security barrier is, to a large extent, also a one-way protectionist barrier. The Palestinian market is fully exposed to Israeli goods, but Palestinian products struggle to get out. Strawberry farmers in Gaza, working less than a kilometre from the border fence, say they cannot export to Israel and only rarely to the West Bank. In the main, Palestinians are treated as a source of cheap, and disposable, labour.

“We have no economic policy. Everything is tied to the political situation,” says Mohammad Shtayyeh, president of the Palestinian Economic Council for Development & Reconstruction, which co-ordinates aid from donors. The Palestinian economy depends on the earnings of workers in Israel and the settlements, customs remittances from Israel and donations from the West and the Arab world. All these are subject to sharp fluctuations over which Palestinians have little control. Palestinian areas, Mr Shtayyeh notes, operate with three foreign currencies: the Israeli shekel, the Jordanian dinar and the American dollar.

There is no lack of entrepreneurship among Palestinians. The new city of Rawabi, rising on a hill north of Ramallah, is as ambitious as any government-built Jewish settlement, yet is a private project part-funded with investments from Qatar. It will count 6,000 units, ranging from homes for middle-class Palestinians to holiday flats for Israeli Arabs; and have amenities from classy global clothing chains to an amphitheatre and the Middle East’s longest zipwire. The project has encountered countless impediments, but families have started to move in.

Rawabi will include space for Palestinian startups seeking to work with Israeli and global firms. “We don’t have to do a lot to attract them. They are already next door to us,” says Bashar al-Masri, the businessman who conceived the city. Gazing west from Rawabi, the Tel Aviv skyline appears starkly against the gleaming Mediterranean. Few Palestinians can hope to visit it. But there are no checkpoints on fibre-optic cables; against the odds, a startup industry may yet appear in the failing startup state that is Palestine. ■

Palestine

A sorry state

There is no end in sight to the occupation

ISRAEL, THE PALESTINIAN AUTHORITY and Hamas may be bitter rivals, but they all agree on one thing: the Erez border crossing between Gaza and Israel, for the lucky few allowed to use it, is a prime opportunity to recruit spies. At the Israeli terminal a poster showing a handshake offers the “Chance of Your Lifetime” to Palestinians willing to provide information on militants. Beyond a buffer zone, at the PA and Hamas posts, murals warn Palestinians against betraying the homeland.

Erez marks one of the world’s strangest frontiers, separating the lush fields of Israeli *kibbutzim* from the free-fire zones, rubble and chaos of Gaza—a territory that is neither a state, nor an autonomous domain of the PA, nor even a fully occupied territory after Israel pulled out in 2005. Instead it is a large detention camp, guarded from without by Israeli forces (and by Egyptian troops), and from within by Hamas, the strongest of the armed gangs, which pushed out the PA in 2007. The PA’s border post provides a convenient buffer between Israel and Hamas.

The façade of the Israeli terminal masks a surreal automated facility. No Israeli is in sight as Palestinians emerging from Gaza make their way through remote-controlled gates and scanners. Commands are barked through distorted tannoy, or made with obscure hand signals from behind the blast-proof window of a control room high above.

Since the Israelis left, Israel and Hamas have engaged in four major rounds of fighting and endless smaller clashes. Everybody expects another war, though few seem to want it. The Shujaiya neighbourhood, pounded to rubble in 2014, is being rebuilt with scarce materials from charitable donations or, for those who can afford it, the black market. The liveliest bit of Gaza’s economy is the recycling of war rubble. Electricity is intermit-

tent, and clean water is in short supply.

Majed al-Heisso, a father of six, makes a living from occasional but dangerous work tilling fields nearby. In the game of Gazan roulette, those recognised by Israeli spotters as regular farmers are allowed to work land close to Israel’s buffer zone; others risk being shot. Hamas is keeping a ceasefire, but struggles to stop smaller Salafist factions from using places like Shujaiya to launch rockets at Israel. Residents flee to escape Israeli retaliatory fire. “There is firing every day. I want it to end. We don’t want any more wars. The children have nightmares every day,” says Mr Heisso. “The militants fire rockets, get paid and have happy lives. We are the victims.”

There is growing talk in Israel of relieving the economic siege of Gaza, including proposals to build a port on an offshore island (controlled by Israel). One reason is to avoid a return to war. Another is ideological: by treating Gaza as if it were a Palestinian state, Israeli right-wingers think they might more easily fend off pressure for territorial concessions in the West Bank.

This all feeds Hamas’s conviction that violence is the only language that Israel understands. “Gaza was liberated by resistance,” says Mahmoud Zahhar, a senior Hamas political figure who has lost two sons in the fighting and whose house has been bombed four times. By contrast, he says, the Palestinian Authority’s security co-operation with Israel in the West Bank has led only to the expansion of settlements.

Movement but no progress

Yet Hamas, too, is under pressure. On May 1st it issued a new policy paper that updates, but does not abolish, its founding charter of 1988. It drops the crudest anti-Semitic passages and accepts the creation of a Palestinian state in just the West Bank and Gaza as a “formula of national consensus”. Yet Hamas is no convert to a two-state solution; it remains committed to the “full and complete liberation of Palestine”, if necessary by “resistance and *jihad*”. Its vision of a Palestinian state is maximalist and, like Gaza, in permanent conflict with Israel. For Mr Zahhar, “Israel is a foreign body,” although Hamas could talk to it about humanitarian issues: bird flu, say, or the exchange of prisoners.

For Israel, the document is a non-starter. By distancing Hamas from the Muslim Brotherhood, it signals accommodation with Egypt, which has eased the closure of the Rafah crossing. And it seeks to appeal to militant factions of Fatah as the Palestinian Authority squeezes Gaza, cutting salaries to Palestinian civil servants and throttling subsidies for fuel and electricity. The timing matters: it came as the Hamas politburo named a new leader, Ismail Haniyah, the former head of Hamas in Gaza; and as Mahmoud Abbas, president of the Palestinian Authority, prepares for a possible resumption of peace talks with Israel (see next article).

In his capital of Ramallah in the West Bank, Mr Abbas, who is 82, is treated with indifference by Israel and contempt by many Palestinians. Life in Ramallah may be easier than in Gaza, but corruption in the PA rankles, as does the erosion of democracy. Mr Abbas is in the 13th year of his four-year term. Potential rivals are circling. Mr Abbas’s lieutenants think a two-state deal is still feasible. “We are in the last 15 minutes,” declares Jibril Rajoub, a former head of internal security in the



Cars can take more than an hour to get through Kalandia into Jerusalem. The passage for those on foot looks like a cattle pen

► West Bank (now head of the Palestinian Olympic Committee) and a potential successor. The world is “fed up” with Israel’s occupation, he says, and Donald Trump may provide an unexpected breakthrough. “He said America first, not Israel first.”

Such claims are met with guffaws on the streets. “A Palestinian state? That’s just a movie. Things were much better before the Palestinian Authority came here,” says Khalil Abu Ibrahim, a fruit-and-vegetable seller who has set up in a prime spot: next to the captive clientele of the gridlocked roundabout at Kalandia checkpoint, in the shadow of a smoke-charred Israeli watchtower. Those allowed to cross Kalandia by car can take more than an hour. The passage for those on foot looks like a cattle pen. Israel could do much more to make the crossing less awful—more lanes for cars, more staff to process travellers, more effort to clean up the place—without endangering its security. Here Israel’s talk about the eternal unity of Jerusalem is exposed as hypocrisy. The wall cuts off areas that are formally part of the city, forming twilight zones for East Jerusalem’s Palestinians where housing is cheaper but public services are neglected.

Arij, a student, picks her way past the fetid rubbish by the wall as she returns to East Jerusalem from Birzeit University, a commute of two-and-a-half hours each way. She does not speak Hebrew, so could not go to an Israeli university. “I don’t know any Jews. I am not ready to make friends with them,” she says. Most Israelis are not interested either. The Arabic that they are usually taught is a pidgin designed for places like Kalandia, with phrases in the imperative: “*Jib al-hawiya*” (give me your ID). ■

One state or two?

The ultimate deal

Israel’s dangerous drift to chauvinism may make a solution ever harder to find

IN A COUNTRY of larger-than-life leaders—founding fathers, warriors and peacemakers—it is easy to forget how long Binyamin Netanyahu has been around for. Having served as prime minister for 11 years—three years in the 1990s and eight years in his current stint—he is Israel’s second-longest holder of that office after David Ben-Gurion. He is on first-name terms with the world’s leaders. But what has he achieved?

On the big questions of war and peace, not much. He has won no big battles and secured no big peace agreements. Instead he has managed the conflict and avoided big disasters, which is no small feat. He has waged two wars against Hamas in Gaza, fending off calls for a full reinvasion. In the West Bank, the Palestinian Authority co-operates on security. Hizbullah, the Lebanese Shia militia, is too busy in Syria to risk a second front with Israel, and its paymaster, Iran, is some years away from being able to make a nuclear bomb.

Above all, Mr Netanyahu stayed out of the war in Syria, restricting himself to bombing suspected Hizbullah arms convoys, retaliating against any fire from Syria and offering medical treatment to wounded civilians and fighters. Not for Mr Netanyahu the misadventures of Israel’s invasion of Lebanon in 1982.

On the peace side of the ledger, Mr Netanyahu was the first Likud prime minister to give up land to the Palestinians, pulling out of most of Hebron in 1997. He accepted the principle of a Palestinian state in 2009, albeit a demilitarised one (a “state minus”, he now calls it). In practice he has made no progress on peace,

even under a moderate Palestinian leader, Mahmoud Abbas. The international campaign for boycott, divestment and sanctions (BDS) against Israel, modelled on the boycott movements against apartheid, is noisier but remains small for now.

There is more to Mr Netanyahu’s immobility than mere caution or, as his critics contend, cowardice. As a Revisionist Zionist, Mr Netanyahu is a believer in the “iron wall” doctrine of the movement’s founder, Vladimir Jabotinsky, who wrote in 1923 that Zionists could never reach a voluntary agreement with Arabs on sharing the land; the Arabs would yield to Jews only “when there is no longer any hope of getting rid of us, because they can make no breach in the iron wall”.

For Mr Netanyahu, the iron wall starts with a strong economy, for which he can claim credit. He tells visitors that the Palestinians are a non-issue; they should instead focus on the exciting new industries that Israel is building. A strong economy, in turn, allows Israel to maintain a powerful army, thanks to which many Arab states have either made peace, like Egypt and Jordan, or forged a de facto alliance with Israel against Iran, like the Gulf states. With top-rate intelligence services, Israel gathers valuable information that helps to build relationships far and wide.

The election of Donald Trump, Mr Netanyahu thinks, gives Israel the American ally he has always wanted. Hitherto he has had to contend with Democratic presidents, Bill Clinton and Barack Obama, who pushed him to make concessions to Palestinians. Israeli officials revile Mr Obama, in particular, for pursuing an all-or-nothing deal with the Palestinians that produced nothing; and, in the meltdown of the Middle East, for recklessly treating the now-fallen Egyptian dictator, Hosni Mubarak, as the bad guy, and the Iranian president, Hassan Rouhani, as the good guy. Mr Netanyahu tried, and failed, to use Congress to stop Mr Obama’s nuclear deal with Iran.

In his last days in office Mr Obama repaid Mr Netanyahu by declining to block a UN Security Council resolution declaring that settlement-building in all the occupied territories of 1967, including East Jerusalem, “has no legal validity and constitutes a flagrant violation under international law”.

Though few American Jews voted for Mr Trump, and many worry about the anti-Semitism of some of his devotees, Mr Netanyahu embraced him: “We do not have a greater friend than President Trump.” Yet having set himself against Mr Obama, and now cleaving to Mr Trump, Mr Netanyahu risks turning support for Israel into a partisan issue in American politics.

A proto-Trump

In his hatred of the media and his antipathy to the courts and the liberal establishment, Mr Netanyahu looks like a more intellectual version of Mr Trump before his time.

Many settlers thought Mr Trump would allow Israel to build freely in the West Bank, burying the prospect of a Palestinian state for good. His ambassador to Israel, David Friedman, is a donor to the settlement of Beit El. Right-wingers pushed a “Regularisation Bill” through the Knesset that would retrospectively legalise (under Israeli law) scores of settlements and outposts built on private Palestinian land. The government announced plans for the first new settlement in more than two decades.

But settlers’ disappointment in Mr Trump is growing. He told Mr Netanyahu to “hold back on settlements for a little bit”, and has not so far followed through on his promise to move the American embassy to Jerusalem. Increasingly, Mr Trump seems to be serious about pursuing what he calls the “ultimate deal” of Israeli-Palestinian peace. He will visit Jerusalem on his maiden foreign trip. Granted, he has been vague about Palestinian statehood. He did not mention it when he hosted Mr Abbas at the White House earlier this month, but he had the Palestinian flag ►►

► placed alongside the Stars and Stripes. “Now, Mr President, with you we have hope,” Mr Abbas told him in English.

To a degree, Mr Netanyahu needs America’s restraining hand, and the process of talks, to head off pressure from foreign governments, human-rights groups, BDS campaigners and his own right-wing ministers. Citing the need to keep Mr Trump on side, Mr Netanyahu resisted calls for the annexation of the settlement of Maaleh Adumim. For Mr Abbas, meanwhile, America’s interest helps restore his centrality to the Palestinian cause.

Can Mr Trump, as he suggests, prove the pessimists wrong? Both sides seem to fear his unpredictability. His air strikes against Syria last month, after a chemical attack by government forces on a rebel-held town, give America a bit of purchase. They were welcomed by Israel and Saudi Arabia, which had both been alarmed by the weakening of America’s presence in the region.

Suspended animation

That said, there are good reasons to think that neither Mr Abbas nor Mr Netanyahu will be able or willing to reach a final agreement. The compromises may prove too painful for either man to risk facing down his respective hardliners. Mr Abbas does not even control the Gaza Strip. Mr Netanyahu thinks Arab countries, now friendlier to Israel, will exert pressure on Mr Abbas to moderate his demands. The region can help a deal along, certainly, but there is no hope that it will impose peace on Palestinians in the absence of an Israeli commitment to real statehood. So both men are likely to play a long game, searching for the opportunity to blame the other for eventual failure.

In any case, Mr Netanyahu may have more immediate concerns at home, where he is under formal investigation by police in several cases of suspected corruption. These include allegations that Mr Netanyahu received cigars, champagne and other gifts from wealthy supporters; connived with a media baron to obtain favourable coverage; and that his personal lawyer was involved in a dodgy defence contract with a German firm. Mr Netanyahu denies any wrongdoing. If the police recommend charges, he may be forced to call early elections or step down. But as Israel’s canniest politician, he should not be written off yet.

One gauge of a leader’s influence is the extent to which he has forced others to change their position. The late Yitzhak Rabin forced Likud successors to accept the principle of Palestinian in-

dependence. Oddly, Mr Netanyahu claims to be more left-wing than Mr Rabin, who never talked of a Palestinian state.

In his way Mr Netanyahu, too, has reshaped Israeli politics. He has dragged those who would like to replace him as prime minister into the limbo of no peace and no war, no Palestinian state and no full annexation. The Labour leader, Yitzhak Herzog, has set out a plan to begin talks on a final agreement only after a ten-year period without violence or incitement. Yair Lapid, leader of the centrist Yesh Atid party, proposes a gradual process of “separation”, lasting 15-20 years. Naftali Bennett, leader of Jewish Home, the main settler party, does not seek the annexation of the whole West Bank; he wants to take over only Area C, which has lots of settlements and few Palestinians. Clearly none of them thinks peace is at hand; yet none wants to rule directly over millions of restive Palestinians.

Some wonder whether the world, having tried and failed for so long to achieve peace, is pushing a fundamentally flawed idea in its pursuit of the two-state model. Given the extensive Jewish settlement in the West Bank, it may be impossible anyway. Yet the idea of peace based on a Palestinian state on most of the land that Israel captured in 1967, in exchange for recognition of, and peace with, the Jewish state established in Palestine after 1948, is likely to persist. One reason is history. The partition of British-ruled Palestine into two states, proposed in various forms since 1937, produced a Jewish state but left the promise of a Palestinian Arab state unredeemed. Another reason is demography. In the “battle of the womb”, as some Palestinians call it, the Arab population has drawn roughly level with the Jewish one.

Israel cannot at the same time have all of the “Land of Israel”, a predominantly Jewish state and full democracy. Most Israelis (and many Palestinians) cannot conceive of a one-state model with equal rights for all Arabs and Jews. In reality, a one-state model means that some or all of the Palestinians would be disenfranchised. So, in the end, two states still looks like the least bad option to most Israelis and Palestinians. The trouble is, both sides intensely distrust each other. That plays to Mr Netanyahu’s instinct to do little and play for time. He thinks that his iron-wall strategy will strengthen Israel.

Yet prolonging the limbo brings dangers, too. One is that it will provoke a future Palestinian uprising—which Israel can no doubt suppress, at a cost. Another is that, when Mahmoud Abbas dies, it will be hard to find a Palestinian leader able to sign a historic compromise with Zionism. The endless occupation of the Palestinians, and the relentless encroachment on the land of their future state, corrodes Israel’s standing abroad and its democracy within. Ultimately, if it does not give Palestinians independence, Israel risks being cast as a racist or apartheid state. Fifty years after the six-day war, forget about land for peace: the issue is land for democracy. ■



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A friend in need



Colombia

Winning the peace

LA PAZ, CESAR DEPARTMENT

The FARC and the government are missing deadlines they set themselves. That is worrying, but not fatal

THE Tierra Grata encampment in the foothills of the Perijá mountains overlooks vast cattle ranches around the city of Valledupar. If the FARC guerrillas were still waging war on the government of Colombia, it would be the perfect spot from which to dominate this north-eastern area. But the 160 members of the FARC's 41st and 19th fronts who occupy the hillside camp spent a recent Sunday preparing not for battle but for a football tournament with teams from nearby towns. They are among nearly 7,000 guerrillas in 26 camps across the country who are waiting to disarm and become civilians under a peace deal, ratified last December, that ends the group's 52-year-long war against the state.

But even as the FARC footballers warmed up, there were signs that not everything was going to plan. The camp is still under construction, which should have finished last year. The FARC's ammunition and 7,000 firearms should have been deposited in shipping containers secured by the UN by the end of April. But by May 5th the UN had collected just 1,000 weapons. It has asked for extra time to take control of 900 caches of arms and explosives hidden in jungles and mountains. The original deadline for explosives was the end of January. Colombia's president, Juan Manuel Santos, is considering the request. "One more month, or six more months—after a war of 52 years, is it really

important?" he asked in a radio interview.

The biggest deadline is the end of May, which Colombians call "D plus 180" because that many days have passed since the accord took effect. By then the FARC should cease to exist as an armed group, and its adherents should be certified as civilians and thus free to leave the camps. All that is unlikely to happen on time.

The missed deadlines are a warning signal for a peace agreement that still faces formidable critics. The opposition, led by Álvaro Uribe, a former president, remains implacable in its hostility. Voters elect a new congress next March and a new president in May. The FARC are supposed to take part: they have been guaranteed five seats in the Senate and the same number in the lower house. Mr Santos, who cannot run again, must prove to voters by then that the peace process is working.

So far, the FARC and the government are not allowing delays to endanger the peace. The bilateral ceasefire agreed last August has held, with minor violations. An estimated 3-5% of FARC fighters have refused to move into the camps. The FARC have handed over 86 child soldiers to the Red Cross, though it is unclear how many there are in total. More than 80,000 growers of coca, the raw material of cocaine, have joined a crop-substitution programme; the FARC had controlled much of that trade.

Nonetheless, the group's leaders fear

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for the future. Although the peace accord requires the government to provide protection, in April two FARC guerrillas and five relatives of FARC members were murdered in four separate incidents, according to CERAC, a group that monitors conflict. It is not clear who is responsible. The government acknowledges that during this year 14 social leaders who backed the peace deal or defied organised-crime groups have been killed. Human-rights groups say the number is far higher. This has revived memories of an abortive attempt to achieve peace in the 1980s, during which thousands of leftists were killed.

Armed and anxious

Congress has passed a law granting amnesty to FARC fighters, who have committed crimes ranging from drug-trafficking to murder. But courts have delayed releasing from prisons some 2,000 FARC members. Surveys to identify the skills and aspirations of guerrillas in the camps, a first step towards integrating them into civilian life, have been delayed, in part by disputes between the FARC and the government over what questions to ask.

The FARC's biggest worry, though, is that the next government will be less committed to the peace agreement than the current one is. Mr Uribe and his supporters say the accord does not punish the FARC sufficiently, and object to the political role it concedes to the ex-insurgents. Fernando Londoño Hoyos, a leader of Mr Uribe's Democratic Centre Party, says his party will rip the agreement "to shreds" if it takes control of Congress and the presidency. Seeing that danger, Mr Santos pushed through the legislature a constitutional reform that would make that impossible. It obliges the next three presidents to uphold the letter and spirit of the accords. But the ►►

▶ constitutional court has two months to decide whether the language passes muster.

These uncertainties have made the FARC slow to surrender their weapons. They want to disarm, says Jesús Emilio Carvajalino, a member of the ruling secretariat, better known by his *nom de guerre*, Andrés París. The group, which has scheduled a convention in August, cannot become a normal political party until that happens. “The weapons are an inconvenience,” says Mr París. But the FARC have delayed disarming as a way to tell the government, “Keep to your side of the deal.”

That feeds unease among Colombians, who already detest the FARC, which became increasingly brutal and avaricious as the war went on. Many fear that the peace deal is encouraging new forms of lawlessness. Coca-growing has surged; farmers are planting the shrub in order to pocket payments for ripping it up again. The government has sent 68,000 troops to take control of territory vacated by the FARC. Even so, a variety of outlaw forces, including the ELN, a smaller leftist group, and organised-crime gangs, are moving in. Despite Mr Santos’s assurances, some worry that the FARC’s weapons caches will fall into their hands. Just 38% of Colombians think implementation of the peace accord is going well, compared with 51% in December, according to a Gallup poll.

Disarmament delays and the coca surge are also causing consternation in the United States. Its Congress has approved \$450m requested by Barack Obama to support implementation of the peace accord this year. But aid beyond that will depend on convincing Donald Trump that the peace deal is not a licence to produce narcotics or leave insurgents in possession of their weapons. Mr Santos was due to meet Mr Trump in Washington on May 18th.

Despite the suspicions on both sides, Colombian officials say it is still possible that the FARC will hand over their firearms by the D-plus-180 deadline. If that happens, the government can claim that the FARC at long last have ceased to be a threat, even if other deadlines are missed. And the FARC can then turn their attention to winning with ballots the power they failed to seize with bullets.

In San José de Oriente, a farming town with a population of 11,000 close to the Tierra Grata transition camp, people say they are already enjoying the benefits of peace. Jorge Eliécer Pérez, a local leader, says that at the height of the conflict in the early 2000s the FARC killed 100 people in the town, including his stepdaughter. “Even with the pain and resentment I feel, it’s better to have them there, demobilising, than up there, in the mountains, ready to attack and feeling our knees shaking every time we knew they were close,” he says. The peace process may be messy, but it is already bringing blessings. ■

Brazilian politics

A very meaty scandal

SÃO PAULO

Leaked tape recordings are a threat to the president, and to the economy

UNTIL now, Brazil’s president, Michel Temer, has personally avoided the scandals that have engulfed his administration. The supreme court has authorised investigations into eight members of his cabinet, as well as 24 senators and 39 lower-house deputies for allegations related to the vast scandal centred on Petrobras, the state-controlled oil company. However, the president was not a target of the inquiries. And no one had suggested that he had committed any crimes during his term of office, which could lead to impeachment.

That changed with sickening suddenness on May 17th, when *O Globo*, a newspaper, reported that Mr Temer had been caught on tape endorsing the payment of hush money to a politician convicted of taking bribes. According to the newspaper, in March the president met Joesley Batista, a businessman whose family controls JBS, the world’s biggest beef exporter. The firm is being investigated over accusations of paying kickbacks to Eduardo Cunha, a former speaker of the lower house of Congress who is serving a 15-year sentence for his role in the Petrobras scandal. Mr Batista reportedly told Mr Temer that he had been paying Mr Cunha to stay quiet. Mr Temer allegedly responded, “You need to keep that up, OK?” The tapes are now part of evidence collected in a plea-bargain deal that Mr Batista has struck with prosecutors.

The tapes also reportedly record Mr Temer advising Mr Batista to contact a congressman from his Party of the Brazilian Democratic Movement to resolve a problem for the company that owns JBS. The



When will it end?

congressman then received 500,000 reais (\$159,000) sent by Mr Batista, an event that was caught on film. The tapes were part of an elaborate investigation by police in cooperation with Mr Batista and his brother, Wesley, which involved placing tracking chips into bags of cash.

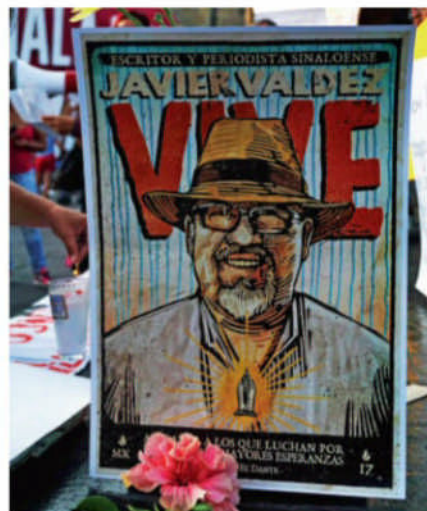
Mr Temer fiercely denies the reports. His office issued a statement saying that he had indeed met Mr Batista, but had “never solicited payments to obtain the silence” of Mr Cunha. It said there was “no discussion that would compromise the conduct of the president”.

But the reports have thrown Brazil into turmoil. Immediately after they were published the opposition filed a motion for impeachment in congress. “The government’s backbone has been broken,” declared Alessandro Molon, a leftist congressman who is its author. Hundreds of protesters took to the streets in several cities after the news broke, demanding a fresh election. The real slumped after *O Globo*’s report, as did an index that tracks Brazil’s stockmarket.

The markets’ worry is that the scandal will derail the vital economic reforms that Mr Temer introduced after he took over as president from Dilma Rousseff, who was ▶▶

Reporter, poet, RIP

At least four Mexican journalists have been killed this year for their reporting, according to the Committee to Protect Journalists (CPJ). Since 2007 66 have died violently. On May 15th unknown assassins murdered one of the finest, Javier Valdez, in the state of Sinaloa. Mr Valdez was a co-founder of *RíoDoce*, a weekly publication that covers corruption and the bloody wars between drug-trafficking gangs. The CPJ says he “combined the grit of the most battle-hardened reporter with the elegiac soul of a 19th-century Romantic poet”. The death toll is so high that earlier this month the attorney-general’s office replaced the chief of its division for “crimes against freedom of expression”.



► impeached last August. He has already pushed through a constitutional amendment to freeze government spending in real terms for 20 years. He is now pushing for an overhaul of the country's unaffordable pension system, without which the spending freeze will be meaningless, and of its rigid labour laws.

Neither reform is popular. But, by holding out the prospect that Brazil will at last control its unsustainable public debt and improve its labour market, they have helped to restore confidence to an economy that remains mired in its worst-ever recession. Inflation has fallen from double-

digit rates to below the central bank's target of 4.5%, allowing interest rates to fall. Unemployment may at last have stopped rising. Real wages may no longer be falling. The *Globo* revelations will delay the reforms, if they do not stop them altogether.

It is far too soon to expect Mr Temer to be forced out of office. A motion to impeach him must be accepted by the speaker of the lower house, Rodrigo Maia, a staunch presidential ally. It would then have to pass with two-thirds majorities through both houses of Congress, where Mr Temer still has strong backing. The constitution rules out a fresh election. When a

president leaves office with less than two years left in a term and has no vice-president to succeed him, Congress, not the voters, chooses the next president. Mr Temer has 19 months left to serve.

All this is scant comfort to Brazilians who hoped that Mr Temer would succeed in reforming the economy before handing over to an elected successor. His approval rating, already a dismal 20%, is sure to sink. Unless he can clear his name quickly, the political atmosphere will become more toxic. The consequences of *O Globo's* revelations are incalculable, but they are certainly not good. ■

Bello | Ecuador waits for Lenín

And wonders whether he will be less revolutionary

IN A burst of hyperbole and historical confusion, Rafael Correa compared the run-off election in Ecuador last month to "the battle of Stalingrad" in which his left-wing government was "fighting against the global right wing". Yet the outcome was far from the rout achieved on the Russian steppes: rather, Mr Correa's candidate, Lenín Moreno, achieved a narrow victory, by 51% to 49% over Guillermo Lasso, a conservative banker. Even so, the result interrupted the recent ebbing of the "pink tide" in South America that has seen several electoral victories for the centre-right.

The prospects for Mr Moreno's presidency, which begins on May 24th, are unusually uncertain. His first task is to establish his legitimacy in practice. Some in the opposition question his victory. The electoral authority's computers briefly shut down with Mr Lasso in an early lead. The police raided Cedatos, Ecuador's most reliable polling firm, confiscating its computers, after it published an exit poll giving Mr Lasso victory. The government-controlled electoral authority refused Mr Lasso's demand for a full recount. Nevertheless, the region's governments were swift to congratulate Mr Moreno. Preoccupied by Venezuela, the last thing they want is another conflict.

Mr Moreno owed his victory mainly to Mr Correa's achievements over more than a decade in power. Helped by the high price of oil for much of his tenure, he brought stability to a country that had seen eight presidents, three coups and a currency collapse in the previous 11 years. He invested in new roads, hospitals and social assistance, while also boosting public employment. The poverty rate fell from 40% in 2006 to 23% last year. He used his popularity to create an elected autocrat.



tions law, the media have faced stiff fines when they have published articles the president considers defamatory and—even more outrageously—when they have not published articles he thinks they should.

In the end Mr Correa overreached. He failed to save any of his petro-windfall. As oil revenue fell, and public spending with it, the economy has been contracting for almost two years. The president lost the urban middle classes when he tried to raise taxes. A more united opposition might easily have won the presidential election. Mr Correa's Alianza PAIS (Country Alliance) party received only 39% of the vote in February's legislative election, though it won 74 of the 137 seats in the National Assembly thanks to gerrymandering.

All this means that Mr Moreno has a difficult inheritance. The most important question for Ecuador, so far unanswered, is whether he is his own man, or merely Mr Correa's stooge. And if he is independent, what kind of politician is he? In a wheelchair since he was mugged in 1998, Mr Moreno was Mr Correa's vice-president from 2007 to 2013. He is more conciliatory than his combustible predecessor. He has

friends in the private sector, but also among left-wingers who fell out with Mr Correa. Which of these two groups he favours will become clearer once he announces his cabinet.

Whatever his preferences, his actions are likely to be constrained by Ecuador's difficult circumstances. The fiscal deficit has averaged 5% of GDP since 2013. Because the country uses the dollar as its currency, it cannot print money. It has plugged the gap partly through issuing international bonds, but investors are now demanding an interest rate of around 10%.

Last month Mr Moreno received Yanis Varoufakis, a leftist former Greek finance minister and now a well-paid star of the speaker circuit, who urged on him the virtues of paying suppliers and public workers with electronic money. Mr Correa enacted laws to allow this. But any attempt to use them to finance the deficit risks triggering a run on banks and capital flight, as savers might fear that their money would not be returned in dollars. Dollarisation is popular, though. Mr Moreno's choices may thus come down to cutting spending with an IMF agreement or without one. Neither is politically palatable.

Ecuador is not Venezuela, thanks partly to its dollarisation and to the independence of the armed forces. But neither does it enjoy vigorous checks and balances. Mr Moreno does not criticise Mr Correa's "21st-century socialism", a term copied from Hugo Chávez, but he says its time has passed. "Now a new time is coming," he promises, marked by dialogue and tolerance. He has made a vague promise to reform the communications law.

Mr Correa plans to move to Belgium, his wife's home country. Left to his own devices, Mr Moreno might engineer a soft landing for Ecuador, both economically and politically. Will he be allowed to?



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South Africa

Boo-er war

JOHANNESBURG

As the ANC wonders who will replace Jacob Zuma, the country wonders what will replace the ANC

IN THE twilight of his unpopular presidency, Jacob Zuma has to vet his crowds carefully. Almost wherever he speaks, he risks a clamour of boos and jeers, many from members of his own party, the African National Congress (ANC). A rally organised by the country's main trade union federation, which is formally allied with the ANC, should have been a perfect opportunity for him to drone on about the party's achievements since ending white-minority rule in 1994. But he never got the chance to speak; union members shouted him down. Two of his closest supporters were also heckled at May Day rallies in different cities on the same day. Unionised workers, who in past elections made up most of the activists going door-to-door to canvas for the ANC, are turning against a tainted president, and against a party that excuses his many scandals.

Mr Zuma's second and final term of office still has two years to run. Yet the race to succeed him is already on. A lot rests on this transition. It could determine whether the country's democratic institutions are revived, or whether South Africa descends further into a swamp of corruption and stagnation. "They are demanding bribes to get anything done," laments one businessman, adding that it was not nearly as bad under previous ANC presidents.

Many people assume that the ANC will win a majority of the national vote in 2019

and that the party leader will therefore be the next president. That party leader will be picked at a congress in December. Mr Zuma hopes to anoint a successor who will shield him from the 783 charges of fraud, corruption and racketeering he faces, which predate his presidency. He is backing his ex-wife, Nkosazana Dlamini-Zuma, a former head of the African Union.

Her main opponent is Cyril Ramaphosa, Mr Zuma's deputy and a former trade-union boss turned tycoon (the two are pictured either side of Mr Zuma). Mr Ramaphosa is capable and rails against corruption. He has backed a call by Thuli Madonsela, a former public protector, for a judicial inquiry into allegations that Mr Zuma's rich friends have unduly influenced cabinet appointments and state contracts. Pravin Gordhan, a popular finance minister fired by Mr Zuma, has spoken in favour of Mr Ramaphosa. So too have both of the ANC's allies, the South African Communist Party and the Congress of South African Trade Unions.

That said, Mr Ramaphosa may not win over enough delegates at the party congress. Many have benefited from the looting of state resources that has proliferated during Mr Zuma's presidency. Mr Ramaphosa has complained about car boots full of cash being used to buy support. A survey by Rand Merchant Bank (RMB) predicts that Ms Dlamini-Zuma will be the

next leader of the ANC.

However, it is not only ANC grandees who will vote. So, in the general election, will ordinary South Africans. Some party members fear that in 2019, for the first time, Africa's oldest liberation movement will fail to win a majority. The party, which won 62% of the vote in 2014, has lost its lustre under Mr Zuma.

Last year it lost power in several of South Africa's biggest cities. Municipal IQ, a research firm that has analysed the results of local elections in 2011 and 2016, when support for the ANC slumped from 62% to 54%, reckons it could fall below 50% nationally in 2019. RMB's survey found a "meaningful probability" that the ANC would lose power.

Many in the ANC are nervous. Discussion documents released ahead of a party policy conference that will be held from late June fret about "internal squabbles, money politics, corruption and poor performance in government", and even "the hollowing out of the capacity of the democratic state". Zweli Mkhize, the ANC's treasurer, accepts that the ANC "needs to put its house in order". However Mr Mkhize, like many other senior figures in the ANC, is unwilling to criticise Mr Zuma openly.

He's still the boss

This deference is partly due to tradition—during the ANC's many years in exile, internal dissent was stifled—but also because potential rebels are afraid. Mr Zuma wields immense formal powers. As president, he can sack cabinet ministers. And Mr Zuma remains the boss of the ANC, which can kick MPs out of parliament by expelling them from the party if they break ranks on a big vote.

However, a case before the Constitutional Court may weaken Mr Zuma's hold. ►►

Opposition parties have asked the court to allow MPs to cast secret votes in a motion of no-confidence. Mr Zuma has already survived four no-confidence votes and two motions for impeachment because of his iron grip on the party. But secrecy might make ANC MPs braver. And only a quarter of them would have to side with the opposition to kick Mr Zuma out.

However, even if Mr Zuma and his cronies are on their way out, they can still do enormous harm. Take the case of Brian Molefe, who just a few months ago was forced to resign as head of Eskom, the state-owned electricity monopoly, after the public protector found he had a “cosy relationship” with pals of the president who had won big contracts from the utility. This week he was reappointed to the post to push through Mr Zuma’s plan to spend as much as 1trn rand (\$76bn) on Russian nuclear power plants that will not help at all with South Africa’s immediate energy needs. “The ANC is simply incapable of reforming itself,” says Mzukisi Qobo of the University of Johannesburg, a co-author of “The Fall of the ANC: What Next?” “We are in for a rough ride.” ■

Race and class

Blurring the rainbow

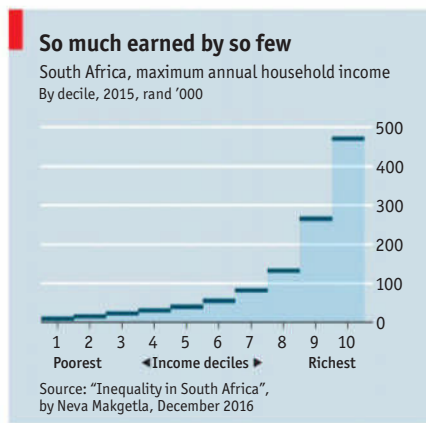
SOWETO

South Africa’s inequality is growing less racialised; that will make it harder to fix

IN KLIPTOWN, an old neighbourhood of Soweto, a group of perhaps 30 men stand in a huddle shouting at cars. One drags a large plastic barrier into the road, while a couple of others pour fuel into old tyres to make burning barricades. It is the sort of protest that disrupts life in or around Johannesburg every few days. What the men want is simple, explains Bongani Godfrey Ndaba, a 37-year-old with a thick mat of hair: a better standard of living.

Most live across a railway line from the road they are blocking, in a warren of crumbling old brick “matchbox” houses and newer tin shacks. Mr Ndaba points out the rubbish that litters the entrance to the neighbourhood, and the mucky water that pours down the muddy streets. “The rich get richer; the poor get nothing,” he says. “There are just empty promises.” As he speaks, the boom of tear-gas grenades comes from the road, indicating that the police have arrived.

Witness such a scene, a few minutes’ drive away from where the Soweto uprising of 1976 started, and it would be easy to believe that not much has changed in South Africa since the end of apartheid. Among 154 countries surveyed by the



World Bank, the country has the highest (meaning worst) Gini coefficient, a measure of inequality. That is probably not quite right: it is hard to believe that Angola, a kleptocratic petro-state, is really more egalitarian. But it cannot be far off. Nor, at 0.63, has the figure changed much over the years. Most black South Africans are still poor, and most income still flows to a small elite. Yet despite appearances, things are not the same as in 1994. The biggest difference is that now a rather large part of the economic elite is black.

In absolute terms, the poorest have not in fact done too badly. As the economy grew from 1994 to around 2009, GDP per person increased considerably, as did employment. As a result, living standards jumped. From 2001 to 2015, the share of the population living in LSM 1-3 (the three bottom tiers of a ten-point scale of living standards) shrank from almost 40% to 10%. Since 1996 the number of people living in proper houses has more than doubled; the numbers with access to lavatories and electricity have grown by even more.

Racial disparities in living standards have also narrowed. In 2004 whites, who are 8% of the population, made up 86% of those in the top bracket of living standards. By 2015 that share had fallen to 49%. Blacks made up 30%. That is partly because more blacks have been able to move into government jobs, which often pay well. But business and education have opened up, too. One survey of firms found that whereas in 1996 blacks made up just 8% of company executives, by 2015 they made up 41%. Before the end of apartheid, South African universities produced 44 white engineering graduates for every black one; by 2014, there were two blacks for every white.

Even so, overall inequality has not fallen. Imraan Valodia of the University of the Witwatersrand says one reason is that economic growth has generally benefited the best-educated. “Those with skills—the upper middle classes—did very well.” As big South African firms re-entered the global economy after the end of apartheid, and global firms moved to South Africa, room at the top became available for the black

middle class. But it did not create as much opportunity for less-educated people or in areas far from big cities, which were kept going with redistributive spending. Between 2001 and 2015, the number of social grants given to the poor increased from 4m to almost 17m. Some 10.6m people receive such grants—more than the number who have formal jobs.

The fortunes of both rich and poor can improve together only when the economy is growing quickly, says Frans Cronje of the Institute of Race Relations, a think-tank. Sadly, growth has stagnated since the beginning of the economic crisis in 2009, and seems unlikely to pick up soon. Jacob Zuma, the president, has taken to speaking about the need for land redistribution. Malusi Gigaba, his new finance minister, is a loud proponent of “radical economic transformation” to make the country more equal, much to the consternation of investors. Yet many South Africans suspect that the real agenda is to direct more resources not to the poor but to the political elite. That policy has only one egalitarian conclusion: a country in which the whole country is poorer. ■

Ivory Coast

Moneygrubbing mutineers

BOUAKÉ

Rebel. Cash in. Repeat

AS STRIKES go, this one was resolved remarkably quickly and with an unusually one-sided result. The reason, quite simply, is that these strikers had guns. Just days after some 8,400 mutinous soldiers marched out of their barracks in Ivory Coast, shooting in the air and blockading roads, the government had caved in, paying each of them 5m CFA francs (\$8,400) and promising to give them another 2m before the end of June. But not before one person had been killed by stray gunfire.

This was the second mutiny by soldiers in the country this year. In January disgruntled troops, many of them former rebels who had fought in a civil war in 2011, took to the streets claiming they had been underpaid ever since the end of that conflict. The president, Alassane Ouattara, who was helped into power by the rebels in 2011 after his predecessor, Laurent Gbagbo, tried to steal an election, quickly acceded to their demands. The first mutiny ended with an immediate payment of 5m CFA francs and a promise of 7m more. “If [the government] respects us, they won’t hear from us,” one mutineer, a lean, muscular 34-year-old, told your correspondent in Bouaké between the two uprisings. “We ▶▶



Would you say no to him?

► are victims.”

Yet it was a dispute over the promised bounty that sparked the latest mutiny. On May 11th a spokesman for the mutineers said on state television that they were no longer demanding the rest of the money. Yet he did not speak for his fellows, who quickly took up arms again and blocked roads including one to Bouaké, the country's second-largest city. This time Mr Ouattara, a former economist at the IMF, dispatched loyal army units to end the mutiny by force. But after a brief stand-off he decided once again to pay the rebels instead.

Yet the government can ill-afford the total bill of 101bn CFA. On May 10th it announced a 54bn CFA budget cut in response to a fall in the price of cocoa, which accounts for more than 40% of exports. And the first uprising has already sparked demands from others. Ivory Coast's 200,000 civil servants walked out for three weeks in January, claiming they were owed 196bn CFA in unpaid wages, an issue which has yet to be resolved. Several thousand former rebels who were demobilised in 2011 have said they want their share too; many still have weapons.

The mutiny takes the shine off Ivory Coast's recent successes. After years of economic stagnation and two civil wars (the first started in 2002), the economy had been rebounding, with growth of about 8% a year. Inflation has been subdued, helped by the stability of the CFA, which is pegged to the euro and backed by the French treasury. Foreign investors have flocked to the country. Heineken recently built a €150m (\$167m) brewery in what its enthusiastic local boss, Alexander Koch, says was a record 13 months. “The middle class is a reality,” says Laureen Kouassi-Olserson of Amethis, a private equity firm. “Five years ago consumption relied on expats.”

The economic boom has been driven by infrastructure investment that has largely been concentrated in the commercial

capital, Abidjan. Little wealth has trickled down. Between 2008 and 2015 the proportion of the population who are poor fell by just 2.6 percentage points, to 46.3%.

Mr Ouattara, who is due to stand down in 2020, had promised to cut poverty in half before then. His failure to make such rapid progress is already raising questions over his succession. The opposition party of the deposed president is divided. A moderate faction wants to contest the elections; hardliners want to boycott them until Mr Gbagbo is released by the International Criminal Court, where he is standing trial on charges relating to violence after the elections in 2010. Among the contenders from the ruling coalition are the current prime minister, Amadou Coulibaly, a Ouattara ally, and the president of the National Assembly, Guillaume Soro, who led the rebels during the civil war.

If Ivory Coast has a peaceful succession it could regain the status it had in the 1970s as an economic powerhouse. But to do so it will have to strengthen state institutions and bring former rebels under control. It will not cut poverty or cement its democracy if it keeps getting held hostage by men with guns. ■

Human rights in the Middle East

Hack me if you can

CAIRO

Governments are paying millions to snoop on dissidents

ONLY a few hours after Azza Soliman, an Egyptian feminist, was arrested in December her colleagues received an e-mail supposedly containing her arrest warrant. It was a sham—slickly designed bait to lure them into handing over their passwords. The messages, sent while Ms Soliman was still being interrogated by police, were probably the work of the state security services. Researchers have documented nearly 100 similar hacking attempts to gain information from some of the country's most prominent NGOs and journalists.

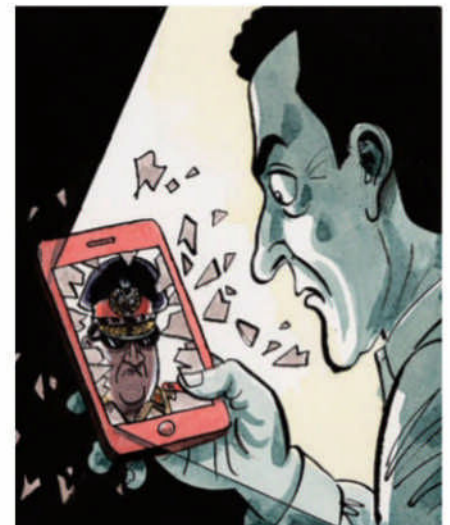
The subterfuge in Egypt is indicative of a wider trend. Governments across the Middle East are turning to hackers to target bothersome activists and intercept or block their encrypted communications.

A text message sent last year to Ahmed Mansoor, a human-rights advocate in the United Arab Emirates (UAE), shows the extent of the effort. It promised “new secrets” about tortured prisoners, if he clicked on the link. Instead, Mr Mansoor forwarded the message to cyber-security researchers at Citizen Lab, a Canadian research institute. They recognised the link as one associated with the NSO Group, an Israeli com-

pany that sells spyware to governments. Behind it lay three “zero-day” vulnerabilities—previously unknown software flaws—that allowed hackers to take control of an iPhone to turn it into the ultimate spy tool. Nothing like it had ever been seen before. Citizen Lab reckons the cyberweapon may have cost as much as \$1m.

Many states in the region don't know how to spy on their citizens' computers or phones, so a lucrative industry has emerged to satisfy their needs. Hacking Team, a company in Milan that sells spying software, was itself hacked in 2015. Leaked documents showed that it had contracts with Morocco, the UAE and Egypt. FinFisher, a spyware program sold by a German company, has been detected in many countries with poor human-rights records such as Egypt, Saudi Arabia and Turkey. And last year Bahrain posted a tender for a “national website filtering solution”. It was won by Netsweeper, a Canadian company, for \$1.2m. Although national security is the professed motive for these purchases, the spyware is often used to snoop on dissidents. Mr Mansoor, the UAE activist, has had the triple misfortune of being targeted by spyware from Hacking Team, FinFisher and NSO Group.

In turn activists in the region are using encrypted services for browsing and messaging. Messages from these services are hard to crack, so governments are looking for ways to circumvent or block them. Telegram, an encrypted messaging application, has nearly 20m users in Iran. The authorities there have asked the company to move its servers inside the country, where they may be monitored more easily. And access to Tor, an anonymous browser, was systematically disrupted in Egypt last year. In December, Signal, a secure messaging application used by activists, was cut off in Egypt and the UAE. Since President Abdel-Fattah al-Sisi declared a state of emergency in Egypt in April, technology experts have noted disruptions to other popular, and ►►



encrypted, communication tools such as FaceTime, WhatsApp and Skype.

Yet some companies also make life hard for government snoops. The developers of Signal, for example, quickly pushed out a fix that made its internet traffic indistinguishable from requests to Google servers. To shut down Signal the government would also have to block access to Google.

Not all the spooks are adept at using their new spyware. Some have admitted privately to losing control of their systems, says one Egyptian cyber-security expert. "There are no skilled cooks in the kitchen," he says. "Cowboy users" sometimes inadvertently leave clues about the spyware they are using.

Still, the proliferation of spying tools

means that even half-competent spooks can have a chilling effect. Some activists discuss sensitive matters only in person, with phones turned off and placed in another room. "The space available for expressing opinions is slowly narrowing," warns Gamal Eid, the director of a human-rights organisation whose e-mail account was among those attacked. When one Egyptian freelance journalist awoke one morning to an alarming message from Google that "government-backed attackers may be trying to steal your password", she panicked and cleared her laptop of everything that could be considered "inappropriate opposition". Among the files she deleted were articles she had written, including her drafts. ■

party. Ennahda wants amendments to ensure that the law does not undermine the work of the Truth and Dignity Commission, which is examining the sins of the old regime. The current bill would "sabotage" that effort, says Human Rights Watch, a pressure group based in New York.

Critics fear that forgiving corruption will encourage more of it. Whereas Mr Ben Ali and his family benefited from the lion's share of pre-revolutionary graft, the filching has become "democratised", says Lotfi Zitoun of Ennahda. The old elite from Tunisia and the coast still do well out of their government connections. But a new class of crooked businessmen, with ties to current leaders, has emerged since the revolution. In the interior merchants have prospered from smuggling and trading in contraband. They have money to invest but cannot get credit and government permits, which are guarded by the old elite.

The bill does little to address the problems that make corruption so prevalent, says Issandr El Amrani of the International Crisis Group. In a new report, the think-tank recommends several reforms. First, the government should boost funding for the anti-corruption authority. Simplifying administrative procedures would reduce opportunities for backhanders. Influence-peddling could be curtailed by a legal framework for lobbying and transparency over party finances.

But that may not be enough. Members of the old elite are reluctant to give up their advantage. Businessmen from the interior, relegated to the informal economy, see the state as a predatory hindrance. Corruption and regionalism have left the public bitter and distrustful of the state. Fixing all this may require something like a national economic dialogue, similar to the political one that kept Tunisia's democracy on track in 2013, says Mr Amrani. More reconciliation is needed, not less. ■

Corruption in Tunisia

To forgive is divine

CAIRO

Tunisians are at odds over whether to let powerful crooks off the hook

SHOUTING "no to forgiveness" may sound awfully cruel. But on May 13th thousands of Tunisians marched through Tunis, the capital, waving banners with that slogan. They were protesting an "economic reconciliation" bill that would give amnesty to businessmen and officials accused of graft during the rule of Zine el-Abidine Ben Ali, the former president. The staggering corruption of his regime was one of the sparks of a revolution that forced Mr Ben Ali from office six years ago and ignited the Arab spring.

The new protesters say they are defending the spirit of the revolution. But Tunisia's leaders say the bill is needed to spur investment in an ailing economy. It would let businessmen and bribe-trousering officials secretly declare their ill-gotten gains and repay them to the state. It is hoped that businessmen who do not fear arrest would start investing. Officials, meanwhile, are stalling approvals to apply pressure on the government to grant the amnesty.

The government hopes that it will recover billions of dollars under the law. It could certainly use the money to plug a budget deficit of 5.9% of GDP this year. And even after borrowing billions of dollars from the IMF, the state is struggling to pay its employees each month. Youssef Chahed, the prime minister, has proposed sweeping austerity measures, such as firing civil servants, raising taxes and suspending investment in infrastructure.

The thrift has not gone down well with Tunisians, who are already suffering from an unemployment rate of about 15%. In the country's neglected interior protesters de-

manding jobs and a share of their region's oil revenues have blocked roads, halting oil and phosphate production. In response, Beji Caid Essebsi, the president, has deployed soldiers to guard industrial sites, warning that Tunisia's "democratic path has become threatened".

Most MPs think that some form of amnesty will help the economy, but—as with much of his agenda—Mr Chahed has not yet mustered the votes to pass the draft law. It remains stuck in parliament, where it has been for two years. To pass it the government needs the backing of Ennahda, the biggest party in parliament and a coalition partner of Mr Chahed's Nidaa Tounes



Two, four, six, eight, don't let their loot appreciate!



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Racial preferences in Malaysia

Malays on the march

KUALA LUMPUR

Affirmative action is failing poor Malaysians

THERE is something odd about MARA Digital, a cluster of stalls selling laptops, mobiles and other gizmos on the second floor of a shopping centre in Kuala Lumpur, Malaysia's multicultural capital. No ethnic-Chinese or -Indian entrepreneurs are allowed to do business here. Spots in the market are reserved for Malays, the country's majority race. The year-old venue was set up with subsidies from the government, which insists that its experiment in segregated shop-holding has been a big success. It has already launched an offshoot in Shah Alam, a nearby city, and talks of opening at least five more branches this year.

This project is just one recent outcome of racially discriminatory policies which have shaped Malaysian society for more than 50 years. Schemes favouring Malays were once deemed essential to improve the lot of Malaysia's least wealthy racial group; these days they are widely thought to help mostly the well-off within that group, while failing the poor and aggravating ethnic tensions. Yet affirmative action persists because it is a reliable vote-winner for the United Malays National Organisation (UMNO), the Malay party that has dominated government since independence. Malays are more than half of the population, so their views carry weight.

Last month UMNO launched a fresh batch of race-based giveaways. Harried by claims that it allowed billions to be looted

from 1MDB, a state investment firm, and preparing for an election that may be called this year, the party looks disinclined to consider reform.

Affirmative action in Malaysia began shortly after the departure in the 1950s of British colonial administrators, who had opened the cities to immigrant merchants and labourers from India and China but largely preferred to keep Malays toiling in the fields. The practice accelerated after 1969, when a race riot in the capital killed scores. (Most of the victims were Chinese.) The New Economic Policy (NEP) of 1971 had two goals: to reduce absolute poverty across all races, and to boost in particular the prospects of Malays, whose average income at the time was roughly half that of their Chinese compatriots.

A temporary eternity

Although the NEP's authors believed affirmative action would be needed for only 20 years, the practice has continued ever since, as such "temporary" policies typically have in other countries. Malaysia's *bumiputeras*, which means "sons of the soil" and which refers both to Malays and to a number of indigenous groups deemed deserving of a leg-up, have accumulated a panoply of privileges. Some of these are enshrined in legislation; others are left unwritten. These include quotas for places at public universities; preferment for government jobs; discounts on property pur-

chases and access to a reserved slice of public share offerings.

Since the NEP's inception Malaysia's economy has grown enormously. Its people are now the third-richest in South-East Asia, behind only Singapore and oil-soaked Brunei. Affirmative action has helped to narrow the difference between the incomes of Malays and other races. But pro-*bumiputera* schemes are almost never means-tested, so their benefits have accrued disproportionately to already wealthy urbanites, allowing poverty among the neediest Malays to persist.

Meanwhile the lure of the public sector—which was expanded to create more posts for *bumiputeras*, and in which Malays are now vastly over-represented—has sapped entrepreneurial vigour among Malays, as has a welter of grants and soft loans for *bumiputera* firms. Race-based entry criteria have lowered standards at Malaysia's public universities; so has the flight of non-*bumiputera* academics who sense that promotions are no longer linked to merit. These days Chinese and Indians largely end up studying in private institutions or abroad, in effect segregating tertiary education. Many of those who leave the country do not return.

None of this is lost on the ruling party. For some years UMNO was split between hardline supporters of affirmative action (like the demonstrators pictured above) and moderates dismayed by the distortions it has brought. In an unusually candid paper published in 2010, the new government of Najib Razak, the prime minister, admitted that affirmative action had created an "entitlement culture and rentier behaviour". It mooted swapping race-based policies for action intended to lift the incomes of Malaysia's poorest 40%, regardless of ethnicity. Yet within months that suggestion was quietly abandoned. ►►

▶ Since then the party's thinkers have grown more risk-averse. UMNO almost fell from power at a general election in 2013, when minority voters abandoned its coalition partners. Since early 2015 it has been trying to distract attention from the theft of billions of dollars from 1MDB (American investigators allege that \$681m of the state firm's money was paid to the prime minister, a charge Mr Najib denies). Neither of these near-death experiences appears to have prompted much soul-searching. Instead the party is trying to preserve support among Malay voters by reinforcing pro-Malay policies and by building bridges with PAS, an Islamist opposition party that is growing more extreme.

Optimists argue that the government has not completely abandoned reform. An efficiency drive has called attention to the public sector's bloated state, even if the material gains from the effort are unclear.

And whereas UMNO's leaders once boasted of their desire to create Malay millionaires, recent schemes are more likely to aid small and medium-sized firms. But this is all rather modest—particularly when ugly racial rhetoric is on the rise.

Malaysia's failing system of race-based preferences will probably not attract the criticism it deserves in the run-up to the next general election, which Mr Najib may call later this year and which he is likely to win. Opposition parties are keen to show poor rural Malays that UMNO's policies have shortchanged them, but tend not to openly bash the notion of race-based affirmative action. Egged on by bigots, some Malays have come to see their economic privileges as a right earned by their ancestors when they first settled the territory, not as a temporary leg-up. Meritocracy and the distribution of benefits based on need remain distant prospects. ■

ing a car, deeming the arrangement illegal taxi. Some prefectures have begun prosecuting people who ride their bicycles through red lights.

In 2015 a man was arrested for scribbling Adolf Hitler moustaches onto posters of Shinzo Abe, the prime minister. Ms Takayama says detectives have started appearing without permission on university campuses, to monitor "troublesome" students. One reason why police are going after cyclists may be to make up for the steady fall in driving offences. (Both drivers and cyclists can avoid fines by signing up for remedial training at certified driving schools, which are often staffed by retired officers, notes Colin Jones of Doshisha University.) Fifteen years ago police in Hokkaido, in Japan's sparsely populated north, conspired with *yakuza* gangsters to smuggle guns into the country so they could meet quotas for finding them.

The hunt for things to do may sometimes be beneficial. The number of reported cases of children being abused at home has almost doubled since 2010, despite the declining birth rate. That suggests the police are increasingly intervening in the domestic sphere, which they used to avoid.

Even critics of Japan's justice system accept that it gets a lot right. Rates of recidivism are low and a great deal of effort is made to keep young offenders out of the prison system; police work with parents to keep young people on the straight and narrow. Adults are incarcerated at a far lower rate than in most rich countries: 45 per 100,000, compared with 146 in Britain and 666 in the United States.

Yet the police are oddly inefficient. Even though there are so many officers and so few crimes, they solve less than 30% of them. Confessions, often made under duress, form the basis of most criminal prosecutions. The courts dismissed the case of the beer thief in Kagoshima, despite all the work that went into it. Japan is almost crime-free not thanks to the police, says Yoshihiro Yasuda, a campaigning lawyer, but because people police themselves. ■

Law enforcement in Japan

Petty officers

TOKYO

As the police run out of things to do, they are becoming more inventive

THE stake-out lasted a week, but it paid off in the end. The tireless police of Kagoshima, a sleepy city in the far south of the country, watched the unlocked car day and night. It was parked outside a supermarket, and contained a case of malt beer. Finally, a passing middle-aged man decided to help himself. Five policemen instantly pounced, nabbing one of the city's few remaining law-breakers.

Japan's cluttered streets are not always pretty but they are remarkably safe. Crime rates have been falling for 13 years. The murder rate of 0.3 per 100,000 people is among the lowest in the world; in America it is almost 4 (see chart). A single gun slaying was recorded for the whole of 2015. Even *yakuza* gangsters, once a potent criminal force, have been weakened by tougher laws and old age.

Yet, far from being pensioned off, the police are growing in numbers: beat cops, known colloquially as *omawari-san* (Mr Walk-around), are a fixture in most neighbourhoods. Japan has over 259,000 uniformed officers—15,000 more than a decade ago, when crime rates were far higher. The ratio of officers to population is very high, especially in Tokyo, home to the world's biggest metropolitan police force—a quarter bigger than the one protecting New York.

This means plenty of attention for crimes that would be considered too petty to investigate elsewhere, such as the theft

of a bicycle or the possession of a tiny amount of drugs. One woman describes how five officers crowded into her cramped apartment after she reported her knickers being swiped from a clothesline. A small army of detectives was assigned last year to apprehend a group of 22 people who had been growing marijuana for their personal use only and smoking it in deserted rural spots.

In fact, as the police run out of things to do, they are becoming more inventive about what constitutes a crime, says Kanako Takayama of Kyoto University. In one recent case, she says, they arrested a group of people who had shared the cost of rent-



nian and anachronistic *lèse-majesté* law with greater relish than its predecessors.

At least 105 people have been detained or are serving prison sentences for *lèse-majesté*, compared with just five under the elected government the junta overthrew in 2014. Many of them posted critical comments about the royal family on social media; some simply shared or “liked” such comments. Other arrests have been on even pettier grounds. Jatupat Boonpattaraksa, a student activist, is on trial for sharing a profile of King Vajiralongkorn published by the BBC’s Thai service. Police have warned that those agitating for his release could themselves face charges. A well-known academic, Sulak Sivaraksa, remains under investigation for several instances of *lèse-majesté*, including questioning whether a 16th-century battle involving a Thai king really took place.

This month security forces arrested Prawet Prapanukul, a human-rights lawyer best known for defending *lèse-majesté* suspects. He risks a record 150 years in jail if convicted of all ten counts of *lèse-majesté* he faces. Several recent sentences for insulting royals have exceeded 50 years; the standard for murder is 15-20 years.

The government is also pushing YouTube and Facebook, as well as local internet firms, to remove content deemed critical of the monarchy. The junta demanded that Facebook block 131 “illicit” pages by May 16th or be blocked itself in Thailand. In the end it let the deadline slide, but it is still passing on court orders to oblige Facebook to take down the offending posts. It says Facebook is co-operating. One blocked post shows the king, who spends most of his time in Germany, strolling through a mall in a yellow “crop top” that reveals elaborate tattoos.

Exiled critics of the monarchy and their foreign defenders are also in the junta’s sights. In April it issued an order prohibiting Thais from interacting on social media with a trio of prominent dissidents abroad, including the one who posted the video of the king. It fiercely protested the decision of South Korea’s 18 May Foundation, named in honour of an uprising that was crushed by the army, to award its annual human-rights prize to Mr Jatupat.

Thai kings have a long history of fostering democratic reform, but the army does not seem so protective of that. Last month a brass plaque in Bangkok that commemorated the king’s acceptance of constitutional government in 1932 mysteriously disappeared. Prayuth Chan-ocha, the leader of the junta, has scolded Netiwit Chotiphaphaisal, a student activist, for campaigning against a tradition whereby students at Thailand’s grandest university prostrate themselves in front of a statue of its eponymous founder, King Chulalongkorn. Never mind that King Chulalongkorn himself abolished prostration in 1873. ■

Shark attacks in Australia

Fatal shore

PERTH

The death of a surfer prompts a row about how to keep swimmers safe

MANY Australians dislike their country’s reputation as a hotbed of deadly creatures, but it is a brave surfer who has never felt a prickle of anxiety at what lurks beneath the surf. Laetia Brouwer, a teenager who was recently killed by a shark in Western Australia, was the state’s third such fatality in under a year, and the 14th nationwide since 2012. Her death has reignited a debate over how to deter attacks in a country that may have lost a prime minister to one (though it is more likely that Harold Holt, who vanished while swimming in 1967, simply drowned).

Certain endangered species of shark, including the great white, have been protected in Australia since the 1990s. Swimmers and surfers worry that their numbers are rising: the rate of unprovoked attacks doubled between that decade and the 10 years to 2015. Responsibility probably lies with a growing human population, but “any fisherman will tell you that they see more sharks than before,” says Neddy Van Dyck, a surfer and spear-fisherman formerly based in Esperance, where Ms Brouwer was killed. “It’s a risk I consider every time I go into the ocean.”

States can seek exemptions to the law protecting sharks, and sometimes grow vengeful after heavily publicised attacks. In 2014 Western Australia caught and killed 68 sharks measuring more than three metres using baited hooks known as “drum- ▶▶

Duh-dah, duh-dah, duh-dah

Lèse-majesté in Thailand

Don’t mention the crop top

BANGKOK

The military junta intensifies its hunt for critics of the monarchy

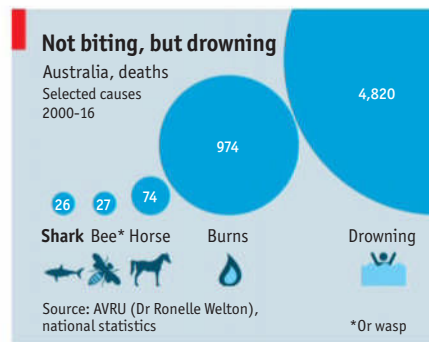
THE only historical record of Queen Chammathewi, the legendary founder of the Thai city of Lamphun, comes from a fanciful 15th-century chronicle written on palm leaves in an ancient liturgical language. It describes how, some time in the seventh century, she came to a spot that the Buddha had supposedly visited centuries before. With the help of a Buddhist ascetic, she conjured a city out of the jungle, subjugated the natives and begat not one, but two royal dynasties.

There is no proof that the queen (pictured) ever really existed, and she definitely falls outside the scope of Thailand’s law on *lèse-majesté*, which bars criticism only of the reigning king, queen, heir apparent and regent. But Thais should not feel they can say whatever they want about her. So, at least, a provincial court implied last month when it convicted a local of disseminating false or illegal material online for posting a lascivious comment about her on Facebook.

Thailand has always treated its royals with exaggerated respect, periodically clapping people deemed to have insulted the king behind bars. But some thought the death of the long-reigning King Bhumibol in October and the accession of the less-revered Vajiralongkorn might curb the monarchists’ excesses. Instead, it seems to have spurred them on. The military junta that runs the country is enforcing the draco-

lines". But this time the state government, now in the hands of the Labor Party, plans instead to subsidise purchases of personal deterrent devices which emit electromagnetic waves thought to ward off sharks. Their efficacy is debatable, but so is that of more lethal methods. Because fatalities are relatively uncommon, it is hard to prove the usefulness of drum-lines or nets around beaches (see picture on previous page). Conservationists hate these because they snag other, sometimes endangered, sea-life far more often than sharks.

Australians, who spend ever longer in the water, seem to take a similar view. In a recent survey of shark-afflicted parts of Western Australia, Christopher Neff of the University of Sydney was surprised to find that 75% of the population preferred cuddly tactics such as aerial patrols. A national research agency has tagged over 200 white sharks in an effort to monitor and predict their movements. New South Wales is trying out "smart" drum-lines which notify officials when they catch an animal, allowing it to be towed and released before it perishes on the line. "In the end, we all need to take personal responsibility for go-



ing in the water," Mr Van Dyck says.

The "harsh reality" is that locals will always face a "very small" risk of being attacked, said Western Australia's premier, Mark McGowan, after Ms Brouwer's death. In fact, the risk is infinitesimal. The same number of people died in attacks last year as in 1950, when the population was a third of its current size. Better emergency services mean that the vast majority of today's victims survive. Sharks may cause politicians to thrash about, but Australians run about the same risk of being killed by a bee or wasp (see chart). ■

Pensions in Taiwan

Superannuated

TAIPEI

The government tries to overhaul an antiquated and ruinous system

THE protests outside parliament got so ferocious that the 2,000 policemen defending the building barricaded it with barbed wire. That was soon festooned with angry placards. Inside, opposition politicians sought to disrupt parliamentary business: they seized the podium, and brawls broke out. In Taiwan, as everywhere else, reining in expensive pensions is not easy. But Tsai Ing-wen, the president, seems determined to press on. The current system, she said last month, is on "the brink of bankruptcy".

The government's liabilities have swelled to almost NT\$18trn (\$597bn), nine times its total annual expenditures. That is divided among funds for different professions, in which contributions from current workers help to finance payments to pensioners. The fund for civil servants is projected to go bust by 2031; the one for teachers by 2030; the one for private-sector workers in 2027; and the one for the armed forces in 2020.

The root of the crisis lies in Taiwan's rapidly declining birth rate and growing longevity, which means that there are fewer workers to support the swelling ranks of the old. In 2015 Taiwanese women were

projected to have just 1.2 children on average over the course of their lives, even as life expectancy passed 80 for the first time. A government study found that in 1996 there were nine working people for each pensioner. The ratio fell to six to one in 2015 and will be less than three to one by 2031. Sluggish economic growth and stagnant government revenues provide no way out.

Politics has made matters worse. When the Kuomintang party (KMT) fled to Taiwan in 1949, having lost China's civil war, it filled the army and public service with mainlanders and provided them with generous pensions. Native Taiwanese worked mainly in the private sector. Taiwan began to democratise in 1987, but the KMT continued to dominate parliament until last year, thanks in part to strong support from the public sector, whose expensive pensions it continued to defend. Over 450,000 retired teachers, soldiers and bureaucrats receive an annual payment of 18% of the lump sum they built up in their pension account before 1995—a commitment that cost the government NT\$78bn last year, or 4% of its spending. Benefits are not quite so generous for those who have retired more recently, but civil servants can still stop work

with lavish benefits at 55.

Ms Tsai and her Democratic Progressive Party want to reduce the 18% payout to 6% over six years, subject to a minimum payment to protect poorer pensioners from poverty. They also want to cut monthly pension payments for other civil servants and teachers while raising the retirement age to 65. In addition, the president has pledged to inject an extra NT\$20bn a year into the private-sector fund, which is much less generous. All this, the government reckons, will extend the life of Taiwan's pension funds by just 10 to 15 years or so.

Lin Wan-i, the minister in charge of these reforms, says young people want even more sweeping changes. They worry that there will not be a pension for them by the time they retire. Moreover, they consider the huge payouts to the old unfair. Taiwanese workers earn about NT\$39,500 a month on average. A typical monthly salary for a new university graduate is just NT\$22,000. But retired high-school teachers receive a whopping average pension of NT\$68,340 a month.

But pensioners see Ms Tsai's plans as a breach of trust. More than 100,000 people demonstrated against the reforms last year. The most dogged protesters have set up a camp outside parliament. And there is the delicate matter of reforming military pensions at a time of heightened tensions with China. Ms Tsai has not yet announced her plans for that, but Mr Lin says any changes will be less drastic.

A poll by TVBS, a local broadcaster, found that 61% of Taiwanese supported pension reform in principle, though 46% were unhappy with the government's handling of it. Ms Tsai can console herself with two thoughts. First, the fact that young and old alike are angry suggests she may be striking a fair compromise. Better still, the KMT is in too much disarray to take advantage of all the indignation. ■



Retired but not retiring



Third-tier cities

The glitter of bronze

WUHU

A property rally in mid-sized cities is speculative but not crazy

FOR years Wuhu, a city (pictured) in the poor central province of Anhui, was on the front line of a national effort to reduce a glut of unsold homes. New property developments stretched into the haze along the Yangzi river on the town's western edge. But buyers were scarce: although Anhui has a population about the size of Italy's, many of its people have long preferred to work in richer parts of the country. Officials in Wuhu tried to entice locals to buy homes, offering tax breaks. At one point they even promised to subsidise the cost, an act of desperation that made Wuhu an emblem of China's real-estate woes.

Since early 2016, however, the city's property prices have soared by more than 30%. Earlier this month the city sharply changed tack, introducing measures to curb speculation. For example, it required that buyers of new homes wait at least two years before selling. Developers were ordered to set prices within predetermined ranges. The city also vowed to expand the land available for development. The glut of unsold homes is, in other words, no more. A shortage is the new concern.

The striking improvement in Wuhu's property market has echoes around the country. It is one of the 60 or so cities deemed to be "third tier". The designation refers not just to their political ranking and size (medium by China's standards, with populations of roughly 1m-3m); until recently it also summed up prevailing sentiment about their prospects. Analysts and investors have generally been positive

about China's first-tier megacities (Beijing, Shanghai, Shenzhen and Guangzhou) and its second-tier giants, especially those in good locations such as Hangzhou in the east and Foshan in the south. But there was less enthusiasm for cities ranked in the third tier and below. They were seen as suffering from weak industrial bases, flimsy social services and a steady brain-drain as their most educated residents left for more exciting places.

Yet a rally in China's property market, which began in its big cities in 2015, is filtering down to these also-rans. Housing prices in third-tier cities are up by 7% over the past year on average, and by much more in the best performers (see chart). Their markets have remained hot this year, even while their bigger peers have cooled

off. This has helped to reduce the stock of unsold homes. The amount of housing for sale has fallen almost continuously for the past 14 months, the longest sustained decline since records began in 2001.

That would seem to be unambiguously good news. But a closer look at third-tier cities suggests caution is in order. Speculation has played a large role in their newfound prominence. Capital controls, progressively tightened over the past two years, have trapped cash in the country. After a stockmarket collapse in 2015, housing became the most appealing asset—all the more so when, to boost the economy, the government began encouraging state-run banks to increase their mortgage lending to homebuyers. After a run-up in prices in big cities, investors looked to smaller markets for bargains.

Recent government efforts to douse the fervour in big cities had a similar effect. When Hefei, Anhui's capital, started restricting purchases last year, buyers rushed elsewhere, including to Wuhu. Li Guochang, head of a property-research institute in Anhui, estimates that people from outside Wuhu account for more than a quarter of purchases this year, up from the normal level of about a tenth. There are now roughly 20% more homes owned in Wuhu than there are households in the city, he says. As he puts it: "This doesn't seem very healthy."

Nevertheless, it is too easy to treat the rally in third-tier cities as froth. Owner-occupiers make up a majority of the market. ▶▶

Also in this section

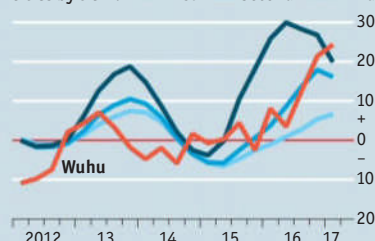
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Wuhu!

China, prices of newly built houses
% change on a year earlier

Cities by tier*: — First — Second — Third



Sources: Wind Info;
CREIS; The Economist

* Government definition based
on population, political rank
and other factors

► Many are locals who have the means to move to nicer homes, tired of the shabby six-floor walk-ups that still dominate many old city-centres. As for speculators, they might just know a thing or two. It has been striking that the price surge in third-tier cities has not been evenly spread around China, but rather concentrated in markets that have better locations. Places that fall within the gravitational pull of the most prosperous cities, particularly in the east and south, have fared the best. But thanks to better infrastructure links, there are many more locations that can be defined as good. Wuhu used to be a backwater. Today it is less than three hours from Shanghai by high-speed rail. In the north and west of China, well away from its glittering coast, housing prices are about the same as they were five years ago.

Homeward bound

A cascade of development has also changed the economies of mid-sized cities. As land prices and wages have risen along the coast, companies have moved inland. Wuhu, for example, now boasts numerous robotics firms. Population flows are changing, too. Anhui is one of the main sources of the migrants who staff factories and work on construction sites around the country. But its permanent population has risen by 1.7m since 2014, buoyed by the return of some of its migrant workers.

Similar reversals are also occurring in two other big out-migration provinces: Sichuan in the south-west and Hunan, Anhui's neighbour. Some migrants are returning because of old age—the government restricts their access to health care and other benefits in places other than where they were born (to control prices, some cities have recently limited their ability to buy homes, too). Others are lured by an improvement in job opportunities. A teacher at a vocational college in Wuhu says most of his students now stay put.

The central government wants to promote this trend: it believes it will help it achieve its goal of curbing the growth of the biggest cities. Shanghai's population has nearly doubled since 1990, to 24m. Between now and 2040, the city is aiming for a maximum of 1m more residents. Smaller cities, meanwhile, are being encouraged to attract outsiders. Some, such as Wuhu, offer special grants to university graduates who choose to live in them.

China's campaign to control city sizes may end up causing economic harm, placing artificial limits on the most productive urban centres. It is also deeply unfair to migrants from the countryside who have toiled for years in big cities but who have little hope of settling down permanently in them (see next story). But Wuhu and its third-tier brethren are not complaining: the restrictions, loathed by so many, are helping to give them life. ■

Urban development

Hollowed-out hutong

BEIJING

The wider meaning of change in the capital's alleyways

SALARY ALLEY runs from the National Art Gallery to Dongsì North Street in downtown Beijing. It is one of the city's surviving *hutong* (alleyways) from the pre-Communist period—a lane of single-story houses, grey brick walls and upturned eaves. It is also a microcosm of changes ripping through China's cities.

Salary Alley is poor. Large houses have been subdivided into warrens. Few have kitchens or bathrooms, so the lane is lined with public bathrooms and restaurants which are cheaper than eating at home. The *hutong* boasts ten eateries, four public bathrooms, nine grocery or hardware shops, a pet hospital, brothel, barbershop, four-star hotel, pool hall and a community-police headquarters. Jane Jacobs, an American urban theorist who extolled the varied life of mixed-use streets, would have loved it.

About five years ago, Salary Alley started to gentrify. It already had one of the best Vietnamese restaurants in Beijing. Now it acquired a luxury sushi house, a couple of bars, and—sure harbinger of middle-class demand—a dainty coffee-shop. But recently it has suffered something more like de-gentrification. Gentrification means protecting old buildings and attracting new businesses, often at the expense of old residents who can no longer afford to live there. Salary Alley is seeing new businesses shut down, buildings torn up and new arrivals, not old residents, forced out.

The process began last summer when

government-hired builders tore off shop fronts (windows, signs, even roofs), plastered over the gaps and went home, leaving the lane looking as if it was being demolished, rather than renewed. Since then, in the name of returning the *hutong* to its pre-Communist appearance, windows have been bricked up, glass doors replaced, commercial signs removed and houses refaced with old-style “bricks”—actually tiles made to look like them. Fake bricks are commonly used in Chinese renovations (see picture of a painted-on kind in a recent makeover in Shanghai). A flea market close to Salary Alley was shut and the stallholders—mostly migrants from the central province of Hunan—sent home.

Three of the alley's restaurants have also been closed. All of the shopkeepers say business has suffered. The street entrance to one corner store has been bricked up; customers must climb three steps to place their order at a high window. If you want a cold drink, the owner gives you a photograph of the inside of the fridge so you can see what he has.

The government says it wants to correct architectural violations, brick up entrances that do not comply with building codes and buy back land so it can be renovated and sold. Those motivations sound reasonable. But they are not the real ones.

One of the government's motives is to squeeze out migrants, a brutal tactic in its campaign to control the capital's size. On Salary Alley, most shopkeepers are from the coastal province of Shandong. Like the market traders from Hunan, they are vulnerable. “If the government lets us do business, we will do business,” says one fatalistically. “If not, we will return home.”

The government says it needs to repair the alleyways, many of which are indeed dilapidated. Yet on Salary Alley, most of the buildings being “protected” were rebuilt after 1980, while the few ancient ones are mouldering away. Building fake brick walls hardly counts as beautification. “I like variety,” says a shop owner. “For the government uniformity is beautiful.”

This year the city's government says it will wall up or tear down 16,000 unlicensed shops and extensions. Not only are these illegal but also dangerous, it argues. Yet a microbrewery near Salary Alley was shut despite being up to date with all its paperwork—because it was in the way of another piece of city-mandated reconstruction. A local bar owner complains that his establishment passed inspections for years—until one day everything was mysteriously declared to be illegal. He is shuttering it.

China's capital says it wants to be a global city. That will require allowing its street life to flourish as it does in New York or London. The government seems to have decided that greater control is needed. Salary Alley is suffering the chill. ■



A cheap way to keep out the riff-raff

Banyan | Gliding towards the congress

The way to a crucial Communist Party gathering is not so smooth for Xi Jinping



IN A set piece of imperial pomp, power and benevolence for which the Chinese capital seems designed, the leaders of more than two dozen countries, plus envoys from fourscore more, gathered in Beijing last weekend—in awe of Xi Jinping. At his much ballyhooed “Belt and Road Forum”, the Chinese leader laid out what was intended to look like a new global economic order: Chinese-led investment in railways, roads, bridges, ports and other infrastructure that would transform 60-odd countries to China’s south, west (along the old Silk Road) and as far away as Africa. No immodesty was spared as Mr Xi promised Chinese guidance and more than \$100bn of Chinese money to create what he called a “big family of harmonious coexistence”.

Strength, poise, harmony: China’s leaders set great store by the display of such virtues. If Mr Xi were a bird, he would be a swan. But though the waters of Chinese politics on which Mr Xi glides look smooth, in reality they are dark and troubled.

Swan’s tale

Every now and then come hints of furious paddling beneath the surface. The belt-and-road initiative is a case in point. It was devised by Mr Xi partly as a desperate attempt to find a solution to the crippling overcapacity that exists at home among state-owned infrastructure and other firms. But he appears uncertain what exactly the vast and amorphous scheme should involve, or how to persuade foreigners to sign up to it (thin attendance by European leaders was noted at the gathering). Many of its projects look financially dubious.

For the rest of the year Mr Xi is likely to be distracted by his biggest priority: putting his stamp on a five-yearly party congress, the 19th since the Communist Party’s founding in 1921, which is expected to be held late in the year. Mr Xi came to power in 2012, yet the current Central Committee, comprising about 350 members of the country’s political elite, is not of his own making. It was chosen (as convention dictates) by his predecessors.

Foreigners who have spent time with the Chinese leader suggest he has an almost messianic desire to save his party. Mr Xi, whose late father was a comrade of Mao Zedong’s, nourishes a nostalgic sense of the 1950s being a golden era, when the party was supposedly driven by zeal, purity and purpose (never mind

the murderous violence that killed millions). Today he sees its pervasive cynicism, self-interest and corruption as threats not only to the country’s economic transformation, but to the survival of the party itself. Hence his unprecedented campaign to tighten discipline, which has felled over 100 senior leaders and tens of thousands of lesser ones. Since Mr Xi cannot conceive of any other body running the country, to save the party is to save China.

Mr Xi’s chance, in the coming months of fierce if (to outsiders) invisible horse-trading, is to stuff the Central Committee with allies. At the congress, five of the seven members of the Politburo’s Standing Committee—the elite’s inner sanctum—are expected to retire. This will give Mr Xi an opportunity to install his own successors. And the event will allow him to burnish his image—there is speculation that delegates might honour him by calling his musings “Xi Jinping Thought” (making him the first named leader since Mao to have thought with a capital T). The congress may also offer hints about whether Mr Xi intends to break the unwritten rule that Politburo members retire at 68 (he is currently 63) and stay on beyond 2022, when he would be expected to retire as general secretary were he to stick to the usual ten-year term. As it is, conventional wisdom holds that within a supposedly “collective” leadership Mr Xi’s power greatly surpasses that of his two immediate predecessors, Hu Jintao and Jiang Zemin, and approaches that of Deng Xiaoping or even of Mao.

Yet the way Mr Xi is wielding his power suggests that he still sees huge challenges to it. Take his swingeing crackdown on lawyers who defend dissidents and the like. They argue for little more than that China should live up to international civil-rights agreements it has signed and to the protections promised in its own constitution. But the trials of some have ended in verdicts of subverting state power and heavy sentences. This month one prominent lawyer, Xie Yang, was released on bail in the central city of Changsha, but only after retracting accusations of being tortured by police. The retraction looks odd, and Mr Xie remains under heavy surveillance. Mr Xi is taking no chances.

Elsewhere are clues that the anti-corruption campaign is getting fiercer, and perhaps even more personal. In January Xiao Jianhua, a billionaire businessman with links to the political elite, including, it is thought, to Mr Xi’s family, was kidnapped from his hotel in Hong Kong—presumably by mainland agents. He was spirited out of the territory to an unknown fate.

The Chinese authorities are also waging a bitter campaign against another billionaire, Guo Wengui, who, from self-imposed exile, has been making lurid accusations of corruption at the top of the party. Mr Guo may be no angel—one former state-security chief has confessed to making wire taps, freezing assets and intimidating journalists on Mr Guo’s behalf, to help bring down rivals. But whatever the facts of this murky saga, the implication is of collusion between dodgy businessmen and venal officials—state power put to the service, perhaps on a massive scale, of private gain. A lot is at stake for many potential targets of Mr Xi’s anti-corruption drive. Some may be pushing back by encouraging Mr Guo to point fingers at people close to Mr Xi.

It all contributes to a febrile mood—as do rumours of Jiang Zemin’s poor health (retired leaders cast a long shadow; their deaths can shift political balances). Mr Xi is likely to succeed in promoting his protégés. But he may not feel secure enough to do what many observers believe he would like: to rip up the party’s unwritten rules and keep himself in power indefinitely. Breaking the norms of collective leadership may be beyond him. ■



Making government work

When nudge comes to shove

Policymakers around the world are embracing behavioural science

IN 2013 thousands of school pupils in England received a letter from a student named Ben at the University of Bristol. The recipients had just gained good marks in their GCSEs, exams normally taken at age 16. But they attended schools where few pupils progressed to university at age 18, and those that did were likely to go to their nearest one. That suggested the schools were poor at nurturing aspiration. In his letter Ben explained that employers cared about the reputation of the university a job applicant has attended. He pointed out that top universities can be a cheaper option for poorer pupils, because they give more financial aid. He added that he had not known these facts at the recipient's age.

The letters had the effect that was hoped for. A study published in March found that after leaving school, the students who received both Ben's letter and another, similar one some months later were more likely to be at a prestigious university than those who received just one of the letters, and more likely again than those who received none. For each extra student in a better university, the initiative cost just £45 (\$58), much less than universities' own attempts to broaden their intake. And the approach was less heavy-handed than imposing quotas for poorer pupils, an option previous governments had consid-

ered. The education department is considering rolling out the scheme.

The trial was run by the Behavioural Insights Team (BIT), a company spun out of the British government in 2014 and which remains in part publicly owned. BIT has pioneered the use of psychology to help policymakers change behaviour through "nudges" rather than taxes or laws. That approach is spreading, as governments from Australia to Qatar, and bodies such as the UN and World Bank, follow.

Mind over matter

When BIT was set up, in 2010, the very idea provoked objections. Some critics feared that nudges would do little good, and that their effects would fade over time. Others warned that governments were straying perilously close to mass manipulation. More recently, some of the findings on which the behavioural sciences rest have been questioned, as researchers in many fields have sought to replicate famous results, and failed.

By and large those doubts have been allayed. Even if specific results turn out to be mistaken, an experimental, iterative, data-driven approach to policymaking is gaining ground in many places, not just in dedicated units, but throughout government.

Nudging is hardly new. "In Genesis, Sa-

tan nudged, and Eve did too," writes Cass Sunstein of Harvard University. From the middle of the 20th century psychologists such as Stanley Milgram and Philip Zimbardo showed how sensitive humans are to social pressure. Daniel Kahneman and Amos Tversky described the mental shortcuts and biases that influence decision-making. Dale Carnegie and Robert Cialdini wrote popular books on persuasion. Firms, especially in technology, retail and advertising, used behavioural science to shape brand perception and customer behaviour—and, ultimately, to sell more stuff.

But governments' use of psychological insights to achieve policy goals was occasional and unsystematic. According to David Halpern, the boss of BIT, as far as policymakers were concerned, psychology was "the sickly sibling to economics". That began to change after Mr Sunstein and Richard Thaler, an economist, published "Nudge", in 2008. The book attacked the assumption of rational decision-making inherent in most economic models and showed how "choice architecture", or context, could be changed to "nudge" people to make better choices.

In 2009 Barack Obama appointed Mr Sunstein as head of the White House's Office of Information and Regulatory Affairs. The following year Mr Thaler advised Britain's government when it established BIT, which quickly became known as the "nudge unit". If BIT did not save the government at least ten times its running cost (£500,000 a year), it was to be shut down after two years.

Not only did BIT stay open, saving about 20 times its running cost, but it marked the start of a global trend. Now many governments are turning to nudges ►►

▶ to save money and do better. In 2014 the White House opened the Social and Behavioural Sciences Team. A report that year by Mark Whitehead of Aberystwyth University counted 51 countries in which “centrally directed policy initiatives” were influenced by behavioural sciences. Non-profit organisations such as Ideas42, set up in 2008 at Harvard University, help run dozens of nudge-style trials and programmes around the world. In 2015 the World Bank set up a group that is now applying behavioural sciences in 52 poor countries. The UN is turning to nudging to help hit the “sustainable development goals”, a list of targets it has set for 2030.

Not all these schemes involve a dedicated nudge unit. Many draw on initiatives that predate BIT. But all use similar insights from behavioural psychology to design and test policy tweaks. These are summed up in EAST, a mnemonic devised by BIT: in order to change behaviour, make good choices easy, attractive, social and timely.

Heading EAST

One of the best-known nudges is to set the desired outcome as the default. For example, enrolling all workers in a company pension scheme, and requiring them to opt out if they do not wish to be members, greatly increases savings rates compared with when non-membership is the default. The power of making things easy was also demonstrated by a trial in 2012, in which the forms used by poor Americans to apply to university were pre-filled with data from tax returns. That raised the likelihood that they would go to university by a quarter. Nudges that involve making the desired choice more attractive, or at least more obvious, range from making the wording on letters about late payment of taxes more emphatic to placing healthy food at eye level in canteens.

Among the most effective nudges are “social” ones: those that communicate norms or draw on people’s networks. A scheme tested in Guatemala with help from the World Bank and BIT tweaked the wording of letters sent to people and firms who had failed to submit tax returns the previous year. The letters that framed non-payment as an active choice, or noted that paying up is more common than evasion, cut the number of non-payers in the following year and increased the average sum paid. And a trial involving diabetes shows that it matters to nudge at the right moment. In 2014 Hamad Medical Corporation, a health-care provider in Qatar, raised take-up rates for diabetes screening by offering it during Ramadan. That meant most Qataris were fasting, so the need to do so before the test imposed no extra burden.

Owain Service, BIT’s managing director, says it was initially accused of “tinkering at the margins”. But nudging is now being brought to bear on bigger, harder,

problems. One is making public bodies more representative of those they serve. American police forces have long struggled to recruit from ethnic minorities; many worry that their failure to do so harms community relations and makes it tougher for officers to do their job. Many attempts have been made to improve matters, without much success. But BIT’s North America team helped the police force in Chattanooga, Tennessee, to test various versions of job ads. Those emphasising the challenge of the job or the career benefits attracted many more black and Hispanic applicants than those emphasising the impact of the work on the community or the opportunity to serve.

Of particular interest in aid and development are recent efforts to use nudges to tackle corruption. The World Bank has been involved in several trials, for example one in Nigeria to improve record-keeping in health clinics, thereby making it less likely that money will be stolen. It has found that giving health workers who keep good records certificates that they can display in their clinics makes a worthwhile difference. Another promising area involves motivating people to refuse bribes. Anti-corruption policies generally rely on punishment. But behavioural insights suggest harnessing social norms, for example by publicly celebrating those who stay clean.

Far from being fleeting, as had been feared, at least some nudges have been shown to form lasting habits. Todd Rogers of Harvard University found that asking prospective voters just once to note down exactly when they were going to vote not only increased turnout in an imminent election, but also in subsequent ones. The Guatemalans who received the letters that worked best to encourage taxpaying the

following year turned out to be more likely to pay up the year after, too.

Technology is increasing the impact of behavioural techniques. Several British departments employ data scientists who can run speedy trials of letters and leaflets, much as media companies learn what works online by “A/B testing” content, serving one version to half their audience and another to the rest to see which one is more viewed, liked and shared.

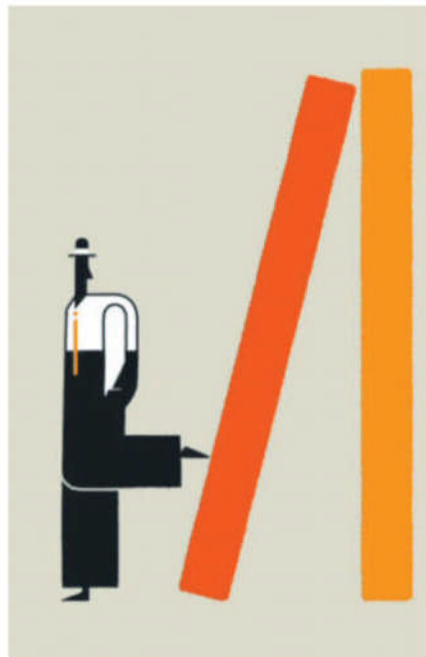
Brain gain

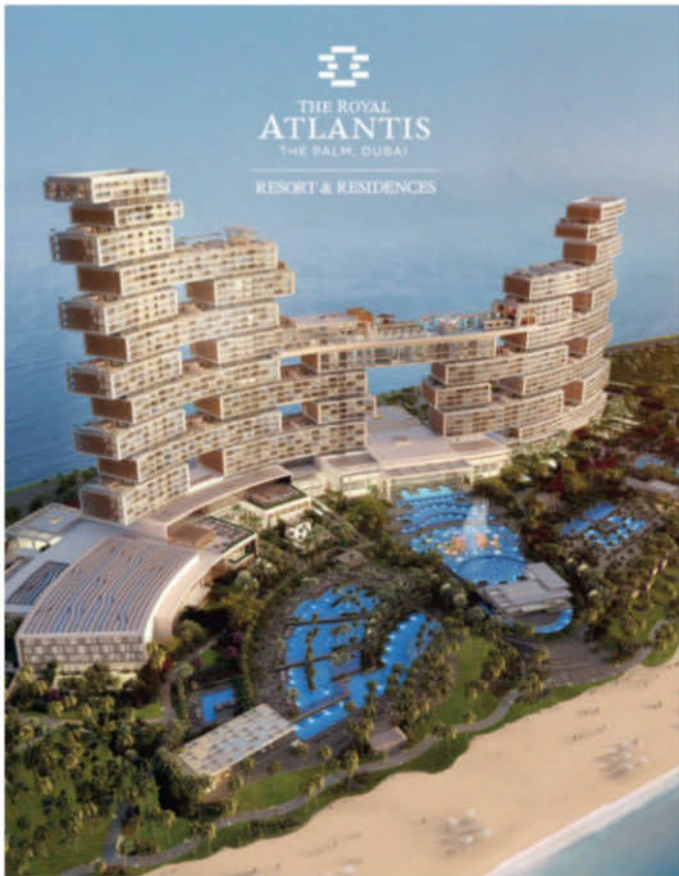
Many of the early critics of nudge techniques regarded them as infantilising, or even a type of government mind control. “Nanny is alive and well in Westminster” ran the headline of a newspaper article about the nudge unit in 2011; the author went on to deride the unit’s “Orwellian overtones”. Many worried about the idea of bureaucrats being given free rein to shape behaviour by imperceptibly tweaking government communications and environmental cues.

Even the proponents acknowledge the risks. “Hitler nudged, so did Stalin,” writes Mr Sunstein. Laws in some American states that have suppressed black people’s votes, such as those passed by North Carolina in 2013, look remarkably like nefarious nudges, from limiting the types of IDs that can be used for registration to banning out-of-precinct voting. All made voting less easy, attractive, social and timely—and disproportionately cut the number of black people voting.

North Carolina’s laws were struck down on appeal last year, in a nice demonstration of the need for checks and balances when it comes to nudging, as with all other policy action. And all governments nudge whether they have a dedicated unit for doing it, Mr Sunstein points out, and whether or not they mean to. There is no purely neutral way of presenting choices, so why not try to choose the one that results in the best outcomes? As long as that choice is made in a transparent manner, and is subject to democratically elected politicians, nudging offers policymakers an alternative to both the nanny state and the unintelligent one; a middle way that he describes as “libertarian paternalism”.

A “replication crisis”, in which scientists in many fields have repeated published experiments and failed to find the same results, has hit particularly hard in the behavioural sciences, with some much-cited findings now open to question. But the approach taken by nudge units and their kind already incorporates the remedy. It has nudged policymakers towards a new way of thinking about policy that involves trial and error, and step-by-step improvement. The theories of behavioural science can only suggest which nudges to try; it is for policymakers to find out which ones work. ■





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Consumer products

Is Coke it?

ATLANTA

Coca-Cola's new boss wants to move beyond its core product

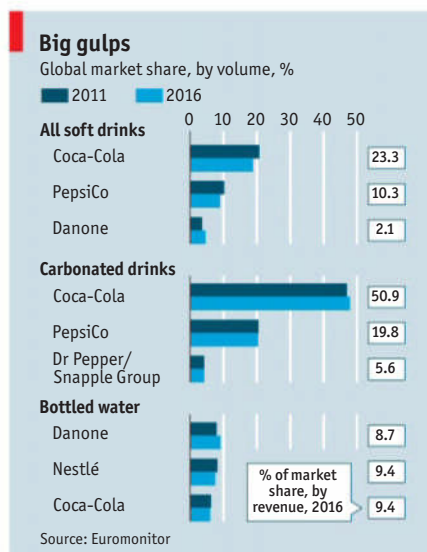
FEW companies are as defined by a single product as Coca-Cola. The firm has sold the sweet dark soda since 1886. At its headquarters in Atlanta, archives house the advertisements that sowed Coke in the world's consciousness: posters urging consumers to "Have a Coke and a Smile"; Norman Rockwell's 1935 painting of a boy fishing, Coke bottle in hand; a Coca-Cola record with tunes sung by Ray Charles, Aretha Franklin and The Who; advertisements with a red-coated, bearded Santa Claus—it was Coca-Cola that popularised the image of Santa in the 20th century.

Today Coca-Cola has \$42bn in revenue and is available "within an arm's reach of desire", as the firm puts it, in every country but Cuba and North Korea. Its distribution is so broad, its marketing so expert that the Gates Foundation has urged vaccine campaigns to mimic its strategy. The question for James Quincey, an insider who took over as CEO this month, is whether Coca-Cola can move beyond Coke.

The company is under pressure. A growing number of governments see its main product as not an icon but a scourge, and have introduced soda taxes. Coca-Cola must adapt as shoppers switch to buying more online. Meanwhile, investors want its 24% profit margin to expand. Jorge Paulo Lemann, the founder of 3G, a private-equity firm that is stalking the consumer-goods industry, has quipped that he could run Coca-Cola with 200 staff.

Efficiency measures are already being taken, including a plan, expanded last month, to save \$3.8bn by 2019. Selling off Coke's vast network of bottlers—together, Coca-Cola and its many bottlers amount to the world's biggest consumer company—could mean revenue plunging by more than \$7bn this year. The idea is that the firm will become more agile and profitable as a result.

But the most important and risky shift is Coca-Cola's effort to diversify. "The company has outgrown its core brand," Mr



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Quincey said in February. Until 1955 the company sold only Coca-Cola, either in soda fountains or in small bottles. Its soda strategy thereafter might be summarised as Coca-Cola squared: the company sold more, bigger containers of Coca-Cola and other fizzy products like it, such as Sprite and Fanta. The greater the volume of soda that bottlers sold, the more money they made. Managers within Coca-Cola were rewarded for boosting volumes, too. The result is impressive. Last year Coca-Cola accounted for about half of all soda drunk around the world, according to Euromonitor, a research firm.

However, in many countries the market for fizzy drinks looks increasingly flat. In America the consumption of soda per person peaked in the late 1990s, at nearly 53 gallons per person, and has since declined to about 75% of that level. Last year volumes of Diet Coke, once seen as a fix for more health-conscious consumers, dropped by 4.3%, according to Beverage Digest, as shoppers grew wary of artificial sweeteners. Volumes of bottled water in America exceeded those of carbonated soft drinks for the first time in 2016. Soda-makers must deal with restless governments. France, Norway and the American cities of Philadelphia and Berkeley are among those with taxes on sweet drinks. Britain will introduce its own tax next year.

Muhtar Kent, the CEO who preceded Mr Quincey, began to address these problems. The company is reducing sugar in some sodas, though not in original Coca-Cola. It has also invested in other types of drinks. For instance Coca-Cola recently bought AdeS, a soy drink, from Unilever, an Anglo-Dutch conglomerate. It is also developing products internally, such as Gold Peak iced tea, whose annual sales now exceed \$1bn.

Mr Quincey wants to speed the growth ▶▶

of such new offerings, as well as to bolster the firm's existing products. "The direction of travel is clear," he says. "If we are truly doing our jobs, we will have a broader portfolio." In his prior roles Mr Quincey expanded its range of products, for example through the acquisitions of Innocent, a British maker of "smoothie" fruit drinks, and Jugos del Valle, a Mexican juice company. Nevertheless, soda still accounts for 70% of Coca-Cola's volume. That is down from nearly 90% in 2000 but still an extremely high share. PepsiCo, Coca-Cola's chief rival, has long had a more diversified portfolio of drinks and snacks.

A business unit called Venturing & Emerging Brands, or VEB, is trying to find other promising new drinks. In a VEB conference room in Atlanta, shelves are stacked with bottles touting everything from fermented drinks and coconut water to hemp iced tea and an "aloe vera drink with pulp". Most are not Coca-Cola brands, but the company is keeping a close eye on them. "There is a tremendous amount of innovation and entry into our market," says Mr Quincey.

VEB acts as a sort of venture-capital firm and incubator. Sometimes it takes a stake in an external venture-capital firm, which enables Coca-Cola to make indirect investments in young brands. In other instances the unit backs a company directly and then helps it in areas such as sourcing and distribution. For example, in 2015 it invested in Suja Life, a maker of "cold-pressured" juice—and increasingly Suja's "Master Cleanse" is, for better or worse, within an arm's reach of desire. VEB is now due to expand to Asia.

There are risks. Marketing has been Coca-Cola's strength and whether that magic will keep its old oomph when sprinkled across dozens of brands remains to be seen. Traditional soda is usually more profitable than alternatives, says Ali Dibadj of Sanford C. Bernstein, a research firm, largely because healthier brands' ingredients cost more. Bottled water has seen greater growth than any other drink, but it has particularly slim margins. Coca-Cola insists that it can broaden its portfolio, profitably, by focusing on premium drinks: for instance the company's "smartwater" brand is enriched with electrolytes.

As for the firm's traditional products, Coca-Cola is seeking higher volumes in young markets and higher profits in old ones. To propel growth in India, for example, it has developed a new bottle to keep its soda fizzy despite long and bumpy journeys. And in developed markets, where volumes are stable at best, Coca-Cola is making bubbly drinks more profitable through a mixture of higher prices and smaller packages.

From investors' point of view, the firm's strategy is strongly reminiscent of the way in which Big Tobacco has coped with the

stigmatisation of its unhealthy legacy product. To be sure, even Coca-Cola's most sugary drinks are like leafy kale compared with cigarettes. Yet like tobacco firms investing in e-cigarettes and lifting the cost of packs to consumers, Coca-Cola is diversifying into healthier beverages and raising prices for its traditional drinks. The resemblance to tobacco, says Mr Dibadj, is what makes the firm such a compelling investment right now—though not one that the company's new boss or its legions of accomplished marketers are likely to tout. ■

Airline security

Carry on working

Airlines seem to have dodged a wider ban on electronic devices

THE fear that business travellers on transatlantic flights might have to stop working on spreadsheets and read a good book instead had been palpable. In recent weeks, agents at America's Department of Homeland Security had been hinting to the media that a ban on large electronic devices in the cabins of flights between Europe and America was likely. After a meeting on May 17th in Brussels, between American and EU officials, however, reports suggest that threat has been averted. Airlines will be rejoicing if so.

America had been expected to announce that all electronic gadgets larger than a smartphone, such as tablets and lap-

tops, would henceforth have to be put in hold luggage. The Trump administration (along with Britain) had already imposed similar restrictions on flights from some Middle Eastern countries in March. It seemed security officials had got wind of a specific terrorist threat, possibly involving Islamic State (IS), and perhaps similar to an attack perpetrated on a Somalian jet in 2016. Then, a terrorist blew a hole in the side of an airliner using a small bomb concealed in a laptop placed against the cabin wall. (The terrorist got his timing wrong, detonated too early, and was sucked to his doom; no one else was seriously hurt.)

The reason for the apparent change of mind was unclear as *The Economist* went to press. Airlines had complained that alternative security options, such as enhanced screening of passengers and their carry-on luggage, had not been fully explored. They also warned of the dangers of storing more lithium batteries in the hold. Such batteries, which are used in most electronic devices, have on occasion combusted and brought down commercial aircraft, including a UPS cargo plane in 2010. A controversy over whether Donald Trump gave classified information about the risk of IS using laptops against aircraft to Russia's foreign minister, Sergei Lavrov, last week, may also have had an impact on the debate, and helped airlines to avoid a wider ban for now.

They have good reason to worry about the possibility. The transatlantic market is hugely important on both sides of the pond. Around 31m people flew from Europe to America last year, reckons IATA, an airline industry group. Business travellers, who rely on staying productive while in the air, would have been the most reluctant to fly laptop-free. In any case, executives are often forbidden to put company computers in the hold for fear of theft or loss of sensitive information. Business- and first-class seats account for only 13% of transatlantic passengers but provide half the revenue. Following the ban in the Middle East, Emirates, a Dubai-based carrier, cut flights to America by a fifth (flyers were also put off by a strong dollar and worries about potential immigration difficulties).

If executives could not work on planes, it might cost the industries they work for around \$655m in lost productivity, calculates IATA, based on an assumption that half of business-class passengers will lose five hours' working time per flight. Research from Oxford Economics, a forecasting outfit, found that in Britain a 1% increase in business travel is associated with a £400m (\$518m) boost to trade. John Kelly, America's homeland-security secretary, had suggestions for business executives and families on how to cope with a laptop ban: read a book or magazine or, heaven forbid, talk to the kids. Such tactics may not now be needed. ■



Windows seat



BHP

From Broken Hill to break up

The “Big Australian” is under pressure to slim down

THE hills from which Broken Hill in New South Wales got their name no longer exist. They have been mined away since, 134 years ago, a sheep herder discovered what would become one of the world’s biggest silver mines. BHP, the world’s largest miner, whose name dates back to when it was called the Broken Hill Proprietary, is also under the pickaxe, wielded by feisty activists. This week its boss, Andrew Mackenzie, conceded that he is reconsidering its foray into American shale oil. Even in business meetings these days, he needs a hard hat.

On May 16th, shortly before he took to the stage at a prominent mining-industry shindig in Barcelona, Elliott, the activist fund in question, lobbied its second clod in less than two months. In a statement it accused the company of a “do-nothing” response to its previous missive demanding a full-scale overhaul of the group. Mischievously, it played on BHP’s “Think Big” rebranding effort launched a day earlier, challenging management to “Think Big” about its proposal.

Aspects of Elliott’s campaign are, in fact, banal and not worth much thought at all. It wants BHP to increase share buy-backs, which offer no boost to long-term growth prospects. It also cherry-picks time periods to give an exaggerated impression of how badly BHP’s shares have performed compared with its Anglo-Australian counterpart, Rio Tinto. Yet on two points, it has hit home: the company’s disastrous diversification into American shale oil; and its dual listing in London and Sydney.

On the first point, Mr Mackenzie has

given ground. In answer to a question in Barcelona, he said the shale business, which BHP bought for \$20bn in 2011, is not one where it intends further expansion. In fact, if there are any potential buyers for its assets, “we would be more than happy to talk turkey with them,” he said. Elliott is urging BHP to launch a review of its entire petroleum business in America, Australia and elsewhere. Eventually it wants them sold or spun off.

But Elliott has also softened. Partly in response to an angry reaction from the Australian government, it dropped its recommendation that BHP incorporate in London as part of efforts to simplify its dual-listing structure. It would now accept a sole Australian domicile. BHP thinks that is tricky, but analysts reckon it should give the matter more thought.

Ultimately, BHP’s greatest vulnerability has come from grafting a subpar oil business onto one of the world’s most successful mining firms. It argues that the combination helps smooth out the boom-bust cycle, because oil and metals should behave differently. Evidence from the recent slump suggests they have suffered more or less equally, though.

Another firm’s experience suggests separation may be better than combination. South32, a firm created from the demerger of some of BHP’s unfashionable mining assets in 2015, has gone from strength to strength. But shrinkage was not what Mr Mackenzie had in mind when launching the “Think Big” ad campaign. Not for nothing has *The Australian*, a newspaper, referred to the testy standoff as “the Elliott in the room”.

Apple in China

App wars

SHANGHAI

Tencent takes on Apple in China

IN MOST of the world, the success of Apple’s “walled garden” of proprietary software has two elements. First, its attractive services: users tend to be addicted to its iTunes music shop and iBooks store. Second, the complexities involved in switching from an iPhone to another device without losing music files or having to re-download apps.

Neither factor works as well in China. There, many of Apple’s services have not taken off. The American giant missed the boat on music sales in the country, reckons Matthew Brennan of China Channel, a technology consultancy. Its sales of books are blocked by the government.

In addition, few would disagree that its messaging service is a flop and that Apple Pay, its mobile-payment offering, is irrelevant—its market share on the mainland is only 1%. A “genius” employee at an Apple store in Shanghai admits sheepishly that “iCloud doesn’t work very well in China.”

And switching is a doddle in China, observes Ben Thompson of Stratechery, an industry newsletter. Nearly everyone uses WeChat, an app made by Tencent, one of China’s three big internet giants, for everything from social media to payments. Through WeChat it is easy to transfer photos, messages, contacts and payments history maintained on that app from one device to another.

No wonder that Apple’s retention rate among iPhone users, which tops 80% in America and Britain, is only 50% in China. That does not bode well for a key market. Apple’s revenues in greater China have nearly doubled since 2013, to \$48.5bn in 2016, thanks in part to its mainland app store. App Annie, a research firm, reckons it is the world’s biggest Apple app store, as measured by revenue. But Apple’s results for the first quarter of the year showed total sales falling by some 14% in greater China compared with a year ago, the fifth consecutive quarter of decline. Canalys, a market-research firm, estimates that shipments of iPhones on the mainland plunged by a quarter in the first quarter.

Hostilities have now broken out with Tencent. The two had co-existed happily: since richer Chinese prefer iPhones to Android phones, these devices are where WeChat made much of its money. But earlier this year, WeChat launched “mini-programmes,” a form of lightweight app that operates independently of Apple’s app store and robs it of revenues. ▶▶

Apple, meanwhile, had disliked but tolerated WeChat's practice of allowing users to reward generators of content (for example, opinion columns) with small tips. These bypass Apple's own payments mechanism. On April 19th Apple obliged WeChat to shut down tipping.

Another front in the fighting is that the American firm's mainland app store accepts Alipay, a payment service from China's Alibaba, but not WeChat's payment offering. Broadly, WeChat is going from being a social-media platform (akin to Facebook and WhatsApp rolled into one) to becoming a mobile-operating system, putting it on a collision course with Apple. "There is a war going on," says Mr Brennan.

Who will win such a clash of titans? Rumours are swirling among tech experts about what might happen next. Apple is trying to fortify its position. It is investing heavily in its large network of stores and research labs on the mainland; and it plans to include China in the first wave of countries in which its highly anticipated new iPhone will be launched later this year. But Apple is on the defensive, whereas Tencent is firmly on the attack.

Mr Brennan speculates that Tencent might even launch a WeChat phone, which would make Tencent's offering completely independent of the iPhone. Anywhere else in the world, it would be foolish to go up against the Californian giant. In China, though, the native firm may have the advantage. As Connie Chan of Andreessen Horowitz, an investment fund in Silicon Valley, puts it: "Loyalty is much, much stronger to WeChat than to Apple in China." ■

Veolia

The survivor

PARIS

Antoine Frérot has overhauled France's water-and-waste champion

WALK along Sugar Road in Aubervilliers, north-east of Paris, and it is obvious how a formerly scruffy area is gentrifying. New office blocks, a shopping mall and bistros have appeared in recent years, filling spaces left after wrecking balls flattened warehouses. Along a canal previously used by barges, commuter ferries deliver workers from richer parts of the city. A district long known for slums, cheap housing and support for the Communist Party is becoming a business hub—Chanel, a fashion firm, as well as several film producers and studios, have moved in and big banks are expected next.

The district's centrepiece is a U-shaped glass block, the headquarters of Veolia, the

Corporate lobbying

Doorway to profit

NEW YORK

When bosses visit the White House, their companies make more money

DONALD TRUMP will not follow his predecessor's policy of releasing visitor logs for the White House. A working paper from the National Bureau of Economic Research by Jeffrey Brown and Jiekun Huang, both of the University of Illinois at Urbana-Champaign, shows what a loss that is.

They study records from Barack Obama's administration that identify 2,286 meetings between senior executives of firms in the S&P 1500 and White House officials over a seven-year period to December 2015. The most frequent visitors were the heads of Honeywell, a conglomerate (30 trips); General Electric, another conglomerate (22); and Xerox, an office-equipment firm (21).

The study shows that a visit to the White House boosts company performance. The shares of firms whose executives secure such meetings tend to outperform those of industry peers: by 0.33% and 0.78% ten and 60 trading days, respectively, after the meetings. The more senior the host, the more pronounced the

ensuing share-price outperformance: meetings with the president yield the biggest "positive abnormal returns".

The authors suggest several reasons for this, though they stop short of proving causation. In the very short run, investors cheer news of the meetings, especially those that are widely reported and photographed. Their hopes that good will follow from the meetings are often vindicated. Compared with others in the same industry, firms with political access win more government procurement contracts. This generates on average an extra \$34m in profits in the 12 months after an initial meeting.

They may also benefit from more regulatory relief. The authors point to reporting in the *Wall Street Journal* from 2015 that Google executives' frequent visits to the White House under Mr Obama may have factored in a decision by the Federal Trade Commission to drop its antitrust investigation into the internet giant. Whatever the explanation, it pays to spend time at the seat of power.

world's largest water-and-waste group. The building opened in January, after the firm moved out of central Paris to save costs and concentrate 2,000 of its 163,000 staff in one spot. Moving to a rehabilitated area carries symbolism for Veolia, which is experiencing its own recovery after years of gloom.

"In the past seven years we have transformed," says Antoine Frérot, CEO since 2009. Change was sorely needed. Veolia (previously called Vivendi Environnement) had been lumbered with excessive debt under Jean-Marie Messier, a flamboyant former media mogul; its value collapsed after the financial crisis of 2008-09. Mr Frérot has overseen a painful recovery plan based on cutting costs (staff numbers have fallen by half), and slashing dangerously high debt by 50%, to €8bn (\$8.9bn). He has also survived two coup attempts—one, in 2012, orchestrated by Henri Proglio, Mr Messier's successor as CEO, and another, in 2014, by Groupe Dassault, a maker of fighter jets, and then the second-biggest shareholder.

Mr Frérot has lessened Veolia's traditional over-reliance on doing business with municipalities, especially in France, and sought out more contracts from industry. Industrial clients, which provided a modest one-fifth of revenues when he took over, will soon be as valuable as the government kind, he says. Much new

growth in Europe is likely to come from contracts in handling "difficult" industrial waste, ranging from dismantling retired oil rigs, trains and planes to the storage and processing of asbestos, pharmaceutical by-products or carbon dioxide. Another opportunity lies in contracts to take apart nuclear-power stations, notably in Germany, and eventually in France (where ageing plants are scheduled to begin closing in the 2020s), and to manage spent nuclear waste once the plants have shut. ►►



Bin there, done that

▶ Veolia's changing focus has coincided with a loosening of ties to the French state, which last year cut its holding in the firm almost by half, to 4.6%. The sale stirred no controversy and the country's new and centrist president, Emmanuel Macron, could next opt for full privatisation. Mr Frérot would prefer to keep some state involvement. He calls it a badge of honour that helps his firm to win contracts abroad.

Those foreign contracts have helped Veolia most of all. Its results for the first quarter confirmed that the French market is of diminishing importance: the domestic market today accounts for only one-fifth of Veolia's business, down from two-fifths in 2010. Revenue growth in the rest of Europe was a more buoyant 7%; beyond Europe it reached 12%.

Distant prospects will continue to entice. Environmental laws in Europe and America are already fairly strict: that limits the room for growth there. But the desire of authorities in emerging markets to take action against pollution has the potential to create new markets. A new law last year in China, for example, restricting release of waste water from factories, should lift demand for Veolia's services.

Mr Frérot hopes to stay at Veolia beyond his current term, which ends in 2018. He admits that his firm still faces headwinds, such as the possibility that some European municipalities may return water services to public control. But his reputation as someone who can clear up a corporate mess is well established. ■

Music formats

Vinyl gets its groove back

Soaring demand means tussles over record-pressing machines

FOR young hipsters and middle-aged sentimentalists alike, the resurgence of vinyl is cause for celebration. Since 2010 sales of vinyl records in America have tripled. Britain's vinyl industry saw its biggest gains for 25 years in 2016. Big supermarkets are extending the amount of space that they allocate to the discs and even the turntables that twirl them have found a place on Amazon's best-seller lists.

Meeting this demand has been tricky. Vinyl accounted for 76% of total album sales in 1973; by 1994 this had dropped to 1.5% as compact discs (CDs) took over. By then the bulk of the world's vinyl-pressing plants had closed and most of their cumbersome machines had gone to the scrapyard. Only a very few plants that could diversify into new areas of printing and production stayed open. But they did so



Well under 45

without any further investment in vinyl, so the few machines that kept on producing often date back to the 1960s.

GZ Media, a Czech firm that is the biggest manufacturer of vinyl (it makes around 60% of all vinyl records), went from churning out over 13m records in 1987 to a low of 200,000 in 1993. Requests for vinyl began flooding in again about a decade ago; it is now working around the clock and will produce 24m vinyl discs in 2017.

Although vinyl is still only a tiny fraction of the global music market, big orders from record labels have swamped the few pressing plants left and caused delays in production. GZ Media has kept on top of orders by building, from 2014 on, updated versions of its older pressing machines. Others are also ramping up. More than a dozen new pressing plants have cropped up across North America, Europe and beyond in the past couple of years.

A chronic shortage of machines is the chief headache. Reports of people racing across the world to get their hands on an old machine have become common. That in turn is spurring investment in new options. Nordso Records, based in Copenhagen's Nordhaven district, which opened its plant last year, opted for a new pressing-machine design from Newbilt, a German startup. Newbilt have sold 25 of their products across Europe for up to €500,000 (\$554,000) each, including all parts. They are manual, so an operator needs to oversee each stage of the process; they churn out 400 records a day if operating flat out.

On a more industrial scale, Vinyl Technologies is a Canadian startup that started building new machines in 2015. One eight-hour shift presses 1,200 records. Plants across North America, Europe and Asia have already installed them.

Startups, which also provide machine servicing, see further room for innovation in the mastering process, or the transferral

of the recording to a master disc from which all subsequent copies will be derived. One method involves cutting the grooves onto a lacquer disc, but only two companies in the world manufacture these discs (one of them is run by an old Japanese couple in Tokyo) and they too are in short supply. A second technique uses a copper-plated disc that is easier to come by but is again hampered by the limited number of machines that can cut the disc: of the 25 that still exist, GZ Media owns four.

Last year, Rebeat Digital, an Austrian company, filed a patent for a "high-definition vinyl" mastering technology. This produces a computer-generated image of the music before blasting it onto a lacquer master disc with a laser (rather than a spinning stylus). They reckon this slashes the time needed to produce the master disc by 60%. But audiophiles are still sceptical about the sound quality of vinyl records produced in this way.

Even if vinyl's fashionability fades a bit, servicing the remaining few machines and supplying parts should keep the cash flowing for the startups. And the format is unlikely to disappear entirely, as once seemed possible. Many fans buy the liquorice-black discs from Spotify, a music-streaming service, after it started in 2014 allowing artists to sell merchandise, including vinyl, from their profile pages. Another promising sign that there are more hipsters than ageing purists involved is that about half of all those who buy an album on vinyl have listened to it before, online. ■

Toshiba's chip blues

Blue-chip chip blues

An embattled giant tries to sell a crown jewel

ONCE an electronics and nuclear-power empire that was the pride of corporate Japan, Toshiba is threatened with a stockmarket delisting. It missed a deadline to file its annual results, on May 15th, for the third time this year. In earnings estimates (auditors are refusing to sign off on its results), it warned of a loss close to ¥1trn (\$9bn) for the financial year that ended in March. That is the steepest loss on record for a Japanese manufacturer.

To make things worse, Western Digital, an American joint-venture partner in its semiconductor unit, last week took legal action to block Toshiba's plan to shed their flash-memory business. The case could drag on, but Toshiba needs a sale. That would help cover a write-down of billions of dollars from Westinghouse Electric, its bankrupt American nuclear-power unit. ▶▶

▶ The group's chip business accounted for almost one-fifth of revenue in the nine months to December 2016; together, Toshiba and SanDisk, a subsidiary of Western Digital, which jointly operate plants in Japan, come second only to Samsung Electronics of South Korea, the world's biggest maker of NAND chips (see chart). These chips are used in everything from smartphones and video-game consoles to data centres. The broader business is sizzling: semiconductors are expected to bring in \$386bn in worldwide revenue this year, up by 12% from 2016, says Gartner, a market-research firm. Though Toshiba has not said how much of the newly formed spin-off of its memory business it wants to sell, it hopes to gain at least ¥2trn from the sale: a vital injection of cash, since it is blocked from raising money on the stockmarket after a huge accounting bungle in 2015.

Now it is pushing ahead with a second round of bids (the first ended in March). Its boss said this week that Western Digital's charge, that Toshiba was violating its agreement, was "groundless". Ten bidders are said to have entered the fray for the NAND unit, including chipmakers, tech firms and private-equity firms. Foxconn of Taiwan, a smartphone assembler, has reportedly considered offering \$27bn. SK Hynix of South Korea and Broadcom of America, both chipmakers, are also in the running.

The Asian bidders may need to contend with an outbreak of economic nationalism in Tokyo. To lose the NAND technology, invented by Toshiba in the 1980s, would be a blow, and the administration of Shinzo Abe, the prime minister, is reportedly loth to see another corporate jewel handed to an Asian competitor. Last year, the Innovation Network Corporation of Japan (INCJ), a government-backed fund, tried and failed to buy Sharp, an electronics giant: Foxconn bought it instead.

The INCJ is expected to enter the second round of bids in partnership with KKR, an American private-equity firm. The government has said it will scrutinise offers by foreign firms for reasons of national security. Some reports suggest it has offered to the

INCJ a guarantee of up to ¥900bn on the bank loans that it would need. Still, the government would prefer not to use muscle, says Nicholas Benes of the Board Director Training Institute of Japan, since his reform plans involve the country being open to most foreign investors.

Pressure to strike a deal with Western Digital and make the sale will mount. In-

vestors are worrying about more financial fudges being uncovered at the group, says Daiju Aoki of UBS. The firm has been on the watch list of the Tokyo Stock Exchange for 20 months: that is one step short of a delisting, which will happen automatically if it ends the financial year, in March 2018, still with negative shareholder equity in its accounts. A date to commit to memory. ■

Indian cinema

Routine update

MUMBAI

Shuffle off, Bollywood: it's time for Tollywood and Kollywood

ALL you need for a movie is a girl, a gun, a lot of singing, melodrama and never-ending dance sequences. Or so a big chunk of the Indian audience believes. But Bollywood, the cosmopolitan Hindi-language film hub that is the spiritual home of the song-and-dance routine, has been bested by an upstart rival. "Baahubali 2: The Conclusion", a fantasy epic shot mainly in two southern Indian languages, has smashed the country's box-office records. Once in Bollywood's shadow, the likes of Kollywood and Tollywood are coming into their own.

India puts out around 1,500-2,000 films a year, according to industry estimates, more than anywhere else in the world. Hindi fare of the sort Bollywood cranks out from Mumbai makes up less than a fifth of that, but accounts for 43% of national box-office takings, which are worth around \$2bn. That leaves a long tail of regional films, which must split around \$1bn across 1,000-plus releases shot in 20 different languages. With an average take of well below \$1m, few emerge from obscurity.

"Baahubali 2" certainly has. A "Lord of the Rings"-style adventure heavy on computer graphics and bulging muscles (the title-character's name translates as "the one with strong arms"), it is the first Indian film to break through the 10bn rupee (\$156m) mark for worldwide box-office takings. That is a respectable performance even by international standards. It is now in its fourth week in the top ten biggest grossers in America.

Such numbers are not typical of either Kollywood (the Tamil-language industry in Tamil Nadu, which is based in a neighbourhood of Chennai called Kodambakkam) or Tollywood (which makes Telugu films in nearby Telangana), which both claim "Baahubali 2" as their own. Provincial cinema is known for artier fare, where costs are low and returns steady.

Yet southern India is fertile territory for film-makers. Its 260m inhabitants are richer than the national average, and prefer content in regional languages to



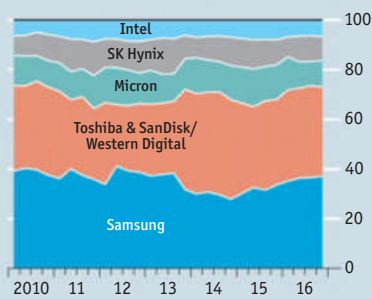
The one with strong ticket sales

Hindi, Bollywood's lingua franca. Ageing cinemas bulge to breaking-point: audiences turn into cheering spectators and drown out the dialogues. Living superstars have temples named after them; fans bathe huge garlanded cut-outs of actors with milk to pray for their film's success. Pre-screening rituals include burning camphor inside a sliced pumpkin before smashing it near the big screen to bring good luck. It is unsurprising that five of Tamil Nadu's eight chief ministers have been film stars or scriptwriters.

By contrast Bollywood is seen by many as being in a bit of a funk, having recycled the same handful of stars on one too many occasions. The past two years have seen many expensive flops. Because regional cinema has no actors with so much nationwide recognition, scriptwriters work harder to craft compelling stories—the best of which increasingly get remade in Hindi. "The two south Indian film industries will soon overtake Bollywood," says Shibashish Sarkar of Reliance Entertainment, a big non-Hindi producer. They already have a combined 36% at the box office. "Baahubali 3", anyone?

Chips with everything

NAND* flash-memory
Worldwide market share, by manufacturer, %



Source: Statista

*Found in memory cards, USB drives and solid-state drives

Schumpeter | Good chemistry

Dow Chemical shows that American industrial firms and globalisation can mix

WHAT does it take for an American industrial champion to succeed in an age of globalisation and impatient investors? Some observers argue that it has become impossible. The world is just too nasty and unfair, they bleat. Perhaps they should take a look at Dow Chemical, a firm born in Michigan in 1897 that has hustled hard enough to be at the top of its industry 120 years later.

When Dow completes its planned \$130bn merger with DuPont, a longtime rival, probably at the end of this year, it will become the largest chemical company in the world by sales. This new colossus will keep changing—in 2018-19 the plan is for it to split into three specialised firms. “New Dow” will focus on selling chemicals to the automotive, construction and packaging industries. The other two smaller companies will concentrate mainly on the agricultural and electronics industries.

This is a good moment, before the three-way split, to take stock. Being in the chemicals business is like swimming in a vat of sulphuric acid. Of the industry’s 20 largest firms in 1996 only four remain in the ranking today. Some were dissolved, such as ICI, a British company. There has been one spectacular bankruptcy in recent memory, with LyondellBasell defaulting on \$24bn of debt in 2009. It is unlikely to be the last.

The industry is brutal. Its customers have consolidated and boosted their bargaining power in the past 20 years. Consumer-goods and car firms, for example, have completed mergers worth \$16trn. The prices of its raw materials, oil and gas, gyrate. It is capital-intensive: a “cracker”, or petrochemical plant, costs \$2bn or more and takes years to build. And private firms must compete with state-owned ones from China and the Middle East, which have access to subsidised credit and raw materials.

That was the landscape when Dow’s boss, Andrew Liveris, took over in 2004. Since then the firm has made big mistakes. After the financial crisis, in 2009, it had to cut its dividend (for the first time in 97 years) after mismanaging its finances. But three initiatives have kept its underlying business competitive.

First, Dow has ruthlessly shuffled its portfolio, ditching less profitable businesses, including its century-old chlorine operation, and buying specialised ones that have barriers to entry. When it is formed, New Dow will have \$50bn of sales, and will have bought and sold businesses with \$40bn of sales since 2004.

Second, Dow has made an effort to think hard about custom-

ers as well as chemistry. It reorganised around categories of client, and boosted research and development (R&D) in order to conjure up new ways to help them. For the automotive industry, for example, Dow used to supply rubber and polystyrene. Now it sells carmakers expensive sound-absorbing foam. Each year 5,000 products are launched, double the number of a decade ago.

The third step was to invest heavily in plant to lower costs. Dow has sunk \$8bn into complexes in the Mexican Gulf coast that have access to cheap shale gas. And it has invested about \$4bn in a joint venture in Saudi Arabia with Aramco, the state oil firm, that can take advantage of Aramco’s access to low-cost oil.

Some of Dow’s shareholders have been just as intractable as its industry. In 2014 Third Point, an activist fund, attacked it, calling for it to break itself up. Dow gave it two board seats out of a total of 13. Since then, with Third Point holding a gun to its head, Dow has produced steady earnings and sped up its reinvention. Mr Liveris says he learned to have a “dual horizon”, with one eye on the one-to-two-year perspective of the stockmarket and the other on the longer time periods—a decade or more—that it takes for a cracker or R&D project to wash its face.

Stay paranoid

Investors can see the results of Dow’s struggle. Gross margins have risen. Return on capital is low, partly because it overspent on acquisitions. But as the Mexican Gulf and Saudi projects come on stream over the next two years, profits are expected to increase, notes Hassan Ahmed of Alembic Global, a research firm. After the merger with DuPont, Dow’s return should rise above 15%, putting it in the industry’s first quartile. Its shares have kept pace with the S&P 500 index in the past decade and are valued on a higher multiple of free cashflow than Alphabet, Google’s parent.

Dow also shows that success can be good for employees as well as shareholders. Staff turnover has been high: a third joined in the past five years. But the number of employees has risen by over a fifth since 1996, to 56,000, about half of them in America.

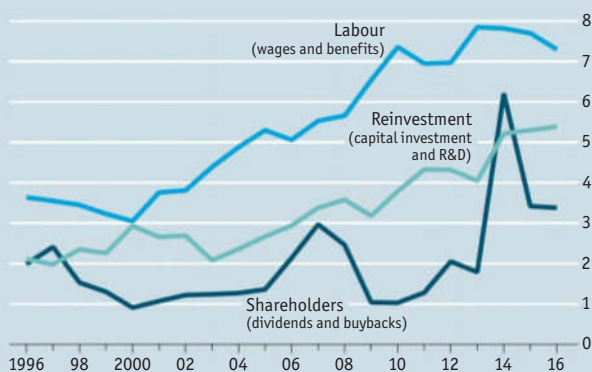
Another measure to look at is the “labour share”, or the proportion of the firm’s gross cashflow that is spent on wages, as opposed to reinvestment or giving shareholders dividends and buybacks. Across American business the share of cashflow that goes to labour has declined markedly. At Dow it has remained flat, at about 50% since 1996. In absolute terms its salary bill has soared (see chart).

If there is a grumble about the example that Dow sets, it is that consumers may lose from consolidation. Firms may be able to jack up prices. Still, this risk is biggest in agricultural chemicals, rather than the industrial ones that New Dow will specialise in. Antitrust regulators will probably allow the Dow-DuPont deal.

Chemical firms can never rest easy. Car sales are flagging in America, which could hurt demand. China’s two giants, ChemChina and Sinochem, may soon merge and could eventually threaten their more sophisticated Western rivals. The cycle is not dead: a spike in gas prices, relative to oil prices, could hurt Dow’s margins. But the chemical industry’s capital base has grown by only 1% a year for the past half-decade: firms are being disciplined about adding new capacity. And Western ones have learned to keep adapting. The lesson from Dow is that American industrial companies can prosper in a system of open borders and capital flows. It isn’t easy but it is possible. Mr Liveris leads President Trump’s advisory council on manufacturing. He should pass on the message. ■

Division of the spoils

Dow Chemical, spending, \$bn



Sources: Bloomberg; company reports



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OPEC policy

Know thy enemy

OPEC is fighting not just shale producers but the futures market—and losing

BORROWING three words from Mario Draghi, the central banker who helped save the euro zone, Khalid al-Falih, Saudi Arabia's energy minister, and his Russian counterpart, Alexander Novak, on May 15th promised to do "whatever it takes" to curb the glut in the global oil markets. Ahead of a May 25th meeting of OPEC, the oil producers' cartel, they promised to extend cuts agreed last year by nine months, to March 2018, pushing oil prices up sharply, to around \$50 a barrel. But to make the rally last, a more apt three-word phrase might be: "know thy enemy".

In two and a half years of flip-flopping over how to deal with tumbling oil prices, OPEC has been consistent in one respect. It has underestimated the ability of shale-oil producers in America—its nemesis in the sheikhs-versus-shale battle—to use more efficient financial techniques to weather the storm of lower prices. A lifeline for American producers has been their ability to use capital markets to raise money, and to use futures and options markets to hedge against perilously low prices by selling future production at prices set by these markets. Only recently has the cartel woken up to the effectiveness of this strategy. It is not clear that it has found the solution.

The most obvious challenge shale producers have posed to OPEC this decade is the use of hydraulic fracturing, or fracking, to drill oil quickly and cheaply in places

previously thought uneconomic. Once OPEC woke up to this in 2014, it started to flood the world with oil to drive high-cost competitors out of business (damaging its members' own fortunes to boot).

But it overlooked a more subtle change. Fracking is a more predictable business than the old wildcatter model of pouring money into holes in the ground, hoping a gusher will generate a huge pay-off. As John Saucer of Mobius Risk Group, an advisory firm, says, shale has made oil production more like a manufacturing business than a high-rolling commodity one.

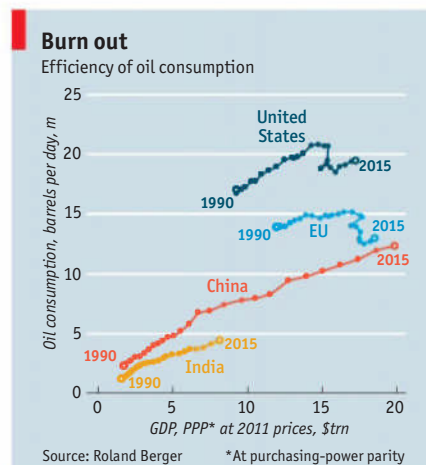
That has made it easier to secure financ-

ing to raise production, enabling producers to spend well in excess of their cashflows. Mr Saucer says the backers of the most efficient shale firms include private-equity and pension-fund investors who demand juicy but reliable returns. They are more likely to hedge production to protect those returns than to gamble on the "home run" of the oil price doubling to \$100 a barrel. "Their hedging is very systematic and transparent," he says. "They don't mess around with commodity speculation."

Data from America's Commodity Futures Trading Commission, a regulatory body, bear out the shift. They show that energy and other non-financial firms trade the equivalent of more than 1bn barrels-worth of futures contracts in West Texas Intermediate (WTI), more than double the level of five years ago and representing almost a quarter of the market compared with 16% in 2012. Many of these are hedges, though Mr Saucer says the data only reflect part of the total, excluding bilateral deals with big banks and energy merchants.

OPEC and non-OPEC producers unwittingly exacerbated the hedging activity by inflating output late last year even as they decided to cut production from January 1st. The conflicting policies helped depress the spot price relative to the price of WTI futures, preserving an upwardly sloping futures curve known as "contango". This made it more attractive for shale producers to sell forward their future production, enabling them to raise output.

That higher shale output will persist is borne out by a surge in the number of drilling rigs, which shows no signs of ebbing. The Energy Information Administration, an American government agency, reckons that by next year the United States will be producing 10m barrels of oil a day, above its recent high in April 2015. That would put ▶▶



▶ it on a par with Russia and Saudi Arabia. Shale producers will have gained market share at their expense.

In response, the frustrated interventionists appear now to have set out to put the futures curve into “backwardation”, in which short-term prices are higher than long-term ones. The aim is to discourage the stockpiling of crude, as well as the habit of hedging. But success is not guaranteed.

The International Energy Agency, a forecasting body, said this week that, even if the OPEC/non-OPEC cuts are formally extended on May 25th, more work would need to be done in the second half of this

year to cut inventories of crude to their five-year average, which is the stated goal of Messrs al-Falih and Novak. It also noted that Libya and Nigeria, two OPEC members not subject to the cuts because of difficult domestic circumstances, have sharply raised production recently, perhaps undercutting the efforts of their peers.

Moreover, global demand this year has been weaker than expected. In a report this week, Roland Berger, a consultancy, argued that rich-country oil demand has peaked, and that, as developing countries such as China and India industrialise, they will use oil more efficiently than did their de-

veloped-world counterparts (see chart on previous page). All this raises doubts about how far the oil price can climb.

Eventually, shale producers will have their comeuppance. Labour and equipment shortages will push up drilling costs. Higher interest rates will dampen investor enthusiasm. “Irrational exuberance” may lead them to produce so much that prices collapse. But for now, Saudi Arabia seems to be leading OPEC into a war it cannot win. As Pierre Lacaze, of LCMCommodities, a research firm, memorably puts it, it has taken “a knife to a gunfight”. Worse, it has wounded mostly itself. ■

Buttonwood | All quiet on the risky front

How investors trade volatility

HAN SOLO, a hero from the Star Wars movies, has a habit of saying, at tense moments, “I have a bad feeling about this.” Many commentators are echoing this sentiment after a recent fall in the Volatility Index, or Vix, below ten. Their fears deepened on May 17th, when the Vix lurched above 15 and American stockmarkets had their worst day in eight months. Incessant turmoil in the White House at last seemed to take its toll.

A low Vix reading is usually seen as a sign of investor complacency. The previous two occasions on which the index fell below ten were in 1993 and early 2007 (see chart). One preceded the bond market sell-off of 1994 and the other occurred just before the first stages of the credit crisis.

The value of the Vix relates to the cost of insuring against asset-price movements via the options market. An option gives the purchaser the right, but not the obligation, to buy (a call) or sell (a put) an asset at a given price before a given date. In return, like anyone buying insurance, the purchaser pays a premium.

The price of this premium is set by supply and demand, reflecting the views of the purchaser and the person who sells, or writes, the option. A number of factors determines its size. One is the relationship between the market price and the exercise price; if the market price is \$10, then the right to buy the asset at \$5 must cost at least \$5. Another is the length of the options contract; the longer the time period, the greater the chance that prices will move enough to make the option worth exercising and the higher the premium.

Volatility is also very important. If an asset is doubling and halving in price every other day, an option is much more likely to be exercised than if its price barely moves from one trading session to the next. No one knows what future volatility

will be. But if investors are keen to insure against rapid market movements, then premiums will rise. This “implied volatility” is the number captured by the Vix.

As Eric Lonergan of M&G, a fund-management group, points out, the biggest influence on implied volatility tends to be how markets have behaved in the recent past (“realised” volatility). If the markets have been very quiet, then investors will not be willing to pay to insure against market movements, and implied volatility will be low. And markets have been very subdued of late. In early May the S&P 500 moved less than 0.2% in ten out of 11 trading days, the least volatile period since 1927.

Some see volatility as an asset class to be traded in its own right. You can buy or sell the Vix in the futures market or via an exchange-traded fund, or through a “variance swap” with a bank, in which one counterparty gets paid realised and the other implied volatility. There are also a couple of quirks that traders try to exploit. The first is that more people want to protect themselves against a big crash than against a small dip in prices. So the implied volatility of extreme options (covering, say, a 10%

price fall) tends to be a lot higher than that of ones nearer the market price. Andrew Sheets of Morgan Stanley calls this a “risk premium” payable to option sellers who take the other side of the crash risk.

Another quirk is that the implied volatility tends to be higher than the realised volatility. So selling options tends to be profitable a lot of the time; you are selling fire insurance for \$10 a year when claims are only \$8. This sounds too good to be true and there is, of course, a catch. As the chart shows, volatility can suddenly spike; when it does, people exercise their options, leaving those who wrote them exposed to a big loss.

Has such a spike started? The temptation is to buy lots of options while the price is low. But this can be a frustrating strategy. Mr Sheets says that, when volatility was at such subdued levels in the past, it remained low for a further two or three months. Option buyers can lose a lot of money waiting for prices to rise.

Many are surprised that the stockmarket has been so quiet, given the tightening of monetary policy by the Federal Reserve, and the many political worries. Sushil Wadhvani, a fund manager, thinks that many investors were bearish before Donald Trump’s election in November and were caught out by the sudden rally in equities; they are reluctant to be wrong-footed again. They may also hope that, if the market wobbles, the Fed will help by not pushing up interest rates further.

Investors may also think that political worries come and go but the global economy and corporate profits are rebounding. If things do go wrong, and volatility continues to spike, somebody will be left with the bill. Unlike Mr Solo, traders cannot all escape in the Millennium Falcon.



Lloyds Banking Group

Horse sense

The state sells its last shares in Britain's largest retail bank

IN OCTOBER 2008, amid post-Lehman pandemonium, Britain's Treasury said it would pump £37bn (then \$64.4bn) into three big banks: £20bn into the stricken Royal Bank of Scotland (RBS); the rest into Lloyds TSB and HBOS, a sickly rival that ministers had cajoled Lloyds into buying. After rights issues in 2009, in all the state paid £20.3bn for 43.4% of the merged Lloyds Banking Group. On May 17th Lloyds said the last state shares had been sold.

The government has recouped £21.2bn, including £400m-plus in dividends, since it started to unload its stake in 2013. The return may sound slim, but had big lenders imploded the costs of the financial crisis would surely have been far greater even than they were. (Not surprisingly, anyone holding Lloyds TSB or HBOS shares since before the crisis has made a heavy loss.)

The group is Britain's biggest retail bank. Its brands—Lloyds Bank, with its “black horse” logo, Halifax and Bank of Scotland—boast around one-fifth of both retail deposits and mortgages. Its share of small-business loans, where RBS leads the field, has climbed from 13% in 2010 to 19% last year. Under António Horta Osório, its chief executive since 2011, it has become slimmer and fitter. Some £200bn of bad loans, chiefly inherited from HBOS, have been run off. Wholesale funding, which in 2010 amounted to £298bn, 30% of liabilities, has been cut by nearly two-thirds.

Mr Horta Osório quit most foreign ventures—today 97% of Lloyds' business is in Britain—and others including St James's Place, a wealth manager. The European Union forced the sale of TSB, a brand acquired in the 1990s, as a condition of approving its state aid. It is not retreating everywhere: it expects the purchase of the British business of MBNA, a credit-card firm, from Bank of America to boost its share of that market from 15% to 26%.

To screw down costs Mr Horta Osório also stripped out three layers of management and placed budgets for travel, advertising and so forth under group-wide rather than divisional control. Like other banks, Lloyds is also closing branches. The workforce, 98,000-strong in 2011, will be down to around 70,000 this year (8,000 of the leavers went to TSB). Mortgage approvals and account opening have been made slicker. At 47.1%, the bank's cost-income ratio is well below the European average.

The stain of past sin has not yet been washed away: Lloyds has set aside £17.4bn,

Crowd-funding startups

Placing trades

An attempt to bring liquidity into a new market

EVERYONE would like a piece of the next Google or Facebook. But the big venture-capital (VC) firms do not usually raise money from small investors. And some entrepreneurs complain that it is hard to get noticed by the hotshots in the VC industry. Hence the enthusiasm for crowd-funding, where small investors can buy a stake in startup companies.

Seedrs, a British crowd-funding firm, was set up in 2012, and has backed 500 firms so far, raising a total of £210m (\$271m) from more than 200,000 users. But there are two big problems with crowd-funding. First, it is risky: most startups fail. Second, investments tend to be illiquid—shareholders have to wait for a takeover or a stockmarket flotation to recoup their investment.

Seedrs is trying to solve the illiquidity problem by setting up a secondary market, where buyers and sellers can exchange shares. The new market will start operating this summer, and will allow trading for a week every month, starting on the first Tuesday. The price at which investors can deal will be set by Seedrs itself, based on a valuation mechanism in line with industry guidelines. But there are some restrictions: only current investors in a firm will be allowed to buy shares. And, to the extent that investors make a profit on a sale, Seedrs takes a 7.5% cut of the gains.

Crowd-funding might be even more attractive if investors could at a click assemble a diversified portfolio of small stakes in 20-30 companies rather than just one—just as those who put money into peer-to-peer lending can spread their risk across a range of borrowers. The next challenge will be to build on early efforts to offer the same to investors in shares: ie, mutual funds for crowd-funded startups.



more than any other British bank, to compensate customers for mis-selling payment-protection insurance (PPI) with loans. Separately, in February six people, including a manager at an HBOS branch in Reading, in southern England, were jailed for a £245m fraud, predating the takeover, that ruined several small businesses. Lloyds has provided £100m for compensation and commissioned external reviews of how much it should pay, and how the mess was handled.

These costs will fade: Lloyds hopes to make no more PPI provisions and regulators have set a deadline for complaints of August 2019. But they have weighed on earnings. Lloyds returned 8.8% on tangible equity in the first quarter. Stripped of provisions for bad behaviour and restructuring, the figure was a sparkling 15.1%.

Analysts like what they see. The bet on Britain has worked so far. Interest margins in the first quarter were wider than expected. Lloyds' ratio of equity to risk-weighted assets, a key gauge of resilience, is a robust 14.3%, although the MBNA deal will dent

this a little. If Lloyds meets its earnings targets and other plans, estimates Jason Napier of UBS, a bank, its dividend yield could be a healthy 8.2% this year.

Compare Lloyds with the other, bigger, bank rescued that tempestuous autumn. All told the state injected £45bn into RBS. After nine years of losses it still owns 71.3%, with scant prospect of getting its money back. Despite recent improvement—notably, a profit in the first quarter—RBS still has many woes. It faces fines in America for mis-selling mortgage-backed securities before the crisis. It is yet to meet its state-aid obligations, for which the EU is considering a new plan. And it is being sued by shareholders claiming to have been misled before a rights issue in 2008: next month Fred Goodwin, the boss who led RBS to disaster, is due to appear in court. Lloyds, alas, is less than half the story. ■

Clarification: Our article last week on Quantopian referred to WorldQuant's WebSim platform. This differs from Quantopian's platform mainly in its employment model, not in the type or complexity of algorithms its members produce.

Investing in coins

Old money

NEW YORK

Coin-collecting goes mainstream

BEHIND the heavily fortified door of Stack's Bowers, a gallery of rare coins in New York, smiling salesmen show off their precious wares neatly displayed in pristine glass cabinets. To the untutored eye, it looks like pocket change. Numismatists, who study the history and art of old money, see well-preserved coins as aesthetic masterpieces worth many times their face value. At an auction organised by Stack's Bowers on March 31st, an American cent from 1793 (pictured) sold for \$940,000, becoming the costliest penny ever.

An index of tangible alternative asset classes compiled by Knight Frank, a consultancy, shows that returns on rare coins over ten years to the end of 2016 were 195%, easily beating art (139%), stamps (133%), furniture (-31%) and the S&P 500 index (58%). Coins are more portable than paintings or furniture, and boast a higher value-to-volume ratio. Stamps may be lighter, but, come doomsday, cannot be melted down.

The rare-coin market, however, has long had a reputational problem. What distinguishes a highly valuable coin—lustre, sharpness of detail, toning and friction-wear—is imperceptible to the untrained eye. So shady coin-dealers for decades successfully duped investors into paying top dollar for non-premium or even counterfeit coins.

The market's wild-west days ended in 1986 when the first independent coin certifier, the Professional Coin Grading Service (PCGS), based in California, established itself as an authority on authenticity and quality. Grading each coin on a one to 70 scale, PCGS gave the market transparency, boosting investor confidence and sales



A penny for your dreams

volumes. Today, global sales of rare coins are estimated at \$5bn-8bn a year, with 85% of the market in America. So important has third-party grading become that almost all rare coins sold at auction these days have been graded and sealed in stickered plastic by either PCGS or its main rival, Numismatic Guaranty Corporation (NGC), which is based in Florida.

Some blame the grading system itself for the eye-watering returns. Investors cling to the assigned grade: even a one-point boost can double or even triple a coin's retail price. An 1884 silver dollar from the San Francisco mint, for instance, sells for \$19,500 at the 62 grade but surges to \$65,000 at 63.

The grading process is subjective: the evaluation criteria include "eye appeal". Scott Travers, a coin dealer in New York, says investors sometimes resubmit the same coin ten or 20 times to the same company in hope of an upgrade. All this led to a steady "grade inflation", that has been cheered along by investors. But in the long term, a sustained rise by simple fiat in the number of high-grade coins will surely depress prices. Already, a new type of "grader of graders" has emerged, hoping to instil some discipline by rating the consistency of the two primary graders. Next: graders of graders of graders? ■

Crypto-currencies

New money

Bitcoin, its imitators and the risk of a crypto-bubble

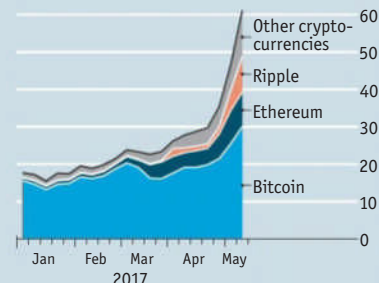
IT IS hard to predict when bubbles will pop, in particular when they are nested within each other. It helps to keep this image in mind when considering one of the biggest surges in asset values of recent years: the market value of all the world's crypto-currencies has trebled since the beginning of the year, and is now worth more than \$60bn (see chart).

Bitcoin is the best known of these currencies, especially after hackers this month instructed victims to pay ransoms in the anonymous digital cash in order to get their computer files decrypted (see Science and technology). Not that many bitcoins exist: there are about 16.3m of them, with only 1,800 new ones minted every day. But growing demand has pushed bitcoin's price to a record recent high of about \$1,830, up from \$450 a year ago.

Problems abide. Earlier this year some of the biggest exchanges, such as Bitfinex, experienced problems with their correspondent banks and were unable to pay out real-world currencies to account-hold-

Tales from the cryptos

Market value of crypto-currencies, \$bn



Source: CoinMarketCap

ers. To get their money out, they had to buy bitcoin and exchange them elsewhere. Yet the market is becoming more mature: institutional investors, from family offices to hedge funds, have become more comfortable with crypto-currencies, says Mike Komaransky of Cumberland Mining, which arranges over-the-counter trades. Other factors driving demand include fluctuations of China's yuan, the French elections and, in a small way, the ransomware attack (when *The Economist* went to press, only about \$80,000 had been sent to the bitcoin accounts held by the hackers).

Counter-intuitively, bitcoin's biggest weakness—the system's limited capacity—has also increased demand for crypto-currencies. Its developers have argued for years about how to expand the system, which can only handle seven transactions per second, compared with thousands on conventional payment services. Even before worries surfaced that the currency could split in two over the disagreement, bitcoin holders started to diversify into some of the many other crypto-currencies, or "alt.coins", to emerge in recent years. CoinMarketCap, a website, lists more than 800, from ArcticCoin, an obscure Russian currency, to zCoin, which boasts added privacy. The latest beneficiary is Ripple, which saw its market value explode from \$2bn early this month to over \$13bn. Ethereum, which issues "ether", has jumped from \$700m in January to \$8.6bn.

Ethereum's surge in turn helped inflate another bubble. Feeling richer, holders of ether started investing in what have come to be called initial coin offerings. Startups sell "tokens", sub-currencies of sorts, which exist on top of Ethereum. A total of 38 such ICOs have already been launched this year, raising more than \$150m, according to Smith+Crowne, a research firm. This has lured even more money into crypto-currencies. Some of the gains have found their way back into bitcoin and alt.coins. Trading between crypto-currencies has grown tenfold to \$2bn on average a day, says Erik Voorhees, the founder of ShapeShift, a crypto-to-crypto exchange.

The question is not if but when the mar- ►►

ket will turn. Even crypto-aficionados may run for the exits should bitcoin bifurcate or if one of the ICOs, which are completely unregulated, goes badly wrong—if issuers, for example, abscond with the money. Prices will also suffer should regulators start clamping down on such offerings.

On the other hand, although it is now easy to buy crypto-currencies for real cash, selling big amounts can be hard—as the woes of Bitfinex and others show. This makes sudden outflows unlikely. And the price surges have shown how the crypto-currency system is no longer just about bitcoin. Although it is still the biggest kid on the blockchain and functions, in effect, as a crypto-reserve currency, it now makes up under half the combined market capitalisation of all crypto-currencies. Come a crash, they may not all fall. ■

America's new trade representative

The negotiator

America's trade policy has a new front-man

AS IS well known, Donald Trump wants the press to focus not on what he calls “fake” news about himself, but on his administration's achievements. On May 12th he helpfully tweeted an example: “China just agreed that the US will be allowed to sell beef, and other major products, into China once again. This is REAL news!”

His first trade deal was real, if short of the “Herculean accomplishment” touted by his commerce secretary, Wilbur Ross. It promised American credit-rating agencies, payment companies and beef exporters new access to the Chinese market, and set a deadline for progress, of July 16th.

Parts of the deal lack detail, so it may yet disappoint. China has been offering since 2006 to open its market to American beef, but with hefty restrictions. The World Trade Organisation (WTO) had already ruled that China's restrictions on foreign payment-card companies broke its rules. And the Chinese incumbent is so entrenched that American cards may still struggle to compete.

Maybe Mr Trump picked the wrong “real” news. More important for his trade agenda was the Senate's confirmation on May 11th of Robert Lighthizer as the new United States Trade Representative (USTR). He will matter much more for economic relations with China than a hasty mini-deal. And now that he is in place, renegotiation of the North American Free-Trade Agreement (NAFTA) can begin.

Even those who disagree with Mr Lighthizer admit that he is clever and charming.

Accounting rules for insurers

Comparing like with like

A discordant industry aspires to some global harmony

LISTED firms in over 120 countries, including all large economies bar America, issue financial statements according to international financial reporting standards (IFRS) set by the International Accounting Standards Board (IASB). One industry, however, has been in practice free to keep using divergent national standards: insurance. That, too, is about to change. IFRS 17, issued on May 18th and coming into force in 2021, is the first standard for insurers to require consistent accounting across all countries using IASB rules (ie, again excluding America).

It has a wide gulf to bridge. In one example, looking at identical financial results reported under two countries' standards, revenue differed by a quarter and net income by nearly two-fifths. Some places, such as the EU, require insurers to use updated discount rates to value future cashflows. Others, including America and many parts of Asia, allow the use of historical discount rates and assumptions valid at the time the policy was issued (perhaps decades ago for some policies, such as life insurance).

The new standard imposes a consistent, global approach using current discount rates. Insurance companies will be comparable across countries; and multinational insurers will be forced to consolidate balance-sheets using the same approach throughout. The standard also requires profits to be smoothed out over time rather than accounted for at once, and clearly distinguishes between underwriting profits and investment returns.

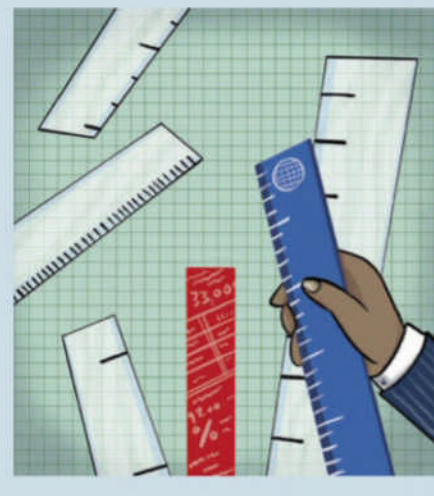
He has experience of bilateral trade negotiations from his time as Ronald Reagan's deputy USTR. And, unusually within this administration, he knows how to work with other departments and Congress. “Everybody in the Washington trade bar wanted him confirmed because they wanted competence,” says Alan Wolff, of the National Foreign Trade Council, a business lobby.

For those alarmed by Mr Trump's protectionist bent, Mr Lighthizer's competence is scant comfort. His is the forensic version of Mr Trump's economic nationalism, which sees China as a mercantilist military threat, enabled by America's free-trade policies. His deep knowledge of the WTO, which codifies America's trade relationship with China, means he knows the organisation's weaknesses. He can see, for example, that it is poorly equipped to deal

Optimists hope that, since investors will be better able to assess insurers, the new rules might lower their cost of capital.

But implementation is daunting. Several large insurers reckon that the costs will run into the hundreds of millions of dollars. Tom Stoddard of Aviva, a British insurer, is sceptical that any windfall for his firm or its shareholders will be as big as advertised. He fears the costs may well outweigh the benefits.

Francesco Nagari of Deloitte, an accounting firm, points out that most iterations of IFRS for other industries have involved gradual reform, whereas IFRS 17 attempts an ambitious one-time “jump” on a scale not seen before. The change is certainly expected to be enormous. And who knows what surprises might lurk on insurers' revised balance-sheets?



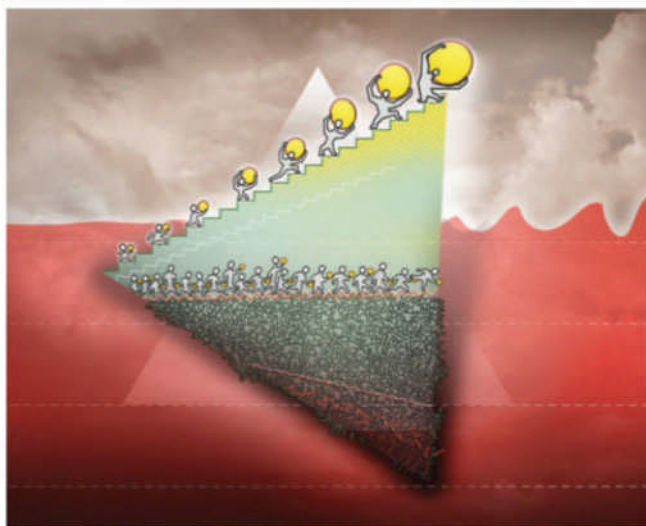
with China's state-infused economy, which breeds industrial overcapacity.

Mr Lighthizer combines an encyclopedic knowledge of global trade rules with a willingness to flout them if they do not serve America's interests. In 2010 he wrote that “an unthinking, simplistic and slavish dedication to the mantra of ‘WTO-consistency’... makes very little sense.”

At least he seems more interested in bending the existing rules to suit America than in blowing the whole system up. His success will depend on how others respond. He may need to reassure the many in the WTO suspicious of him, remembering for example a speech he gave in 2001, in which, admitting he had no evidence, he suggested that jurors on WTO panels might be “crooked”. But like his boss, Mr Lighthizer may be less interested in mending fences than in building walls. ■

Free exchange | A political economy

A new anthology of essays reconsiders Thomas Piketty's masterwork



“A MODERN Marx” was how *The Economist* described Thomas Piketty three years ago, when he was well on his way to selling more than 2m copies of “*Capital in the Twenty-First Century*”. It was meant as a compliment, mostly: as advice to take the analysis seriously, yet to treat the policy recommendations with caution. The book’s striking warning, of the creeping dominance of the very wealthy, looks as relevant as ever: as Donald Trump’s heirs mind his business empire, he works to repeal inheritance tax. But “*Capital*” changed the agenda of academic economics far less than it seemed it might. A new volume of essays reflecting on Mr Piketty’s book, published this month, prods economists to do better. It is not clear they can.

“*After Piketty: The Agenda for Economics and Inequality*”, edited by Heather Boushey, Bradford DeLong and Marshall Steinbaum, is a book by economists, for economists. In that it resembles “*Capital*” itself. Before he was an unlikely cultural icon, Mr Piketty was a respected empirical economist. He was best known as one of a group of scholars, among them Emmanuel Saez and Anthony Atkinson, who used tax data to track long-run inequality. In “*Capital*” these data became the basis for an ambitious theory of capitalism. Mr Piketty argued that wealth naturally accumulates and concentrates, so that familial riches are ever more critical to determining an individual’s success or failure in life. The extravagant inequality of the Gilded Age could return if no preventive action is taken.

Mr Piketty chose to compress his sweeping narrative into a compact economic model backed up by a few simple equations. The mathematical expression at the heart of his book is little more complicated than an emoji: $r > g$. It says that the rate of return on capital, r , has historically been greater than g , the growth rate of the economy. Why does this matter? It means, first, that the ratio of an economy’s wealth to its output tends to rise, which increases the relative economic power of wealth in society. Second, because the distribution of wealth is usually less equal than the distribution of income, faster growth in wealth than in GDP means a steady increase in inequality. Third, it implies that income from capital will grow as a share of income (and income from labour will fall). So being born rich (or marrying well) becomes a surer route to success than working hard or starting a

firm. It is a recipe for social stagnation, and perhaps crisis.

Yet, despite its 700-odd pages, “*Capital*” gave important details short shrift. “*After Piketty*” takes these lacunae in turn, pointing out, essay by essay, how Mr Piketty might have devoted more space to the role of human capital and technological change, the structure of the firm and the rise in outsourcing, sexual inequality, geography and so on. Gareth Jones, for example, argues that in “*Capital*” geographical divisions are treated as “container[s] for data”—that is, the areas within which various statistical agencies do their work—rather than as arenas with changeable boundaries within which the rough-and-tumble tussle between labour and capital plays out.

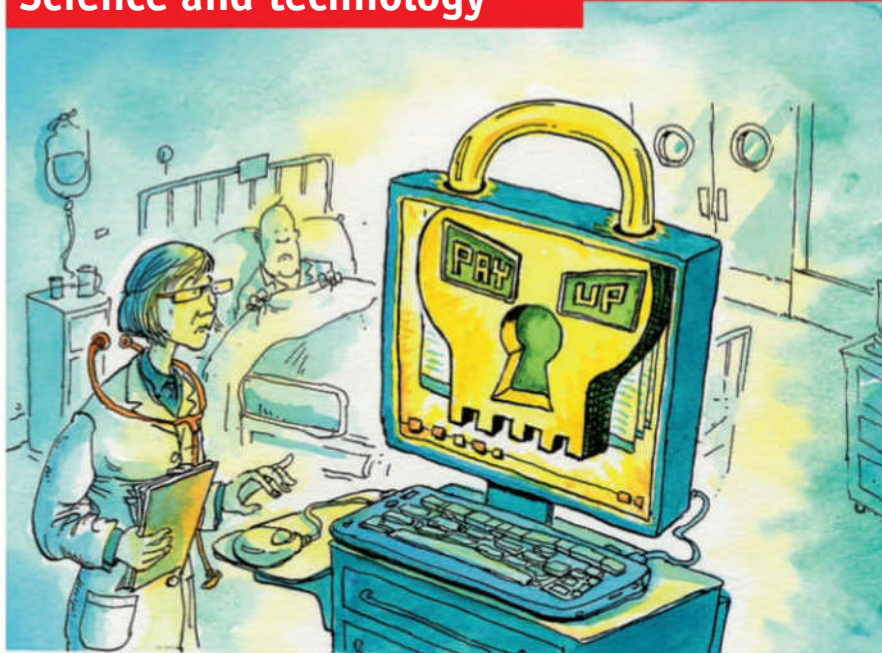
Most economists have focused on Mr Piketty’s model. They question the parameters needed to make it behave as Mr Piketty reckoned it would. “*After Piketty*” includes an example of the genre, by Devesh Raval. As wealth accumulates, economists reckon on the return on capital should fall; society has less use for the hundredth factory or server than the first. As it does, capitalists will seek new, profitable ways to deploy their wealth: by investing in machines that can replace labour, for instance. If firms are relatively good at using their growing piles of capital to replace labour—if, in the language of economics, the elasticity of substitution of capital for labour is greater than one—then wealth can pile up, as Mr Piketty suggests. If, instead, the return falls a lot as markets struggle to put capital into action, then r will decline towards g , and the ratio of wealth to GDP will eventually stabilise. Mr Raval echoes many other economists in pointing out that most estimates of the elasticity of substitution find it to be less than one.

In economics, this passes for a damning critique. Yet the argument treats the elasticity of substitution as a meaningful parameter in a well-behaved economy. It may not be. In the most incisive essay in “*After Piketty*”, Suresh Naidu describes a “domesticated Piketty” who communicates in the language of economics and whose argument hinges on things like the elasticity of substitution. Yet in “*Capital*” there is also a “wild Piketty” who pays attention to social norms, political institutions and the exercise of raw power. He suggests that $r > g$ is not a theory to be disproved but a historical fact to be explained. And he suggests that the wealthy use their influence to shape laws and society in order to guarantee themselves a better return on their wealth.

Do they? The record of the past 40 years is suggestive. Top tax rates have fallen, financial regulation has weakened (at least before the crisis of 2007-08) and companies have found it easier to reduce their obligations to workers. Economists often praise such moves as enhancing efficiency. Yet, somewhat awkwardly, this history is also consistent with a story in which the wealthy seek to protect their returns at the expense of labour. A focus on efficiency is unobjectionable in a world in which political and institutional stability can be taken for granted, much less so in a world in which it cannot.

What is to be done?

Politics is “everywhere and nowhere” in Mr Piketty’s book, as Elisabeth Jacobs notes in her essay. What “*After Piketty*” reveals is the message lurking within all the undeveloped arguments in “*Capital*” about politics and ideology. It is that economists set themselves too easy, too useless a task if they can describe how capitalism works only when politics is unchanging. ■



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Cyber-crime

Electronic bandits

Malware attacks are not new. But the spread of WannaCry might tip the balance towards treating them seriously

IN 1933 Britain's parliament was considering the Banditry bill—the government's response to a crime wave. The problem was that criminals were using a new-fangled invention, the motor car, to carry out robberies faster than the police could respond. The bill's proposed answer to these "smash-and-grab" raids was to create new powers to search cars and to construct road blocks.

In the end, the Banditry bill was not enacted. Its powers were too controversial. But the problem did not go away; what the bill proposed was eventually permitted, and now seems normal. Since then, the technology of theft has not stood still. Indeed, just as in the 1930s, it remains one step ahead of the authorities.

On May 12th, for instance, security companies noticed that a piece of malicious software known as WannaCry was spreading across the internet, first in Britain and Spain, and then around the world. It would reach 230,000 computers in 48 hours, an unprecedented scale of infection according to Europol, Europe's international police agency. WannaCry rendered useless some of the computers that help run Britain's National Health Service (NHS), causing ambulances to be diverted and shutting down non-emergency services. It also nabbed machines at Telefónica, Spain's biggest telecommunications company; at Hainan, a Chinese airline; and

even in Russia's interior ministry.

Malicious software ("malware", for short) is designed to infect and damage computers. Sometimes, especially if the creators are youngsters flexing their programming muscles, it is written for the sheer hell of it. Sometimes, it is the work of governments, designed to harm the interests of rivals or enemies. Usually, though, it is written for profit. This seems to have been the case for WannaCry, the modus operandi of which is to encrypt a victim's files and demand payment to reverse that encryption—a common technique, known as ransomware. What makes the WannaCry attack special is its scale and the high-profile nature of its victims. That public profile has led to the asking of questions similar to those which resulted in the Banditry bill.

Bugging out

WannaCry is a combination of two kinds of malware. One, known as a worm, is designed to spread from computer to computer. The other, delivered by the worm, is the encrypting ransomware itself. It is this combination that has made WannaCry so threatening. Ransomware is usually delivered one user at a time, via spoof e-mails which tempt the recipient to click on a link or attachment that then downloads and activates the software. In this case, a single click was able to infect an entire network.

The outbreak was terminated not by official action but by vigilantism. The malware had its head lopped off by a security consultant who goes by the pseudonym "MalwareTech"—for not everyone in the complex ecosystem of computer hacking is a bad guy. MalwareTech discovered that every time a copy of WannaCry runs, it pings out onto the internet a request for a response from a non-existent web address. This behaviour is intended to check that the copy in question is truly out in the wild, and is not being examined in a "sandbox", a closed piece of software in which security researchers can dissect digital bugs to learn their secrets.

Sandboxes simulate access to the entire internet, to persuade the malware under examination to run at full capacity and reveal its secrets. That means responding to all pings in the way a real responder would. So, if a ping returns from the non-existent address, the program can deduce it is in a sandbox, shut itself down, and thus retain its secrets. MalwareTech worked out the web address in question, registered and activated it, and thus convinced every copy of WannaCry that it was in a sandbox and so should shut up shop.

All credit, then, to MalwareTech. But the simplicity of stifling WannaCry suggests the whole thing was a bit of a botched job—as does the apparent business model of its creators. Professional ransomware operations come with fully operational call centres in which real people answer calls from distressed owners of infected machines in order to walk them through the process of getting their files back (and paying the ransom, of course).

WannaCry has none of these. It simply asked for payment, into a particular account, of a sum in bitcoin, an electronic currency. Moreover, Check Point, a com- ▶▶

puter-security consultancy in Israel, has shown that WannaCry's encryption software is so badly assembled that decrypting a user's data after payment has been made is practically impossible. Properly organised ransomware criminals, alive to the advantages of repeat business, usually do unencrypt the hostage data once the money has been paid.

"This is not a serious organised crime

gang," Ross Anderson, professor of computer security at Cambridge University, says of the entity behind WannaCry. "It's some kid in a basement in São Paulo or Bucharest or Aberystwyth. If he has any sense, he will smash his hard drive and burn the shards in a bonfire, and never cash in the bitcoin he's been sent, because there are about 30 nation states that would like a chat with him."

In contrast to its encryption software, however, WannaCry's worm, which spread it so fast, is a sophisticated piece of coding. That is because it reuses software stolen several months ago from America's National Security Agency (NSA), and released online by a hacking group known as the "Shadow Brokers". The stolen software exploits a vulnerability that the NSA discovered in a piece of Microsoft's Windows operating system known as the Server Message Block, which handles networking between computers. This bug, which first appeared in Windows XP, in 2001, has stuck around in all subsequent versions. How long the NSA had known about it, and kept it secret, is unclear.

Computers manage their connections to one another through a series of ports, normally 1,024 of them. Each is assigned a specific sort of task, and can be opened and closed as needed. Port 25, for instance, is designated for sending e-mail. The vulnerability discovered by the NSA lets WannaCry spread from machine to machine, as long as those machines have port 445 left open. On home computers' internet connections, and on astutely managed institutional networks, port 445 is usually kept firmly shut. Exactly how many left it open, and fell victim to WannaCry, has yet to be determined.

Software underbelly

Despite the flurry of headlines, WannaCry is not the worst malware infection the world has seen. Other worms—Conficker, MyDoom, ILOVEYOU—caused billions of dollars of damage in the 2000s. But Bruce Schneier, a noted independent security expert, points out that people seem to have a fundamental disregard for security. They frequently prefer to risk the long-term costs of ignoring it rather than pay actual cash for it in the present.

Here, perhaps, the headlines around WannaCry may do some good. Managers in organisations like the NHS know that there will be no second chances for them in this area. If there is another successful attack, heads will roll. WannaCry's fame has also drawn attention to criminals' normal business of attacking targets that can be relied on to pay up quickly and quietly. Often, these are indeed hospitals. But not the hospitals of an entire country. This is not publicity those criminals will welcome.

That said, the activities of malware criminals do indeed resemble those of Britain's 1930s smash-and-grab gangsters in that they take advantage of getaway speeds offered by new technology—speeds with which the authorities have not yet caught up. Criminals can, in effect, retreat at the velocity of light, to a safe jurisdiction that is near-impossible to discover anyway. If they are to be stopped, someone will have to devise modern-day electronic equivalents of road blocks and search warrants. ■

Cyber-security

The exploits of bug hunters

Trading in software flaws is a booming business

TO HELP shield their products from ransomware like the recent worldwide WannaCry attack, most big software-makers pay "bug bounties" to those who report vulnerabilities in their products that need to be patched. Payouts of up to \$20,000 are common. Google's bounties reach \$200,000, says Billy Rios, a former member of that firm's award panel. This may sound like good money for finding a programming oversight, but it is actually "ridiculously low" according to Chaouki Bekrar, boss of Zerodium, a firm in Washington, DC, that is a dealer in "exploits", as programs which take advantage of vulnerabilities are known.

Last September Zerodium's payment rates for exploits that hack iPhones tripled, from \$500,000 to \$1.5m. Yuriy Gurkin, the boss of Gleg, an exploit-broker in Moscow, tells a similar story. Mundane exploits for web browsers, which might, a few years ago, have fetched \$5,000 or so, are now, he says, worth "several dozen thousand". Unsurprisingly, Zerodium and Gleg are not alone in the market. Philippe Langlois, head of P1 Security, a Parisian firm, reckons there are more than 200 exploit brokers in the world.

Such brokers buy exploits from freelance hackers, who make a profitable hobby out of searching for vulnerabilities. They then sell them to those who can use them. Some, Zerodium and Gleg among them, are perfectly respectable, and choosy about whom they deal with (Zerodium says it declines more sales than it makes). Government agencies in America and western Europe, in particular, are eager customers. Others are less scrupulous. For example, e-mails posted to WikiLeaks in 2015 show that Hacking Team, a Milanese broker, sold exploits to Bahrain, Egypt, Morocco, Russia, Saudi Arabia, Sudan and the United Arab Emirates, none of which has a sparkling record of democracy and freedom.

Exploits are also sold in shadowy online markets, where customers are



often out-and-out criminals. At some point, no doubt, WannaCry changed hands this way. Nor is that lack of doubt rhetorical, for monitoring activity in the nether parts of the web can, and in this case did, offer omens of trouble to come.

Just as someone will sell you an exploit, so someone else will sell you a warning. One such is CYR3CON, in Phoenix, Arizona. This firm produces reports of possible threats, based on the results of its software sifting automatically through the online writings, in 15 languages, of hackers involved in the field.

On April 15th, a month before WannaCry began freezing data on Windows-based computers, CYR3CON's software picked up chatter about exploits designed for just that task. Eleven days later, it highlighted exchanges about one such exploit that had been installed but not yet activated on more than 62,000 computers. Many were in medical facilities that had previously paid up "without unnecessary conversations". Forewarned, those who had been using CYR3CON's services could take precautions. Others were not so fortunate.

Solar power

Does light equal enlightenment?

The benefits of cheap illumination in remote areas can be limited

FOR sunny places not connected to the electricity grid, the falling price of solar panels and LED lighting promises a bright future. No more smoky, lung-damaging kerosene lamps. Greater security and safety. More ways to connect with the world—even if that involves only something as simple as being able to charge a mobile phone. And, above all, the chance to work or study into the evening and thus improve both a family's immediate economic circumstances and its children's future prospects. It is a tale of hope. But as a study just published in *Science Advances*, by Michaël Aklin of the University of Pittsburgh and his colleagues, shows, these potentially glowing benefits can in some cases amount to not very much at all.

More than 1bn people around the world have no access to electricity. Providing them with off-grid solar power is something almost all development experts agree is A Good Thing. Yet the evidence for how beneficial it really is was largely observational. Off-grid solar has not been put through the rigours of a large, randomised, controlled trial, of the sort that scientific researchers like to use to test relationships between cause and effect. To fix this oversight, Dr Aklin set about organising just such an experiment.

He and his colleagues teamed up with Mera Gao Power (MGP), one of India's pro-

viders of solar-power systems. Their volunteers lived in small villages, all of which lacked electricity, in the Barabanki district of Uttar Pradesh, a state in northern India. Of the 81 villages in the study, 41 were left alone, to act as controls. In the other 40, MGP offered to install a basic, solar-powered minigrid service provided that at least ten households per village subscribed 100 rupees (about \$1.70) each a month to be connected to it. That sum represents about 2% of a typical household's expenditure. Those that signed up then had their homes fitted with two bright LED lights and a mobile-phone charging-point.

Connection to a minigrid brought some advantages. Households using solar power in this way cut their consumption of unsubsidised kerosene by a fifth—though, because a limited supply of kerosene is subsidised by the government in this part of Uttar Pradesh, the actual sum saved amounted to about 48 rupees per month, only half of the cost of the (unsubsidised) grid connection. When it came to social benefits from the use of solar power, though, Dr Aklin and his colleagues found little or no evidence of their existence. People did not work longer hours, did not start new businesses and did not study more. Overall, in this case at least, the researchers concluded that solar power had few measurable effects.

This certainly was not what had been hoped for. Dr Aklin conjectures that the explanation may lie with the relatively paltry nature of what was offered, which amounted to an hour or two's extra lighting per day. That is a fair observation, but bigger, more complex systems that would make substantially larger amounts of solar power available would probably be too expensive for villagers in this area.

What would make a big difference, says Dr Aklin, are better batteries that can garner more of the sun's bounty in the first place. "If batteries were cheaper and could store more power," he observes, "off-grid companies could offer larger systems that enable rural households to run appliances and machinery." That, rather than a bit of light in the evening, might really promote economic activity.

As it happens, the cost and performance of batteries is steadily improving, not least because of the development of electric cars. And even if new batteries remain too expensive for use in village solar systems, perhaps second-hand ones that are no longer up to the job of providing the oomph for vehicles will be able to help power villages instead. ■

Clean water

Parsing gas

A way to make water potable using carbon dioxide

THE world's thirst for clean drinking water is vast and growing. It is also unslaked, particularly in poor countries. The World Health Organisation estimates that more than 660m people rely on what it calls "unimproved" water sources. A quarter of this is untreated surface water. Moreover, even water that has undergone at least some treatment may not be potable. Across the planet, 1.8bn human beings drink water contaminated with faeces. All this polluted water spreads diseases such as cholera, dysentery and typhoid. Every year, more than half a million people die from waterborne diarrhoea alone. As they describe in a paper in *Nature Communications*, however, Howard Stone of Princeton University and his colleagues have an idea for a new and cheap way to clean water up by mixing it with a substance normally regarded as a pollutant in its own right—carbon dioxide.

There are many existing ways to make water safe to drink, but each has drawbacks. The first step is usually sedimentation: store the stuff in ponds and let as much of the muck as possible drop out under the influence of gravity. But that cannot cleanse water of minuscule, buoyant particles, including many bacteria and viruses, which will not settle. These have to be removed by a second process: filtration.

Filtering water may be done through porous membranes, but that requires pressure, and thus needs costly pumps. Also, the membranes foul quickly, so require frequent replacement. Filtration through beds of sand needs no membranes, but ►►



But will it help him learn? ►►

▶ does need chemicals called flocculants to persuade pollutants to coagulate, so that they can be caught by the filter. An alternative, “slow sand” filtration, employs the layers of algae and bacteria that develop on wet sand grains to remove pollutants. It thus requires fewer chemicals. Slow-sand filters must, though, be refurbished regularly. And both sorts of sand filtration miss up to 10% of harmful bacteria.

Dr Stone’s alternative is to abandon the idea of filtration altogether. Instead, he plans to apply a phenomenon called diffusiophoresis to the problem. When CO₂ and water meet at the liquid’s surface they react to make carbonic acid. This is a solution of hydrogen ions, which are positively charged, and bicarbonate ions, which are negative. The newborn ions then diffuse away from the surface and into the main body of the water. That creates a gradient of ionic concentration perpendicular to the surface. Dr Stone’s insight was that, because the gravity-resistant particles which need to be removed almost always have either positive or negative static-electric charges on their surfaces, their interaction with an ion gradient of this sort, which is itself composed of charged particles, could be used to move them around.

He and his colleagues therefore created an experimental apparatus through which a channel of water flowed in parallel with two channels of gas, one on either side of it, separated from the water channel by gas-permeable membranes. One of the gas channels carried CO₂. The other carried air. CO₂ thus dissolved into the water on one side of the stream, and out again on the other side, entering the airstream and keeping the gradient constant.

As the team hoped, this arrangement caused suspended particles with positive surface charges to concentrate towards the CO₂ side of the water stream, and those with negative surface charges to concentrate towards the air side, leaving the centre of the stream more or less particle-free. In a working system it would simply be a question of splitting the water stream into three as it left the processor, with the two outer branches being recycled and the inner one tapped and piped to consumers.

Dr Stone’s apparatus removed all but 0.0005% of the target particles. And it used less than a thousandth as much energy to do so as membrane filtration would have required. A full-scale version would not need additional chemicals beyond the CO₂. And it should, Dr Stone thinks, be easy to maintain.

As to the necessary CO₂, he imagines this would come from power stations and other industrial processes, such as cement-making, that produce the gas in large quantities as exhaust. This would restrict diffusiophoretic water plants to industrial cities—but, since such cities are huge sources of demand, that is hardly a problem. ■

The value of old egg collections

Evolutionary warblings

Nest parasites help to create species-specific eggshell patterns

COLLECTING wild birds’ eggs is a hobby, once popular, that is frowned on today. In some countries, it is illegal. That, though, makes past collections the more valuable. And one of them, assembled by the splendidly named John Colebrook-Robjent and bequeathed by him, in 2008, to the Natural History Museum’s outpost at Tring, north-west of London, has recently been pressed into service. Its job was to answer questions about the arms races that go on between some birds and the nest parasites (cuckoos and so forth) that attempt to trick them into raising the parasites’ young.

That this behaviour causes parasites’ eggs to evolve to look like those of their hosts, and the hosts’ eggs to evolve not to look like those of parasites, is well established. But Eleanor Caves of Cambridge University and her colleagues wondered if there was more to it. They noted that some nest parasites have sub-groups, known as races, which specialise on different hosts, even in places where these races overlap. One such place is Zambia, the land Colebrook-Robjent adopted after he had been seconded there from Britain, to serve in its army.

In this case, as they report in the *Proceedings of the Royal Society*, the researchers suspected that a second evolutionary pressure would be at work—to avoid laying eggs that look like those of a different host species, so as to evade the attentions of parasite races that specialise on

that species. Employing Colebrook-Robjent’s collection, they studied the eggs of Zambian warblers. Some of these were laid by species parasitised by birds called cuckoo finches and some by species not so parasitised. For each egg, they measured its precise spectral colour, and also five aspects of its patterning, such as the contrast between markings and background, and the proportion of its surface that was covered by markings.

Using a statistical technique called discriminant function analysis, they used these data to measure how closely eggs resembled one another. As predicted, the eggs of different parasitised species looked far more distinct than did those from different unparasitised species. They could more easily be seen as belonging to the species in question. This, in turn, would be expected to encourage the eggs of different cuckoo-finch races to resemble those of their hosts more closely—which examination of cuckoo-finch eggs in the collection confirmed was true.

Such an arrangement does, however, take time to emerge, as another part of the collection demonstrated. The eggs of a group of weaver-bird species parasitised by diederik cuckoos proved hard to tell apart—as did those of the cuckoos. These weaver birds are, however, closely related, and may be newly separated species. Come back in a few hundred thousand years, and their eggs could be as distinct as warblers’.



Unscrambled eggs



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Contemporary art

Stitch-up

VENICE

Welcome to the “hippy” Biennale

IN A disused medieval rope factory in Venice a canvas swag and reels of coloured thread hang from the ceiling. Various visitors, mostly women, perch on stools around it, stitching on items they have taken from their pockets and their handbags. Others wait to join in. This is a work of art by David Medalla, a 75-year-old artist from the Philippines. It is “participatory”, like many of the pieces around it. In art circles this means it is about the creativity of everyone rather than the genius of the individual; the use of domestic materials and techniques confers dignity on work that is mostly done by women and low-tech labour.

The Venice Biennale, which opened on May 13th, is the most important event in the international art calendar. It was founded in 1895, initially to champion living Italian artists, and, apart from interruptions during the first and second world wars, it has taken place ever since. The inauguration of the first national pavilion, Belgium’s, in 1907, turned the Biennale into the art equivalent of a world fair; 86 countries now have an official display.

Part of what gives the Venice Biennale its energy is that no single entity controls either the art or how it is funded. The city provides the showcase, the artists the show. National institutions, such as the British Council, do their bit. But more is needed. Although the Biennale’s own art-sales office was closed in 1968, internation-

al galleries, private collectors and wealthy donors are all involved—sometimes working closely together, sometimes not.

The Biennale can make stars of artists and curators. Robert Rauschenberg’s pre-eminence (and the sign that the balance of power in the post-war art world had shifted from Paris to New York) was confirmed in 1964 when he became the first American to win the main prize, the Golden Lion. Harald Szeemann, the Swiss art historian who directed the Biennale’s central exhibition in 1999 and 2001, marked the rise of the “supercurator”. Those judged to have their fingers on the zeitgeist are keenly studied by curators and dealers alike.

This year’s Biennale may well be the biggest ever. Christine Macel, chief curator of the Pompidou Centre in Paris, has spread the work of 120 artists over two huge spaces for the central exhibition. In addition to the national pavilions, 45 other shows are dotted around the city, some very big. The Gallerie dell’Accademia has hung 75 works by Philip Guston, an American artist, who died in 1980. His near contemporary, Mark Tobey, has a show of 70 works at the Peggy Guggenheim Collection and Damien Hirst, a British artist, is showing over 200 works in the François Pinault Foundation’s two galleries.

In contrast with the fierce anti-capitalism of the 2015 Biennale, Venice this year is awash with social conscience. Spain, the Netherlands, Israel, Iraq, Tunisia, Australia,

Taiwan, Poland, the “stateless” NSK Pavilion and the Diaspora Pavilion are among the many exhibitions dealing with social issues, from housing to migration.

This trend is most visible in Ms Macel’s “Viva Arte Viva” (“Long live living art”). Some works celebrate indigenous peoples, others ecology and women’s sexuality from a feminist point of view; there is a lot of knotting, knitting, felt and other fabric (pictured). Macramé was also spotted. Much is inspired by collaboration and communities, refugees and fears about rising nationalism. Ms Macel has sought out artists from the margins, many of them forgotten, older or dead. Most are barely known. Over 100 of the 120 she has selected have never displayed in the Biennale’s main exhibition before.

Ms Macel says her show is a reaction to “individualism and indifference”. She is more interested in artists who want to change the world than in the stars favoured by the art market. The exhibition is only 30 minutes’ walk, but a million miles away in intention, from Damien Hirst’s luxuriously presented “Treasures from the Wreck of the Unbelievable”, where all the works—in silver, gold, precious stones, marble, malachite and bronze—are for sale at prices that range from \$500,000 to \$5m.

For some visitors, such as Patrizia Sandretto Re Rebaudengo, an energetic collector with her own art foundation in Turin, “Viva Arte Viva” is a “generous and Utopian” exhibition. Others have been less kind, dubbing it the “hippy Biennale”. It is clearly a corrective to the slick, clever and sometimes cynical work made by the likes of Mr Hirst and sold by the big commercial galleries. The trouble is that a lot of it feels preachy and flat. It is hard to take seriously a film in which Anna Halprin, a 96-year-old American artist, leads troupes of followers in a “healing” dance, an action to ►►

▶ “reclaim” Mount Tamalpais near San Francisco where several women were murdered in the late 1970s and early 1980s.

Olafur Eliasson, a well-known Icelandic artist, has bused in refugees from the mainland to provide (unpaid) help to make small lanterns for his ecological Green Light Project. The public is invited to work with the migrants, since it takes two to make each lamp. Another work, a huge crocheted tent by Ernesto Neto, is a collaboration with the Amazonian Huni Kuin people, who perform occasional rituals before visitors who sit cross-legged within. These works, which emphasise collaboration and co-operation, are well intentioned, but the exhibition is so crowded that, instead of participating, most viewers just shuffle past, as if at a human zoo.

The most successful pieces pack an emotional punch. In the German pavilion, which won the top prize for best national presentation, Anne Imhof has installed a slippery glass floor a few feet above ground level, which is lit a brilliant white (pictured). Visitors step gingerly across, looking down at bits of dirty cotton wool, phone cables, amplifiers, hospital sinks, broken eggs and unsettling brown stains. Then performers (young, black-clad and androgynous) begin to move under the floor. It is disturbing to feel you are walking over your fellow human beings while outside pairs of Dobermans are held in large metal cages. The meaning of the piece is elusive, but its menace is palpable and hard to forget.

In the American pavilion melancholy blackish-purple works by Mark Bradford, an African-American artist, refer obliquely to slavery and the migration crisis. Mr Bradford, an eloquent advocate, is also actively engaged in social projects in his native Los Angeles and in a women’s prison in Venice, but he says that this “is about working with people long term” and “listening and signing the cheques for what they want”, not about “co-opting people” into his own artistic practice.

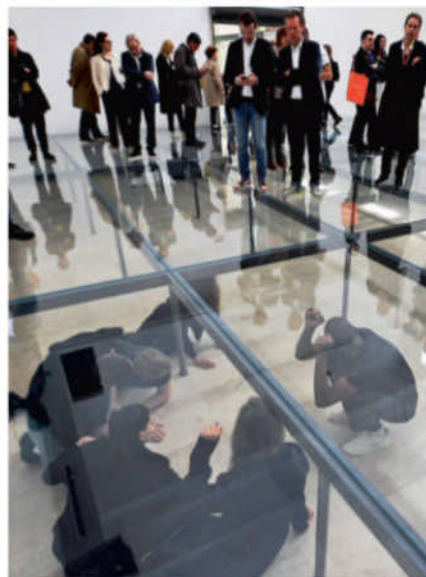
In the Swiss pavilion a slow film shows an 81-year-old man telling the story of his mother, Flora Mayo, as a young artist. In the late 1920s she collaborated with the young Alberto Giacometti, who was also her lover. But she has barely been mentioned since except for a short, derogatory entry in James Lord’s admired (and admiring) biography of the Swiss artist which was published in 1985. The film’s underlying message is about how women are often written out of history; but what makes it powerful is that it is an elegy to time passing, to the sadness of wasted talent and the pain endured within families.

Meanwhile, in the South African pavilion, Candice Breitz filmed two Hollywood stars, Julianne Moore and Alec Baldwin, acting out real statements from refugees: a woman locked in a smuggler’s truck, a

man fleeing charges of heresy, another terrified of being outed as gay. It is uncomfortable to hear the normally jocular Mr Baldwin saying with sincerity: “I really admire actors for the work you do,” and “Thank you, Alec, for taking part in this project.” Yet honest visitors admitted to be more fascinated by the highly emotive edited performances of the Hollywood stars than by the rather dull videos of the real refugees which are revealed in a second gallery.

By the time the Biennale closes in late November, more than 500,000 visitors will have made their way through it. Many can be expected to be just as liberal or international in their outlook as those who were invited for the preview week and treated as VIPs. The problem is that so many idealistic artists, even in this curated gathering, produce work that is simplistic and visually unexciting.

That may partly explain why some visitors still cleave to work that is glossy and glamorous, and fail to understand why more and more people find its moneyed character distasteful. The objects most commonly sewn on to Mr Medalla’s “A Stitch in Time” were business cards, not the meaningful embellishments the artist intended. Meanwhile, staff preparing a lavish party for François Pinault, an art collector, a major investor in luxury-goods firms, a backer of Mr Hirst’s show and the owner of Christie’s auction house, became anxious lest the 50 lemon trees brought in to decorate the venue looked less than fruitful. Orders were given for hundreds of plump extra lemons to be hand-tied to their branches. Despite the glasses raised to art and idealism at Venice, nothing illustrated the contrast between the rich and poor, the VIPs and the artists than the sight the next day of so many of those lemons, discarded and bobbing in the lagoon around San Giorgio Maggiore. ■



Art of the menace

Financial crises

Secret agents

The End of Theory: Financial Crises, the Failure of Economics and the Sweep of Human Interaction. By Richard Bookstaber. Princeton University Press; 240 pages; \$29.95 and £24.95

AS QUEEN ELIZABETH II famously once pointed out, most economists failed to predict the crisis of 2007-08. In a lecture to the American Economic Association in 2003, Robert Lucas argued that macroeconomics had succeeded in so far as the “central problem of depression prevention has been solved, for all practical purposes”. Yet within five years the world faced its worst crisis since the 1930s.

In his new book, “The End of Theory”, Richard Bookstaber approaches the issue from a different direction, as someone who has managed risk at leading investment banks and hedge funds. He believes that “traditional economic theory, bound by its own methods and structure, is not up to the task” of predicting crises.

The author argues that the economy is subject to four important phenomena that make traditional economic models useless. The first are “emergent phenomena”. The sum of human interactions can produce unexpected results that are not related to the intentions of the individuals involved, just as traffic on a motorway can bunch, or crowds can suddenly stampede. The second phenomenon is “non-ergodicity”. An ergodic process follows the same rule every time. If you roll traditional dice, the odds of getting a three will always be one in six. But in the world of human interactions, probabilities constantly change. A linked phenomenon is known as “radical uncertainty”; people do not know the range, or the probability, of future outcomes. The fourth is “computational irreducibility”; the future is so complex, and the effect of human interactions so unfathomable, that people cannot possibly create models to anticipate the outcome.

Mr Bookstaber is also keen on the concept developed by George Soros, a hedge-fund manager, of “reflexivity”—the idea that observations and beliefs about the state of the economy change behaviour, and those changes in behaviour affect the economy. For example, a belief that house prices will always go up makes buyers willing to pay high prices for homes, and banks more willing to lend; the resulting enthusiasm among debtors and creditors duly pushes house prices higher.

What people must do, Mr Bookstaber argues, is embrace the complexity and understand the way the system operates. ▶▶

▶ There are several different types of agents in the financial system, each with their own motivations; some of these (banks in particular) play multiple roles. The way each agent behaves in any given situation may differ depending on the liquidity in the market, and the extent to which it is using borrowed money to finance its activities. The crisis of 2007-08 was the result of indebted institutions operating in an illiquid market.

Watching what markets do in normal times is thus of little help in understanding how they will operate in a crisis. As the author writes: “Measuring relatively small transactions does not give us much insight, just as watching snowshoe hares scurry across a frozen lake gives no indication of whether the ice will support a man.” He takes readers through a step-by-step explanation of the crisis of 2007-08, showing the gradual infection of the system as the different agents followed their own goals.

The analysis is top-notch, and anyone who wants to understand the workings of the financial system will benefit from reading this book. But those looking for a quick fix will be disappointed. Mr Bookstaber says there is no specific model to deal with crises. Instead, he is describing a process—an intellectual approach to understanding the system.

Furthermore, although the author gives a kicking to mainstream economics in general, his analysis focuses entirely on the financial sector. The problems that bedevil economists (inflation, unemployment, productivity) do not feature. The challenge facing traditional economists is to incorporate Mr Bookstaber’s insights into their forecasts. A daunting task. ■

A memoir of Africa

Love and adventure

Love, Africa: A Memoir of Romance, War, and Survival. By Jeffrey Gettleman. *Harper*; 336 pages; \$27.99. To be published in Britain in June; £18.99

“JUST remember, let’s not get too ‘ooga-booga’ out there.” So warned one of Jeffrey Gettleman’s bosses in 2006, shortly before he flew off to take over as east Africa bureau chief of the *New York Times*. When Mr Gettleman looked confused, the man patiently explained: “You know, the stereotypes, the platitudes, Africa as primitive and violent.” Soon after he got to Nairobi, a seasoned Africa hand sat Mr Gettleman down and over a long lunch offered his own advice. “Whatever you do, Jeff...don’t forget the ‘ooga-booga’. It’s what makes Africa Africa.”



Hot and hungry—Africa in stereotype

The term “ooga-booga” sounds a little outlandish to anyone seriously covering Africa. But the dilemma facing Mr Gettleman—how to pique the interest of Western readers in a part of the world where history has invariably been portrayed as dark, without simply reinforcing their prejudices—is one that is all too familiar to most who write about the continent.

With this uneasy tug-of-war in mind, Mr Gettleman embarked on a decade of reporting on a region, large parts of it torn by conflict, that was to earn him a Pulitzer prize in 2012. His reporting took him to areas where people were being killed, raped or starved. “I felt irresponsible sinking time into a lighter story when I knew that one short plane trip away, people were being slaughtered,” he muses in his book. “A story in our pages really does have the power to put pressure on governments to adjust their policies or the United Nations to send in more peacekeepers.”

Sadly, however, there is little sense of that higher purpose in this book, which places the author at the centre of all the dramatic events occurring around him, interweaving them with a love story. His posting to Baghdad early on in the American occupation offers few insights into a conflict that still reverberates through the Middle East. Instead Mr Gettleman talks about the electrifying sex he had with a photographer while cheating on the woman he was later to marry. His recounting of a trip deep into the Ogaden region of Ethiopia with a rebel army reveals hardly anything about the conflict. Instead you learn about the spat Mr Gettleman was having with his wife. His visits to the Democratic Republic of Congo say little more about the place than that many women were raped there. Mr Gettleman seems less concerned about what he has seen than about the decision by one of his editors in New

York to cut from his copy the lurid descriptions of a group of women being forced to eat a fetus freshly killed by members of a rebel group. Despite his intention not to get too “ooga-booga” when writing about Africa, that is exactly where he ends up.

Yet for all that one may not learn much about Africa from this book, Mr Gettleman’s writing certainly zips along. His tales, whether of madcap antics such as nearly getting arrested for illegally climbing Mt Kilimanjaro as a student to being arrested years later for sneaking into the Ogaden, convey a vivid sense of a place where anything seems possible. ■

Essays from Australia

The bard of the beach-front

The Boy Behind the Curtain: Notes from an Australian Life. By Tim Winton. *Picador*; 300 pages; £16.99

AUSTRALIA has no shortage of celebrated novelists. The best among them have often written about the distant past. Peter Carey twice won the Man Booker prize for fiction, both times for stories of the colonial era. Richard Flanagan and Thomas Keneally received the same award for tales about the second world war. But few Australians have chronicled contemporary small-town life as thoughtfully as Tim Winton. His writing is to Western Australia’s coastline what Thomas Hardy’s was to the valleys of Wessex.

“The Boy Behind the Curtain” is not Mr Winton’s first memoir: he described the places that shaped his life in “Land’s Edge” (1993) and “Island Home” (2015). But his ▶▶

▶ new book is his most personal, showing how forcefully the undercurrent of his own experiences flows through his fiction. As a teenager he was a “bright young oik” straining against his humble working-class roots, just like Bruce Pike, the narrator of “Breath” (2008). Bruce, trapped in a coastal town of loggers and farmers, escapes into the worlds of Jack London, Ernest Hemingway and Herman Melville. Luther Fox, a hillbilly fisherman in “Dirt Music” (2001), entertains himself with John Keats and Joseph Conrad. Mr Winton, who grew up in Albany, a port 250 miles (402km) from Perth, delved into the theology of Dietrich Bonhoeffer and Karl Barth. Though proud of his earnest community, he wonders whether any of his churchgoing companions “had read even a page of Tolstoy”.

Like Bruce, Mr Winton was raised by loving parents but driven to seeking thrills. The titular curtain is the one from which the 13-year-old author would point his father’s (unloaded) rifle at passers-by, violating years of safety lessons. He gratefully recalls that he discovered writing as a more potent channel for his restlessness. The happiness of his home life was constantly threatened. Mr Winton’s father was a traffic cop who was traumatised by the number of times he had whispered reassurances to dying teenage drivers. He was nearly killed in a hit-and-run when his son was five, spending days in a coma; the author himself was hospitalised after a car crash at the age of 18. Even in the most stable households, Mr Winton learned, “everything you know and see is fragile”. Little wonder that Luther’s entire family is killed in a road accident, and Bruce’s father by an errant beam at the sawmill.

Mr Winton’s new book is at its best when the author is telling his own story, such as the struggle with the Bible-thumping of the local church, which exhausted him with its literalism but also taught him “the beauty and power of language”. He has a distinctively Aussie idiom. Choir practice resembles football players on “a gallop around the paddock”. A question about the soul poses “a real googly”. Surfing is another profound influence on his writing: dancing on the crest of the ocean “unlocked the artist” in him. Composing a novel is like waiting for a wave of inspiration between lulls. At times his prose echoes Melville’s, with thunderous adjectives crashing onto one another while the verbs churn the sentences along. At others it has Hemingway’s sparseness and bravado: “We talked about skill and courage and luck—we shared all that, and in time we surfed to fool with death,” runs a sentence in “Breath”.

Dotted between his memories are essays about Australia’s ills. Mr Winton makes a few gibes at the well-meaning but uppity folks in Melbourne and Sydney and has an obvious disdain for journalists. But he is articulate about his country’s abuse of Aborigines and asylum-seekers, its toxic attitude to the lower middle class and its sluggishness in protecting its environment. His paeans to conservation and the poor are heartfelt. This, after all, is a man who paddles among endangered sharks and grew up in the hard country of the west. His book will resonate with readers in Australia—but should be enjoyed by those elsewhere, too. ■

Fiction

The coast of Utopia

Havergey. By John Burnside. *Little Toller*; 167 pages; \$23 and £12

LIKE the narrator of “News from Nowhere”, the novel that William Morris brought out in 1890, the protagonist of “Havergey”, John Burnside’s monograph, goes to sleep in 2017 and wakes to find himself in a futuristic community. Everything there is shared, and the natural order is always judged to be more important than human schemes.

A catastrophic series of plagues, known as “The Dark Time” or “The Collapse”, has reduced the global population from over 8bn to fewer than 2bn. Much of the world is “overrun with free pollutants and marauders”. But on Havergey, an island off the coast of Scotland, a small Utopian society has formed. Confined to a cabin known as “Quarantine”, Mr Burnside’s protagonist John—who travels to the future in a contraption made to look like a blue police box

and called Tardis B—is given a series of documents that reveal the history of the island and its inhabitants, and help him understand the anarchic principles on which the community is based.

The premise sounds like a post-apocalyptic sci-fi novel, but Mr Burnside is more interested in exposition than plot and characterisation. “Individual stories didn’t matter, it was the ideas that mattered,” one of his characters says in an aside that might be describing the book itself. The fictional premise is a scaffold on which the author hangs his theories about how to create an ecological and economic Utopian society.

Havergey’s citizens believe that “there is no human order that could be preferred to the natural order”—for which they use the Chinese word *tao*, meaning path, key or principle. To this end, they meditate daily, outlaw the concept of individual ownership and try to maintain an ever-shifting balance with nature in the understanding that “Utopia is bound to be relative” and “only the moment is perfect.”

As they describe the island gradually returning to its wild state, a process they call the “Chernobyl Effect”, Mr Burnside’s characters condemn the damage done to the planet by the “Machine People”, as modern civilisation is known. Much of the humour in the book is derived from a futuristic perspective on some of mankind’s cultural idiosyncrasies, from sitting “in dark rooms watching a little box in the corner for hours on end” to paying people to make music that all sounds the same.

Mr Burnside raises some interesting moral questions as he explores the idea of a society governed by principles of honour and community, where killing is sometimes “the only way”. Short of a catastrophic epidemic, however, his vision will remain elusive. “Overpopulation was not a sexy subject,” John says, reflecting on why nothing was done to curb it. Mr Burnside’s sci-fi approach may be what is needed to get people talking. ■



Correction: In our review of Geoffrey West’s “Scale” (“Mr Big”, May 13th) the picture of Cairo was miscaptioned as Lagos in some editions. And in “Hit and misspeak” we described the cost of Labour’s fictional £300,000 policing plan as £300 per officer. That should have been £30. Sorry.



The European Union Agency for Fundamental Rights (FRA) is publishing a

CALL FOR EXPRESSIONS OF INTEREST FOR THE MEMBERS OF ITS SCIENTIFIC COMMITTEE

The European Union Agency for Fundamental Rights (FRA) is an independent advisory body of the European Union (EU) based in Vienna, Austria. FRA is the EU's specialised expert body tasked with providing the EU institutions and the EU Member States with evidence based advice in the area of fundamental rights.

The Committee is composed of 11 independent persons highly qualified in the field of fundamental rights. It is mandated to guarantee the scientific quality of FRA's work across the full spectrum of fundamental rights. The term of the new Committee starts in June 2018 and ends in June 2023. **The deadline for applications: 07.07.2017 at 13:00 Vienna Local Time**

The Scientific Committee is a body of human rights experts that oversees the work of FRA as the EU's human rights institution. Members of former Committees, many of them university professors, came from different disciplines and have held high level positions, including being the Vice-President of the European Court for Human Rights, Chairpersons of National Human Rights Institutions, UN Special Rapporteurs, Members of international monitoring Committees and the like.

For full details and requirements, and how to apply, please consult the FRA website:

<http://fra.europa.eu/en/about-fra/recruitment/vacancies>



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Doe Run Peru is currently operating partially as an ongoing concern, and its productive units will be sold as assets, free and clear of all liens and encumbrances. The liquidation process is being led by Liquidators DIRIGE. We are scheduled to enter the first round of a Public Auction Process in July 2017. The Bases and Contracts for this sale are now available for purchase. Qualified bidders will obtain access to our Virtual Data Room, which contains full technical, legal and financial information.

If you would like to receive a teaser and additional information, please feel free to contact Dr. Oscar Zapata at ozapata@dirige.com.pe.

Economic data

% change on year ago

	Gross domestic product			Industrial production latest	Consumer prices		Unemployment rate, %	Current-account balance		Budget balance % of GDP 2017 [†]	Interest rates, % 10-year gov't bonds, latest	Currency units, per \$	
	latest	qtr* 2017 [†]	2017 [†]		latest	2017 [†]		latest 12 months, \$bn	% of GDP 2017 [†]			May 17th	year ago
United States	+1.9 Q1	+0.7	+2.2	+2.2 Apr	+2.2 Apr	+2.3	4.4 Apr	-481.2 Q4	-2.7	-3.5	2.32	-	-
China	+6.9 Q1	+5.3	+6.6	+6.5 Apr	+1.2 Apr	+2.3	4.0 Q1 [§]	+170.1 Q1	+1.7	-4.0	3.68 ^{§§}	6.89	6.52
Japan	+1.6 Q1	+2.2	+1.3	+3.5 Mar	+0.2 Mar	+0.7	2.8 Mar	+187.3 Mar	+3.5	-5.3	0.05	111	109
Britain	+2.1 Q1	+1.2	+1.6	+1.4 Mar	+2.7 Apr	+2.7	4.6 Feb ^{††}	-115.7 Q4	-3.3	-3.6	1.15	0.77	0.69
Canada	+1.9 Q4	+2.6	+2.1	+3.9 Feb	+1.6 Mar	+1.9	6.5 Apr	-51.2 Q4	-2.9	-2.7	1.45	1.36	1.29
Euro area	+1.7 Q1	+2.0	+1.7	+1.9 Mar	+1.9 Apr	+1.6	9.5 Mar	+398.9 Feb	+3.1	-1.5	0.37	0.90	0.88
Austria	+1.7 Q4	+2.0	+1.6	+3.1 Feb	+2.1 Apr	+1.8	5.9 Mar	+6.6 Q4	+2.4	-1.2	0.71	0.90	0.88
Belgium	+1.5 Q1	+2.1	+1.4	+4.0 Feb	+2.3 Apr	+2.1	6.9 Mar	-2.0 Dec	+1.0	-2.7	0.80	0.90	0.88
France	+0.8 Q1	+1.0	+1.3	+2.0 Mar	+1.2 Apr	+1.3	10.1 Mar	-27.4 Mar	-1.1	-3.1	0.88	0.90	0.88
Germany	+1.7 Q1	+2.4	+1.6	+1.8 Mar	+2.0 Apr	+1.8	3.9 Mar [‡]	+287.5 Mar	+8.1	+0.5	0.37	0.90	0.88
Greece	-0.3 Q1	-0.5	+1.2	+8.7 Mar	+1.6 Apr	+1.0	23.5 Jan	-0.7 Feb	-0.9	-1.0	5.66	0.90	0.88
Italy	+0.8 Q1	+1.0	+0.8	+2.8 Mar	+1.9 Apr	+1.4	11.7 Mar	+46.8 Feb	+2.4	-2.3	2.16	0.90	0.88
Netherlands	+3.4 Q1	+1.8	+2.2	+4.0 Mar	+1.6 Apr	+1.2	6.1 Mar	+64.8 Q4	+8.7	+0.7	0.63	0.90	0.88
Spain	+3.0 Q1	+3.2	+2.6	+8.9 Mar	+2.6 Apr	+2.1	18.2 Mar	+25.9 Feb	+1.6	-3.3	1.60	0.90	0.88
Czech Republic	+2.0 Q4	+5.3	+2.5	+10.9 Mar	+2.0 Apr	+2.4	3.4 Mar [‡]	+2.3 Q4	+0.9	-0.5	0.84	23.7	23.8
Denmark	+2.3 Q4	+1.2	+1.4	+10.7 Mar	+1.1 Apr	+1.4	4.3 Mar	+26.5 Mar	+7.1	-1.2	0.67	6.67	6.56
Norway	+2.6 Q1	+0.9	+1.7	+3.3 Mar	+2.2 Apr	+2.4	4.3 Feb ^{††}	+18.1 Q4	+5.0	+2.9	1.61	8.38	8.16
Poland	+3.3 Q4	+4.1	+3.2	+11.1 Mar	+2.0 Apr	+2.0	7.7 Apr [§]	-0.1 Mar	-1.0	-2.8	3.33	3.75	3.86
Russia	+0.5 Q1	na	+1.4	+0.8 Mar	+4.1 Apr	+4.3	5.4 Mar [§]	+34.9 Q1	+2.8	-2.8	8.13	56.9	64.7
Sweden	+2.3 Q4	+4.2	+2.6	+3.8 Mar	+1.9 Apr	+1.7	6.8 Mar [§]	+23.7 Q4	+4.8	+0.3	0.58	8.74	8.23
Switzerland	+0.6 Q4	+0.3	+1.3	-1.2 Q4	+0.4 Apr	+0.5	3.3 Apr	+70.6 Q4	+9.9	+0.2	-0.08	0.98	0.98
Turkey	+3.5 Q4	na	+2.8	+2.8 Mar	+11.9 Apr	+10.0	12.6 Feb [§]	-33.0 Mar	-4.4	-2.0	10.70	3.56	2.96
Australia	+2.4 Q4	+4.4	+2.7	+1.0 Q4	+2.1 Q1	+2.2	5.7 Apr	-33.1 Q4	-1.3	-1.8	2.53	1.35	1.36
Hong Kong	+4.3 Q1	+2.9	+2.8	-0.9 Q4	+0.5 Mar	+1.6	3.2 Mar ^{††}	+14.9 Q4	+6.5	+1.5	1.37	7.79	7.76
India	+7.0 Q4	+5.1	+7.1	+2.7 Mar	+3.0 Apr	+4.6	5.0 2015	-11.9 Q4	-1.1	-3.2	6.84	64.2	66.8
Indonesia	+5.0 Q1	na	+5.2	+5.5 Mar	+4.2 Apr	+4.2	5.3 Q1 [§]	-14.6 Q1	-1.9	-2.2	7.00	13,324	13,299
Malaysia	+4.5 Q4	na	+4.3	+4.5 Mar	+4.4 Apr	+4.0	3.4 Mar [§]	+6.0 Q4	+3.0	-3.0	3.94	4.32	4.02
Pakistan	+5.7 2016**	na	+5.4	+10.5 Mar	+4.8 Apr	+4.6	5.9 2015	-7.2 Q1	-2.6	-4.8	8.98 ^{†††}	105	105
Philippines	+6.6 Q4	+7.0	+6.5	+11.1 Mar	+3.4 Apr	+3.3	6.6 Q1 [§]	+0.6 Dec	+0.4	-2.8	5.01	49.8	46.4
Singapore	+2.9 Q4	-1.9	+2.3	+10.2 Mar	+0.7 Mar	+1.3	2.3 Q1	+56.7 Q4	+19.8	-1.0	2.08	1.39	1.37
South Korea	+2.8 Q1	+3.6	+2.6	+3.0 Mar	+1.9 Apr	+1.8	4.2 Apr [§]	+92.9 Mar	+6.3	-1.0	2.25	1,118	1,174
Taiwan	+2.6 Q1	+2.9	+2.3	+3.2 Mar	+0.1 Apr	+0.5	3.8 Mar	+70.9 Q4	+12.3	-0.8	1.08	30.1	32.6
Thailand	+3.3 Q1	+5.2	+3.8	-0.5 Mar	+0.4 Apr	+0.8	1.3 Mar [§]	+42.3 Q1	+11.0	-2.3	2.49	34.5	35.5
Argentina	-2.1 Q4	+1.9	+2.7	-2.5 Oct	— ***	—	7.6 Q4 [§]	-15.0 Q4	-2.6	-4.2	na	15.6	14.1
Brazil	-2.5 Q4	-3.4	+0.7	+1.1 Mar	+4.1 Apr	+4.3	13.7 Mar [§]	-20.6 Mar	-1.4	-7.7	9.56	3.11	3.50
Chile	+0.5 Q4	-1.4	+1.7	-8.3 Mar	+2.7 Apr	+3.0	6.6 Mar ^{†††}	-3.6 Q4	-1.4	-2.1	4.02	668	693
Colombia	+1.6 Q4	+4.0	+2.2	+4.8 Mar	+4.7 Apr	+4.1	9.7 Mar [§]	-12.5 Q4	-3.5	-3.1	6.33	2,888	3,017
Mexico	+2.7 Q1	+2.4	+1.7	+3.4 Mar	+5.8 Apr	+5.2	3.5 Mar	-27.9 Q4	-2.5	-2.4	7.15	18.6	18.3
Venezuela	-8.8 Q4~	-6.2	-5.5	na	na	+562	7.3 Apr [§]	-17.8 Q3~	-1.5	-19.6	10.43	10.2	9.99
Egypt	+3.8 Q4	na	+3.5	+13.7 Mar	+31.5 Apr	+22.5	12.0 Q1 [§]	-20.1 Q4	-5.6	-10.8	na	18.1	8.88
Israel	+4.0 Q1	+1.4	+3.4	+0.3 Feb	+0.7 Apr	+1.0	4.2 Mar	+12.4 Q4	+4.4	-2.6	2.10	3.61	3.82
Saudi Arabia	+1.4 2016	na	+0.8	na	-0.6 Apr	+2.0	5.6 2015	-24.9 Q4	-2.1	-7.4	3.68	3.75	3.75
South Africa	+0.7 Q4	-0.3	+1.1	-2.4 Mar	+6.1 Mar	+5.8	26.5 Q4 [§]	-9.5 Q4	-3.4	-3.1	8.69	13.2	15.6

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. ***Official number not yet proved to be reliable; The State Street PriceStats Inflation Index, Mar 25.42%; year ago 34.88% ^{†††††}Dollar-denominated bonds.

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¹Fuller, B./Romer, P., "Urbanization as Opportunity."

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Markets

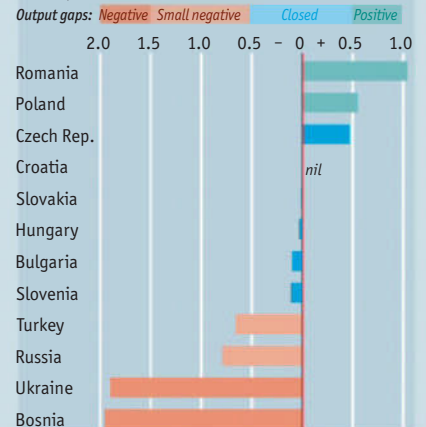
	Index May 17th	% change on		
		one week	in local currency	in \$ terms
United States (DJIA)	20,606.9	-1.6	+4.3	+4.3
China (SSEA)	3,251.0	+1.7	nil	+0.9
Japan (Nikkei 225)	19,814.9	-0.4	+3.7	+8.6
Britain (FTSE 100)	7,503.5	+1.6	+5.0	+10.3
Canada (S&P TSX)	15,273.7	-2.3	-0.1	-1.5
Euro area (FTSE Euro 100)	1,219.4	-1.6	+9.7	+15.9
Euro area (EURO STOXX 50)	3,584.8	-1.7	+8.9	+15.1
Austria (ATX)	3,119.2	+1.4	+19.1	+25.9
Belgium (Bel 20)	3,954.1	-2.2	+9.6	+15.9
France (CAC 40)	5,317.9	-1.5	+9.4	+15.6
Germany (DAX)*	12,631.6	-1.0	+10.0	+16.3
Greece (Athex Comp)	789.1	-0.4	+22.6	+29.6
Italy (FTSE/MIB)	21,283.7	-1.2	+10.7	+16.9
Netherlands (AEX)	529.1	-1.2	+9.5	+15.7
Spain (Madrid SE)	1,084.0	-2.3	+14.9	+21.4
Czech Republic (PX)	1,020.6	+1.1	+10.7	+19.6
Denmark (OMXC20)	875.2	-2.1	+9.6	+15.8
Hungary (BUX)	34,146.5	+1.4	+6.7	+12.8
Norway (OSEAX)	801.9	+1.5	+4.9	+7.7
Poland (WIG)	60,133.1	-2.8	+16.2	+29.2
Russia (RTS, \$ terms)	1,104.3	-0.7	-4.2	-4.2
Sweden (OMXS30)	1,628.4	-1.3	+7.3	+11.5
Switzerland (SMI)	9,001.6	-1.0	+9.5	+13.7
Turkey (BIST)	95,724.9	-0.5	+22.5	+21.0
Australia (All Ord.)	5,821.2	-1.5	+1.8	+4.8
Hong Kong (Hang Seng)	25,293.6	+1.1	+15.0	+14.5
India (BSE)	30,658.8	+1.4	+15.1	+21.8
Indonesia (JSX)	5,615.5	-0.7	+6.0	+7.2
Malaysia (KLSE)	1,775.7	+0.5	+8.2	+12.2
Pakistan (KSE)	51,511.4	+0.8	+7.7	+7.3
Singapore (STI)	3,224.1	-0.8	+11.9	+16.2
South Korea (KOSPI)	2,293.1	+1.0	+13.2	+22.2
Taiwan (TWI)	10,013.7	+0.5	+8.2	+15.8
Thailand (SET)	1,548.3	-0.8	+0.3	+4.1
Argentina (MERV)	21,674.2	+0.8	+28.1	+29.9
Brazil (BVSP)	67,540.3	+0.3	+12.1	+17.5
Chile (IGPA)	24,357.6	+0.6	+17.5	+17.7
Colombia (IGBC)	10,721.9	+1.7	+6.1	+10.3
Mexico (IPC)	48,748.0	-2.4	+6.8	+17.9
Venezuela (IBC)	65,376.6	+7.8	+106	na
Egypt (EGX 30)	13,064.0	+0.5	+5.8	+5.9
Israel (TA-100)	1,291.0	-0.1	+1.1	+7.8
Saudi Arabia (Tadawul)	6,947.4	+0.2	-4.0	-4.0
South Africa (JSE AS)	54,001.9	-0.5	+6.6	+10.4

Output gaps

The output gap measures how far away an economy is from its full potential, a sweet spot defined as the level of output consistent with stable inflation and full employment. Countries with positive output gaps tend to experience accelerating inflation, indicating economic growth may soon slow. The IMF thinks that many central and eastern European countries may have closed their output gaps this year (although it also warns that estimating these gaps precisely is tricky). In Romania, a 16% rise in the minimum wage is likely to lift domestic demand; inflation should also start to pick up. Policymakers in Bosnia and Ukraine, which still have big negative output gaps, will surely look on in envy.

Difference between actual and potential GDP

As % of potential GDP, 2017 forecast



Source: IMF

Other markets

	Index May 17th	% change on		
		one week	in local currency	in \$ terms
United States (S&P 500)	2,357.0	-1.8	+5.3	+5.3
United States (NAScomp)	6,011.2	-1.9	+11.7	+11.7
China (SSEB, \$ terms)	326.5	+1.2	-4.5	-4.5
Japan (Topix)	1,575.8	-0.6	+3.8	+8.7
Europe (FTSEurofirst 300)	1,538.0	-1.2	+7.7	+13.8
World, dev'd (MSCI)	1,882.6	-0.7	+7.5	+7.5
Emerging markets (MSCI)	1,008.6	+1.4	+17.0	+17.0
World, all (MSCI)	457.7	-0.5	+8.5	+8.5
World bonds (Citigroup)	918.0	+1.9	+3.9	+3.9
EMBI+ (JPMorgan)	820.5	+0.6	+6.3	+6.3
Hedge funds (HFRX)	1,232.7 ³	+0.1	+2.4	+2.4
Volatility, US (VIX)	15.6	+10.2	+14.0 (levels)	
CDSs, Eur (iTRAXX) ¹	61.8	-0.6	-14.3	-9.4
CDSs, N Am (CDX) ¹	61.7	+0.1	-9.0	-9.0
Carbon trading (EU ETS) €	4.6	+5.0	-30.4	-26.4

Sources: IHS Markit; Thomson Reuters. ¹Total return index.

²Credit-default-swap spreads, basis points. ³May 16th.

Indicators for more countries and additional series, go to: Economist.com/indicators

The Economist commodity-price index

2005=100

			% change on	
	May 9th	May 16th*	one month	one year
Dollar Index				
All Items	141.1	143.1	+1.2	+4.1
Food	152.8	154.4	+2.2	-6.1
Industrials				
All	129.1	131.3	+0.1	+20.0
Nfa ¹	134.1	139.6	+2.4	+16.2
Metals	126.9	127.7	-1.0	+22.0
Sterling Index				
All items	198.2	201.4	nil	+16.6
Euro Index				
All items	161.1	160.5	-2.3	+6.5
Gold				
\$ per oz	1,217.8	1,237.4	-3.9	-3.3
West Texas Intermediate				
\$ per barrel	45.9	48.7	-7.2	+0.2

Sources: Bloomberg; CME Group; Cotlook; Darmann & Curl; FT; ICCO; ICO; ISO; Live Rice Index; LME; NZ Wool Services; Thomson Lloyd & Ewart; Thomson Reuters; Urner Barry; WSJ. ¹Provisional ²Non-food agriculturals.

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A voice for the missing

Miriam Rodríguez Martínez, campaigner against the drug gangs of Mexico, was killed on May 10th, aged 50

THE *narcos* who infested San Fernando, in Tamaulipas state in north-eastern Mexico, did not always trouble to bury their victims. They left them by the side of Highway 101, a road some people said was the most dangerous in the country. Or they took them to some abandoned ranch in the rolling hills round the town, shot them and piled them up in one room. They did that in 2010 with 72 migrants from Central America, pulling them off their buses as they tried to travel to the United States.

Sometimes, though, the killers would hide their victims. Over several months in 2011 the police found 47 mass graves outside town with 193 bodies, probably bus passengers. And more graves could turn up anywhere, in the hard, stony ground among the thorn bushes. You could tell they were there because a bad smell hung around, or the ground was sunken or disturbed. Or you might spot a piece of bone. Miriam Rodríguez knew such signs well, because in 2014 she found, in just such a place, what remained of her daughter.

No officials had helped her. Frankly, in Tamaulipas, it was useless to ask them. The police and the state people were often hand-in-glove with the *narcos*. If not, they were helpless in the face of all the violence. Between 2006 and 2016, with war breaking out between the Zetas and the Gulf car-

tel over control of the main drugs route to the United States, 5,563 people disappeared in Tamaulipas. After the massacre of 2011 (everyone in town called it “the massacre”), it took a year for police to identify just 34 bodies. When Karen was abducted in 2012, just 14, just a child, Miriam refused to wait. She had the time and the money to find her and track her killers down, though it took two years.

Up till then, she had lived with the lawlessness as everyone else in San Fernando had. In the early 2000s the *narcos* had been around, but not too bad. If they came to the municipal market in the Plaza Hidalgo, where she ran her belts-and-bags business, they even paid for what they took. But the showy processions of SUVs with tinted windows, cruising slowly through town, became more menacing. Then the Zetas, the most brutal of the drug gangs, began to take people. The randomness was terrifying. Why, for example, did they drag away three women from the taco place beside the highway where they gave you two beers for the price of one? Why kill 193 people who had just been on the bus to Reynosa or who knew where? After that, people began to leave town; perhaps 10,000 left. Those who stayed hardly dared go out, and the shops were trashed anyway. The federal government sent the army in, and that

helped, but not enough, or Karen would not have gone.

From that day in 2012, Miriam’s life changed. It became a mission. She had always been strong, full of energy, a hard worker. Now her singlehanded efforts got 16 *narcos* charged for Karen’s abduction and 13 sent to jail. Day after day she went to the courts to make sure they stayed there. She also began to campaign on behalf of all San Fernando’s families with relatives who were missing. She set up two organisations for the *desaparecidos*, arranged Mothers’ Marches through town, supported the families, drew up a list of 800 victims to make a database, and hounded officials at every level of government.

Nothing and no one could shut her up. *No se andaba por las ramas*, said her friends; she didn’t beat about the bush. In a country where violence cowed too many people and journalists were killed for their reporting, she talked, and talked. Under her elegant jackets, her chunky earrings and glittery fake nails, she was a tigress. She carried a gun, too, in case any of the Zetas tried it on with her. They had once seized her husband, bundling him out of his work and into a car, but she had roared after them in hers and called in the army to arrest them.

Possibly she was too loud. She had other causes, too, such as complaining about outsiders renting space in the market, keeping locals out. At one point in her campaign for the disappeared, fed up with officials doing nothing, she appealed to the UN and the Inter-American Commission on Human Rights. In March she went eagerly to Texas to join an international procession of protest against Donald Trump’s immigration policies. It was called the *Caravana contra el Miedo*, against fear. She liked that.

Unanswered calls

She did want protection at home, though. She had a right to it, as she told any official who would listen. In March came the news of a massive break-out from the main state jail, 29 *narcos*, among them two she had put there for taking Karen. At that point she closed her business, not wanting the Zetas to track her to it, and by April she was sure that one day they would kill her. One policeman said he was on call for her; she rang him 30 times one day around four in the morning, testing, but got no answer. The police claimed to patrol past her house three times a day; she never saw them.

Mother’s Day, May 10th in Mexico, was a date to be treated with tamales in bed and serenades. She had two other children to spoil her, though no Karen, for whom she had done her best. Her day ended when, at about 10.30pm, a hustling band of Zetas called her out of the house. If they had waited a second, she would have told them exactly what she thought of them. ■

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THE DEEP

How cutting-edge technology is unlocking the largely
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