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The
Manchester
bombing

MAY 27TH-JUNE 2ND 2017

Ocean warning





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NEDBANK GOLF CHALLENGE



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DP WORLD TOUR CHAMPIONSHIP



MARTIN KAYMER,
HNA OPEN DE FRANCE



MATTEO MANASSERO,
ITALIAN OPEN



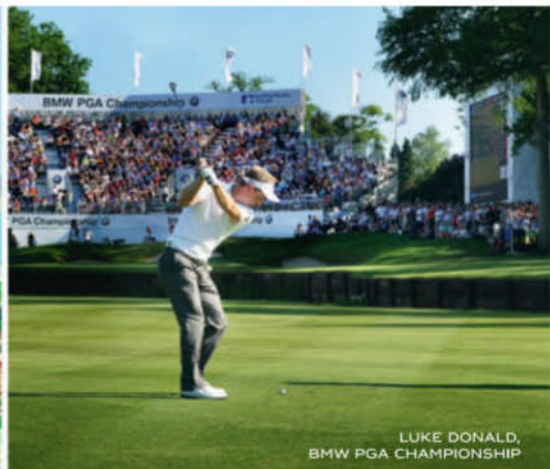
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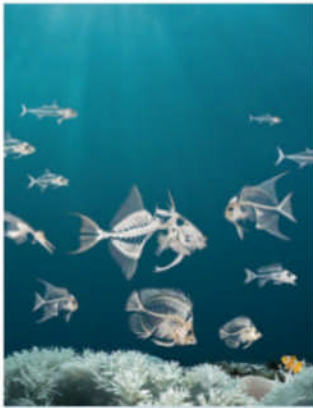
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Politics



An Islamist suicide-bomber killed 22 people and left more than 60 injured in **Manchester**, Britain's third-largest city. It was the country's bloodiest terror attack since 2005. The bomb was detonated in the foyer of a venue staging a pop concert; children were among the victims. Police think the bomber was part of a jihadist network and arrested several people. The threat level from terrorism was raised to "critical", the first time it has reached this highest category since 2007.

The **Conservative Party** reversed a headline policy less than a week after publishing the proposal in its election manifesto. A shake-up in social care had quickly been dubbed the "dementia tax". Fearing a backlash from older voters, Theresa May, the prime minister, sought to "clarify" the policy, but the U-turn was clear. The situation rekindled memories of the "bedroom tax", another policy felled by a catchy nickname.

Seven months after he was ousted by his own members, Pedro Sánchez was unexpectedly re-elected leader of **Spain's** main opposition Socialist Party. He must now reinvigorate a party that has lost almost half its support to the far-left Podemos.

More than 20 artists decided to boycott the National Festival of Polish Song in Opole, one of **Poland's** top music festivals, following reports that a singer had been barred from appearing because she had taken part in protests against the govern-

ment. The event now faces cancellation for the first time since 1982, when the country languished under communist-imposed martial law.

The people have spoken!

Iran's moderate reformist president, Hassan Rouhani, was re-elected with a solid 57% of the vote. Only candidates vetted by a committee of 12 Islamic clerics were permitted to run.

The authorities in **Bahrain** violently broke up a sit-in by supporters of a prominent Shia cleric. Five people were reported by the government to have been killed, and 286 were arrested.

Eight security officers in **Kenya** were killed near the border with Somalia when the vehicles they were travelling in detonated explosive devices. Al Shabab, a Somali jihadist group, claimed responsibility.

Tedros Adhanom, a former health minister from **Ethiopia**, was elected as the new head of the World Health Organisation. He is the first African to hold the post.

The Democratic Republic of Congo is to test a vaccine in its efforts to contain an outbreak of **Ebola** that has so far killed four people. Around 40 people are suspected to have been infected by the virus.

American gothic

Donald Trump made his first trip abroad as president. He received a warm welcome in Saudi Arabia, where he strongly condemned Iran, the Saudis' arch-rival in the region, and signed a \$110bn arms deal. Israel also embraced Mr

Trump, seeing his visit as a reset in relations following a tetchy eight years during Barack Obama's tenure. Mr Trump's whirlwind tour took him to the Vatican to meet the pope and to Brussels for talks with the EU and NATO.

James Comey, whose sacking by Mr Trump as director of the FBI has sparked a political storm, agreed to testify to Congress. He will give his testimony after meeting Robert Mueller, the special counsel investigating alleged links between the Trump campaign and Russia. But Michael Flynn, Mr Trump's first national-security adviser, invoked the Fifth Amendment when he declined to appear before a Senate committee.

A close election for **Montana's** sole seat in the House of Representatives took an unexpected last-minute twist when Greg Gianforte, the Republican candidate, allegedly "body-slammed" a journalist who asked him a question about health care. Mr Gianforte has been charged with a misdemeanour assault.

A landslide buried a swathe of California's scenic Pacific Coast Highway along **Big Sur**. A 12-mile section of the road will be closed for months.

An unhappy record

Venezuela's chief prosecutor said that 55 people had died in the latest series of protests against the government. About half were killed by government forces. That exceeds the 43 who died in a wave of protests in 2014. One man was set on fire.

Brazil's president, Michel Temer, dropped his request for the supreme court to suspend an investigation into allegations that he obstructed justice. The inquiry is based in part on a tape recording in which the president appears to endorse the payment of hush money to a politician serving jail time. His lawyers want the investigation to continue to clear his name. Federal troops were deployed to Brasília, the capi-

tal, after protesters demanding Mr Temer's resignation set fire to a government building.

Lenín Moreno was sworn in as **Ecuador's** president. He promised to follow the socialist path of his predecessor, Rafael Correa, but also to engage more with the private sector.

Quelling an insurrection

The president of the **Philippines**, Rodrigo Duterte, declared martial law in the southern island of Mindanao following clashes between Islamist separatists and the army. The militants took over schools and burned a church in the city of Marawi. Mr Duterte said they had also beheaded a local police chief.

North Korea conducted its second missile test within a week. The Pukguksong-2 missile flew 500km before falling into the Pacific.

Two gay men each received 83 lashes of the cane in Aceh, a semi-autonomous province in **Indonesia** that enforces Islamic law. It was the first time the punishment had been levelled against homosexuals in the province; people have been caned previously for drinking alcohol and gambling. A cheering crowd watched the beatings.



Supporters of gay rights in **Taiwan** hailed a decision by the constitutional court in favour of same-sex marriage, ruling there was "no rational basis" for it to be banned. The legislature has two years to either legalise gay marriage or introduce civil partnerships. If it does neither, gay couples will be able to wed under the court's ruling.

Business

Following several profit warnings and a 10% slide in its share price this year, **Ford** appointed a new chief executive. Jim Hackett, who ran the carmaker's unit for autonomous vehicles and ride-sharing, replaces Mark Fields, who was CEO for three years. The speed of Mr Fields's departure surprised those who thought he was doing a reasonable job in a fast-changing market. Bill Ford, the chairman, described Mr Hackett as a "visionary" who will steer Ford towards a future of self-driving and electric cars.

A budding flower



Geely, a Chinese carmaker and owner of the Volvo car brand, said it was buying a 51% stake in **Lotus**, a British sports-car manufacturer, as part of a deal through which it will obtain a minority stake in Proton of Malaysia. Geely hopes to harness Lotus's technology. Its Eco Elise project, for example, develops materials that help to lower emissions in its cars.

America's Justice Department stepped up the pressure on **Fiat Chrysler Automobiles** (whose chairman sits on the board of *The Economist's* parent company). The department filed a civil lawsuit accusing the carmaker of not telling regulators that 104,000 diesel cars had been equipped with software which helped vehicles to violate emissions standards. Fiat Chrysler denied any wrongdoing and said it had been working with the Environmental Protection Agency for months to resolve the issue and would defend itself against any claims that it

"engaged in a deliberate scheme" to install the devices.

The Trump administration admitted that it could not legally stop the new "**fiduciary rule**" from coming into force next month. The rule was passed by Barack Obama and requires anyone giving pensions advice to act in the "best interest" of a client. The investment industry believes this will lead to more lawsuits. In February Donald Trump ordered a review.

Euro vision

The European Commission said that **Portugal** was no longer subject to its measures for managing excessive debt, because the country's budget deficit fell to 2% of GDP last year, well below the ceiling of 3% set in the EU's stability and growth pact. Portugal exited its bail-out programme in 2014.

SoftBank announced that it had raised a whopping \$93bn so far for its new **technology-investment fund**. The Japanese conglomerate will base the fund's operations in London, from where it will invest in artificial intelligence, robotics and the "internet of things". One of Saudi Arabia's sovereign-wealth funds pledged up to \$45bn to the venture and a

holding company for the government of Abu Dhabi put in \$15bn. Apple, Qualcomm and other tech giants have also made commitments.

A trial to hear claims that shareholders at **Royal Bank of Scotland** were misled about the state of the bank's finances before a £12bn (\$24bn in 2008) rights issue during the financial crisis was adjourned until next month. The judge delayed the trial because the parties are close to a settlement.

IKEA named a new chief executive. Jesper Brodin is a former assistant to the furniture retailer's founder, Ingvar Kamprad. He will take over a restructured IKEA focusing on sales; the firm's design, supply and production activities were transferred to Inter IKEA Group last August.

Taking markets by surprise, Moody's downgraded **China's sovereign credit-rating** by a notch, contending that the government was proceeding too slowly to rebalance the economy and reduce the build-up of debt. Any far-reaching financial measures in China are unlikely to be announced before a Communist Party Congress later this year. The government says that

Moody's has underestimated its commitment to reform.

Looking for a white knight

Once Asia's biggest trader of commodities, **Noble Group** endured another rocky week, after S&P Global cut its credit rating, which already carried "junk" status, and warned that the company might default on its debt. Its shares plunged by 28% on the Singapore exchange before they were suspended. Noble hopes to find a "strategic partner", which may be its only means of survival.

Glencore, a commodities and mining giant, made an unsolicited offer for **Bunge**, which traces its history back to 1818 and is one of the world's biggest agribusiness concerns.

In the latest move towards consolidation in the chemical industry, **Huntsman**, which is based in Texas, agreed to a \$20bn merger with **Clariant**, a Swiss rival. Huntsman is controlled by a prominent Mormon family (Jon Huntsman junior, a former presidential candidate, is a son of the founder). In 1974 it invented the "clamshell" container for McDonald's Big Macs.

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



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Deep trouble

Humans are wrecking the ocean. Technology shows the scale of the problem—and offers some solutions



EARTH is poorly named. The ocean covers almost three-quarters of the planet. It is divided into five basins: the Pacific, the Atlantic, the Indian, the Arctic and the Southern oceans. Were all the planet's water placed over the United States, it would form a column of liquid 132km tall. The ocean provides 3bn people with almost a fifth of their protein (making fish a bigger source of the stuff than beef). Fishing and aquaculture assure the livelihoods of one in ten of the world's people. Climate and weather systems depend on the temperature patterns of the ocean and its interactions with the atmosphere. If anything ought to be too big to fail, it is the ocean.

Humans have long assumed that the ocean's size allowed them to put anything they wanted into it and to take anything they wanted out. Changing temperatures and chemistry, overfishing and pollution have stressed its ecosystems for decades. The ocean stores more than nine-tenths of the heat trapped on Earth by greenhouse-gas emissions. Coral reefs are suffering as a result; scientists expect almost all corals to be gone by 2050.

By the middle of the century the ocean could contain more plastic than fish by weight. Ground down into tiny pieces, it is eaten by fish and then by people, with uncertain effects on human health. Appetite for fish grows nevertheless: almost 90% of stocks are fished either at or beyond their sustainable limits (see pages 22-24). The ocean nurtures humanity. Humanity treats it with contempt.

Depths plumbed

Such self-destructive behaviour demands explanation. Three reasons for it stand out. One is geography. The bulk of the ocean is beyond the horizon and below the waterline. The damage being done to its health is visible in a few liminal places—the Great Barrier Reef, say, or the oyster farms of Washington state. But for the most part, the sea is out of sight and out of mind. It is telling that there is only a single fleeting reference to the ocean in the Paris agreement on climate change.

A second problem is governance. The ocean is subject to a patchwork of laws and agreements. Enforcement is hard and incentives are often misaligned. Waters outside national jurisdictions—the high seas—are a global commons. Without defined property rights or a community invested in their upkeep, the interests of individual actors in exploiting such areas win out over the collective interest in husbanding them. Fish are particularly tricky because they move. Why observe quotas if you think your neighbour can haul in catches with impunity?

Third, the ocean is a victim of other, bigger processes. The emission of greenhouse gases into the atmosphere is changing the marine environment along with the rest of the planet. The ocean has warmed by 0.7°C since the 19th century, damaging corals and encouraging organisms to migrate towards the poles in search of cooler waters. Greater concentrations of carbon dioxide in the water are making it more acidic. That tends to harm creatures such as crabs and oysters, whose calcium

carbonate shells suffer as marine chemistry alters.

Some of these problems are easier to deal with than others. “Ocean blindness” can be cured by access to information. And indeed, improvements in computing power, satellite imaging and drones are bringing the ocean into better view than ever before. Work is under way to map the sea floor in detail using sonar technology. On the surface, aquatic drones can get to remote, stormy places at a far smaller cost than manned vessels. From above, ocean-colour radiometry is improving understanding of how phytoplankton, simple organisms that support marine food chains, move and thrive. Tiny satellites, weighing 1-10kg, are enhancing scrutiny of fishing vessels.

Transparency can also mitigate the second difficulty, of ocean governance. More scientific data ought to improve the oversight of nascent industries. As sea-floor soundings proliferate, the supervision of deep-sea mining, which is overseen by the International Seabed Authority in areas beyond national jurisdiction, should get better. More data and analysis also make it easier to police existing agreements. Satellite monitoring can provide clues to illegal fishing activity: craft that switch off their tracking devices when they approach a marine protected area excite suspicion, for example. Such data make it easier to enforce codes like the Port State Measures Agreement, which requires foreign vessels to submit to inspections at any port of call and requires port states to share information on any suspected wrongdoing they find.

Clearer information may also help align incentives and allow private capital to reward good behaviour. Insurance firms, for instance, have an incentive to ask for more data on fishing vessels; if ships switch off their tracking systems, the chances of collisions rise, and so do premiums. Greater traceability gives consumers who are concerned about fish a way to press seafood firms into behaving responsibly.

Sunk costs

Thanks to technology, the ocean's expanse and remoteness are becoming less formidable—and less of an excuse for inaction. A UN meeting on the ocean next month in New York is a sign that policymakers are paying more attention to the state of the marine realm. But superior information does not solve the fundamental problem of allocating and enforcing property rights and responsibilities for the high seas. And the effectiveness of incentives to take care of the ocean varies. Commercial pay-offs from giving fish stocks time to recover, for example, are large and well-documented; but the rewards that accrue from removing plastic from the high seas are unclear.

Above all, better measurement of global warming's effect on the ocean does not make a solution any easier. The Paris agreement is the single best hope for protecting the ocean and its resources. But America is not strongly committed to the deal; it may even pull out. And the limits agreed on in Paris will not prevent sea levels from rising and corals from bleaching. Indeed, unless they are drastically strengthened, both problems risk getting much worse. Mankind is increasingly able to see the damage it is doing to the ocean. Whether it can stop it is another question. ■

The Manchester bombing

Almost is never enough

The best answer to a suicide-bomber is the scrupulous, iron-willed application of the law



TERRORISTS often set out to slaughter the innocent. But none could be more innocent than eight-year-old Saffie Rousos, left. She was one of the children, most of them teenagers, who flocked to see Ariana Grande give a concert in Manchester

on May 22nd. After the show, a suicide-bomber detonated a device packed with metal nuts and bolts, injuring over 60 and killing 22, including Saffie. As with the school massacres in Beslan in Russia in 2004 and Peshawar in Pakistan in 2014, the aim was to strike people where they are most vulnerable—as parents and grandparents and uncles and aunts. It succeeded.

For Britain, which had been spared deadly bomb blasts since the attacks in London in 2005, this was proof of how hard it is to foil every plot every time (see page 25). For the world, which suffers attacks continually, it raises once again the question of how to stop people who are determined to kill.

You'll never know

The motives of the bomber, a 22-year-old Libyan Briton called Salman Abedi, may never be clear. Some have suggested that Ms Grande, a confident, sexually liberated woman who inspires teenage girls, stood for everything jihadists despise. When Islamic State (IS) is in retreat in its base in Syria and Iraq, and is struggling in Libya amid civil war and oppression (see page 49), perhaps the attack was a show of strength.

But there is a third possibility. IS has said that it wants to force sympathetic Muslims out of a “greyzone” in which they do not fully embrace the jihadists’ “caliphate” because they still feel loyalty to the country where they live. If so, IS can use extreme violence to provoke an official clampdown and to feed the indiscriminate suspicion of Muslims. With repeated

attacks in France over the past two years and horrific cruelty this week, IS may be trying to trigger an anti-Muslim backlash that it can exploit to drive sympathisers into its arms.

The reaction in Britain to the Manchester bombing is a good way to thwart IS's plans. A ritual has grown up after terrorist attacks that includes vigils, memorials and testimonials. It lets people express their collective grief in a secular society. It also gives Muslim groups a chance to distance themselves in public from jihadists and for other civic leaders to say that the threat from IS does not come from Islam in general. That sends a signal to Muslims and non-Muslims that now, of all times, they must be tolerant. It is precisely what IS does not want to hear.

Yet if IS succeeds in staging repeated attacks in Britain, this consensus will be at risk—as in France, which is under a state of emergency. Even now, some commentators are calling for terrorist suspects to be locked up or electronically tagged. That would be a mistake. To punish suspects who face no criminal charges would illegally single out Muslims from any other group. IS would have precisely the recruiting message it wants.

In the past 20 months the intelligence services have busted at least 12 plots. They are not asking for new powers. The government has put aside money for more staff. With this attack, as any other, there have been mistakes and missed leads. The security services must learn from them.

But the focus should also be on stopping sympathisers being drawn into IS's orbit. In Britain that is the job of Prevent, a government scheme to counter radicalisation of all kinds. Propaganda is scrubbed from social media and counter-propaganda put in its place. Teachers are trained to spot would-be jihadists. Prevent is not perfect. It has been criticised as heavy-handed and vague. But the scheme has cut the numbers of young people going to the Middle East to fight. Now more than ever, when another British-born Muslim has struck his homeland, it needs refining and strengthening. ■

Brazil

The Temer tape

Who is president matters less than the continuation of economic and political reforms



WHEN Michel Temer took over as Brazil's president from Dilma Rousseff, who was impeached last August, no one saw him as a clean break from the grubby past. Members of both his Party of the Brazilian Democratic Movement and Ms

Rousseff's Workers' Party are being investigated or have been convicted in the *Lava Jato* (Car Wash) probes into scandals centred on Petrobras, the state-run energy company. The difference is that Mr Temer, a more adept politician than Ms Rousseff, is pushing through vital economic reforms that she failed

to advance. That is why new accusations of wrongdoing by the president are unsurprising but bad for Brazil.

It is unclear whether Mr Temer has committed any crimes. The new allegations come from Joesley Batista, a meat mogul, who was being pursued by prosecutors in several corruption cases (see page 43). Angling for a plea bargain, Mr Batista wired himself up for a late-night meeting with the president. He has produced a tape in which Mr Temer appears to endorse the payment of hush money to a convicted politician and to hear without objection Mr Batista's tales of obstructing justice. In separate testimony a subordinate claimed that Mr Temer had received bribes; a confidant of Mr Temer was filmed with a bag stuffed with 500,000 reais (\$153,000). ▶▶

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It is too soon to demand Mr Temer's resignation. He insists that the tape was doctored. In return for incriminating the president, Mr Batista was let off with a fine of 110m reais, which still leaves him a billionaire. Mr Temer proclaims his innocence and demands that the supreme court, which oversees investigations of politicians, should complete its inquiries rapidly.

But the allegations have already wounded his presidency and the country. Since word of Mr Batista's tape came out the stockmarket has fallen by 7%. For all his flaws, Mr Temer was making progress on reforms that Brazil desperately needs. The economy is beginning to recover from its worst recession on record; inflation and interest rates are falling. Mr Temer is encouraging recovery by reforming the pension system, which will otherwise crush the economy with debt. He is trying to liberalise labour laws modelled on those of Benito Mussolini. *Lava Jato's* latest blast will delay the reforms, if not wreck them.

If he stays, Mr Temer will have a much harder time getting them through congress. But his departure—which could happen through resignation, impeachment or a decision by the

electoral tribunal to annul the latest election for having been financed with illicit money—might not solve the problem. Barring a new poll, which can happen only through a constitutional amendment, his successor would be appointed by congress. Many of its prominent members are under investigation. It will not be easy to fill the presidency with a top-tier politician who is untainted and commands public support.

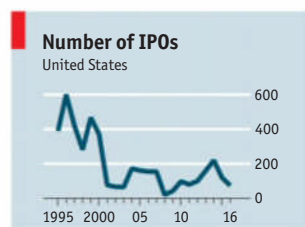
Augean, but not stable

Whether Mr Temer stays or goes, the best that Brazil can hope for now is a weak president who can finish what he started in the remainder of the current mandate, which runs to the end of next year. In addition to the pension and labour measures, this would include a start on political reform, which could result in the election of less corrupt politicians in 2018. A national vote threshold, for example, would stop rent-a-parties from entering congress. Brazil is going through a wrenching political and economic renewal. Its leaders, however enfeebled by scandal, must persevere with that vital work. ■

Tech unicorns

Not the enemy

Startups can stay private for longer. That doesn't mean they should



THE public markets in America are much less crowded than they once were. Twenty years ago America was home to 8,000 listed domestic firms; now the total is close to 4,000. In 2016, 74 firms made their stockmarket debut, compared with

600 two decades ago. This winnowing is unwelcome. Merger activity, which reduces the number of listed firms, is damaging competition. Overregulation, which deters younger firms from floating, deprives ordinary investors of opportunities to benefit from America's corporate successes.

Less obvious is why the firms themselves, or their investors, should care. Companies that once had to go public to raise capital can happily fund themselves in private markets with money from sovereign-wealth funds and institutional investors. Unicorns, privately held tech startups with valuations exceeding \$1bn, are common. Cash keeps pouring into the industry. This week Saudi Arabia promised up to \$45bn to a \$93bn technology fund run by SoftBank, a Japanese technology conglomerate (see page 63). Given a choice between red tape and freedom of manoeuvre, between quarterly earnings calls and long-term strategy, wouldn't anyone in their right mind steer clear of the public markets? Actually, no.

Take the argument that staying private lets unicorns operate more freely. The transparency that accompanies a public listing has its own benefits. Closer oversight might have more quickly rooted out problems at Theranos, a blood-testing startup whose \$9bn valuation crumbled because of defects in its products. The rigmarole of public filings and quarterly calls might inject more sobriety into the brash culture of Uber, a ride-hailing firm. Astute startups like Slack, an online messaging firm, and Airbnb, a home-sharing site (see page 61), have deliberately taken on some of the accoutrements of listed

firms, from regular audits to respected CFOs.

As for the costs saved by staying private, some are being transferred from firms to investors. Public companies bear the expense of the detailed reporting and formal governance processes needed to keep outside investors in touch. Unicorns may be under a weaker spotlight, but their investors still carry out due diligence and market valuations, which they pay for themselves. The savings of private ownership can be illusory.

Even if the public and private markets are converging, clear differences remain. Private markets are developing new ways for startups' employees, the most valuable resource in techland, to cash in their shares. But public markets are far more liquid: that is one reason why Spotify, a music-streaming unicorn, is flirting with the idea of a direct listing, whereby a firm gets a ticker without raising any new capital.

Private markets have slowly opened up to a wider pool of investors, mutual funds among them. But the inclusive nature of public markets offers better protection against reputational damage. That is because technology firms are changing the way societies and economies work. For firms that are at the centre of public-policy debates, a broad base of shareholders, able both to benefit from firms' success and to question their activities, looks better than one dominated by plutocrats.

Stock answers

Public markets are also behaving more like private ones, by enabling founders to retain an iron grip even when they list. Snap, the parent company of Snapchat, sold shares in March but gave up no voting rights. That bothers advocates of shareholder democracy. But it weakens an argument entrepreneurs often make against floating (even as investors acquire a useful ability to divest positions easily or to sell shares short).

Public markets are not perfect. But for unicorns to think of them as somewhere to steer clear of for as long as possible is wrong-headed. That is even truer of their investors. ■



She's a fan.



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Reforming prisons

Jail break

America's approach to incarceration is an expensive failure. It does not have to be this way



SHIRLEY SCHMITT is no one's idea of a dangerous criminal. She lived quietly on a farm in Iowa, raising horses and a daughter, until her husband died in 2006. Depressed and suffering from chronic pain, she started using methamphetamine. Unable to afford her habit, she and a group of friends started to make the drug, for their own personal use. She was arrested in 2012, underwent drug treatment, and has been sober ever since. She has never sold drugs for profit, but federal mandatory minimum rules, along with previous convictions for drug possession and livestock neglect, forced the judge to sentence her to ten years in prison. Each year she serves will cost taxpayers roughly \$30,000—enough to pay the fees for three struggling students at the University of Iowa. When she gets out she could be old enough to draw a pension.

Barack Obama tried to reduce the number of absurdly long prison sentences in America. His attorney-general, Eric Holder, told federal prosecutors to avoid seeking the maximum penalties for non-violent drug offenders. This reform caused a modest reduction in the number of federal prisoners (who are about 10% of the total). Donald Trump's attorney-general, Jeff Sessions, has just torn it up. This month he ordered prosecutors to aim for the harshest punishments the law allows, calling his new crusade against drug dealers "moral and just". It is neither.

More is not always better

Prisons are an essential tool to keep society safe. A burglar who is locked up cannot break into your home. A mugger may leave you alone if he thinks that robbing you means jail. Without the threat of a cell to keep them in check, the strong and selfish would prey on the weak, as they do in countries where the state is too feeble to run a proper justice system.

But as with many good things, more is not always better (see page 57). The first people any rational society locks up are the most dangerous criminals, such as murderers and rapists. The more people a country imprisons, the less dangerous each additional prisoner is likely to be. At some point, the costs of incarceration start to outweigh the benefits. Prisons are expensive—cells must be built, guards hired, prisoners fed. The inmate, while confined, is unlikely to work, support his family or pay tax. Money spent on prisons cannot be spent on other things that might reduce crime more, such as hiring extra police or improving pre-school in rough neighbourhoods. And—crucially—locking up minor offenders can make them more dangerous, since they learn felonious habits from the hard cases they meet inside.

America passed the point of negative returns long ago. Its incarceration rate rose fivefold between 1970 and 2008. Relative to its population, it now locks up seven times as many people as France, 11 times as many as the Netherlands and 15 times as many as Japan. It imprisons people for things that should not be crimes (drug possession, prostitution, unintentionally violating incomprehensible regulations) and imposes breath-

takingly harsh penalties for minor offences. Under "three strikes" rules, petty thieves have been jailed for life.

A ten-year sentence costs ten times as much as a one-year sentence, but is nowhere near ten times as effective a deterrent. Criminals do not think ten years into the future. If they did, they would take up some other line of work. One study found that each extra year in prison raises the risk of reoffending by six percentage points. Also, because mass incarceration breaks up families and renders many ex-convicts unemployable, it has raised the American poverty rate by an estimated 20%. Many states, including Mr Sessions's home, Alabama, have decided that enough is enough. Between 2010 and 2015 America's incarceration rate fell by 8%. Far from leading to a surge in crime, this was accompanied by a 15% drop.

America is an outlier, but plenty of countries fail to use prison intelligently. There is ample evidence of what works. Reserve prison for the worst offenders. Divert the less scary ones to drug treatment, community service and other penalties that do not mean severing ties with work, family and normality. A good place to start would be with most of the 2.6m prisoners in the world—a quarter of the total—who are still awaiting trial. For a fraction of the cost of locking them up, they could be fitted with GPS-enabled ankle bracelets that monitor where they are and whether they are taking drugs.

Tagging can also be used as an alternative to locking up convicts—a "prison without walls", to quote Mark Kleiman of New York University, who estimates that as many as half of America's prisoners could usefully be released and tagged. A study in Argentina finds that low-risk prisoners who are tagged instead of being incarcerated are less likely to reoffend, probably because they remain among normal folk instead of sitting idly in a cage with sociopaths.

Justice systems could do far more to rehabilitate prisoners, too. Cognitive behavioural therapy—counselling prisoners on how to avoid the places, people and situations that prompt them to commit crimes—can reduce recidivism by 10-30%, and is especially useful in dealing with young offenders. It is also cheap—a rounding error in the \$80 billion a year that America spends on incarceration and probation. Yet, by one estimate, only 5% of American prisoners have access to it.

The road to rehabilitation

Ex-convicts who find a job and a place to stay are less likely to return to crime. In Norway prisoners can start their new jobs 18 months before they are released. In America there are 27,000 state licensing rules keeping felons out of jobs such as barber and roofer. Norway has a lower recidivism rate than America, despite locking up only its worst criminals, who are more likely to reoffend. Some American states, meanwhile, do much better than others. Oregon, which insists that programmes to reform felons are measured for effectiveness, has a recidivism rate less than half as high as California's. Appeals to make prisons more humane often fall on deaf ears; voters detest criminals. But they detest crime more, so politicians should not be afraid to embrace proven ways to make prison less of a school of crime and more of a path back to productive citizenship. ■

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Data driven

You are right to focus on the role of data as the central reason for the growing power of the internet giants (“The world’s most valuable resource”, May 6th). Part of the reason for this is the lax attitude in America on data protection. This has allowed not only huge concentrations of economic power (now transformed into political power) but also rocketing levels of data breaches, financial fraud and identity theft.

Giant companies capture markets in the internet economy through non-price mechanisms. Value is found not in the sale of a product to a customer, but the extraction of personal data from the individual and its repurposing for advertising. There is little internet users can do to make meaningful choices. They are the commodity. Markets, in the traditional sense, do not exist.

But your proposal to share data more widely seems flawed. Startups would be handicapped by the advantages of scale held by the internet incumbents. And more data means more data breaches and more financial fraud. A better way would be to minimise data collection and diminish the advantages of the data giants. Meaningful data protection in the United States should be a top priority for those concerned not only about privacy, but also economic competition.

MARC ROTENBERG
President
Electronic Privacy Information
Centre
Washington, DC

Global surveys tell us that consumers do not understand how their data is collected and used, so the idea that they can drive competition in the digital world doesn’t really add up. Consumers are hampered by a lack of understandable, comparable information and by difficulties transferring their data or content. There is clearly a need for better data portability, meaningful transparency and new intermediary services, but we need more work

to ensure that these ideas offer consumers real choice.

AMANDA LONG
Director-general
Consumers International
London

We will maximise economic gain if we move towards more openly shared data under appropriate ethical frameworks, rather than competing data silos. Think of data as an open public good rather than a private asset. This increases innovation and reduces the transaction costs associated with trading data. It encourages competition in algorithms and services rather than silos and hoarding.

Data is not the new oil. It is the new light. It is most valuable when open and shared.

MARK PARSONS
Secretary-general
Research Data Alliance
Boulder, Colorado

Property rights are fundamental to the exchange of value through trade. In the physical world we have long-established means of determining ownership of assets. During the first 20 years of the digital economy it has been difficult to assign and protect ownership of digital assets to people. A commonly recognised digital identity infrastructure is required if fair value distribution is to be achieved. In its recent report, “Principles on Identification”, the World Bank proposed a framework that would be a good starting point.

DAVID RENNIE
Windsor, Berkshire

A macrocosm of Macron

You said of Emmanuel Macron’s victory in France, that if you count abstentions, blank ballots and votes cast to keep Marine Le Pen out, “only a fifth of the electorate positively embraced his brand of new politics” (“Macron’s mission, May 13th). But as this was an election with two rounds, your comment could be true of every presidential ballot in the Fifth Republic. In the past there have always been people voting for the elected president

mainly to keep the other candidate out. Based on his support from total registered voters, Mr Macron has been “better” elected than Valéry Giscard d’Estaing in 1974 and François Mitterrand in 1988.

Mr Macron’s true vulnerability does not come from the number of people who voted for him but from the fact that within a context of political polarisation (around immigration and globalisation) his majority is heterogeneous. And as you pointed out, he lacks the support of an established party machine.

PHILIPPE ALTUZARRA
Paris

Populist but capable

I read with interest Charlemagne’s take on populist nationalism in Poland (April 29th). Black-and-white snapshots can make a pretty picture, but they also distort reality. For example, Poland’s economy will grow at close to 4% this year. The budget deficit is under control, monetary policy is made responsibly and unemployment, at around 5%, is the lowest on record. The government has improved tax compliance, lifted the minimum wage and introduced a new child cash transfer, which has reduced inequality and almost eliminated extreme poverty.

Jaroslaw Kaczynski, the de facto head of state, may have contempt for institutions, is anti-European and disregards the two-thirds of Poles who do not support him. But his “populist” economic policies are the ones that the global liberal elites talk a lot about, but do little to implement.

MARCIN PIATKOWSKI
Cambridge, Massachusetts

In her wobbly week...

Theresa May’s endlessly repeated mantra is that she provides Britain with “strong and stable” leadership (Bagehot, May 6th). Strong and stable are characteristics I would welcome in a chair or a bookcase.

For someone leading this country into complex Brexit

negotiations I would prefer flexibility, insight, intelligence and knowledge.

CHRIS PEARCE
Bristol

A small pool

“Silicon pally” (April 15th) made a strong point about the pervasiveness of sexism in the tech industry. But if, as your article states, only 18% of bachelor degrees in computer sciences are awarded to women, then it hardly seems just to condemn the industry on the ground that it is mostly male.

PIETRO VALENTINO CALCAGNI
Zurich

I’m Henry the Eighth I am



I think Donald Trump might summon your comparison of him to Henry VIII as evidence of a witch-hunt (“Courting trouble”, May 13th). There are differences. King Donald has a Congress to oversee his decisions, whereas Henry Tudor ruled by divine right. Mr Trump’s second wife did not give him cause to behead her. Nor is it conceivable that the irreligious Donald I will expel the pope’s Catholic church.

Perhaps a better comparison, and of greater concern in these centenary years remembering the first world war, would be a reincarnation of Kaiser Wilhelm Trump, blundering us all into another war “to end all wars”.

COLIN LONDON
Canberra, Australia ■

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E-mail: letters@economist.com
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FINANCING AFRICA'S INFRASTRUCTURE
POUR LES INFRASTRUCTURES EN AFRIQUE

Africa50 is a specialized international financial institution created at the initiative of the African Development Bank (AfDB) and capitalized so far by the AfDB, 23 African countries and two African Central Banks. Subsequent funding is expected to come from African countries that are not yet investors in Africa50, but also from non-sovereign investors both in Africa and outside Africa. Africa50 aims to help accelerate infrastructure development in Africa leveraging the strong support of its government shareholders and the AfDB and has a mandate to operate commercially. Africa50's committed capitalization is expected to reach \$1 billion in the next few months. The target is to raise \$3 billion over the medium term to invest in commercially viable infrastructure projects across Africa. Africa50 has its headquarters in Casablanca.

It enjoys all immunities and privileges recognized to International Financial Institutions.

Chief Financial Officer

Africa50 is seeking a Chief Financial Officer ("CFO"), who will be a key member of the Senior Leadership Team. The CFO supervises the finance unit and is the chief financial spokesperson for the organization. The CFO reports directly to the CEO and assists the Chief Operating Officer (COO) on all strategic and tactical matters.

The ideal candidate will have strong experience in supervising the financial activities of a fund or a finance unit of a major investment vehicle and in being the chief financial spokesperson for the organization, bringing strong expertise in budget management, cost benefit analysis, forecasting needs and in securing sufficient corporate funding, ideally both from public and private sectors.

General Counsel

Africa50 is seeking a General Counsel, who will be a key member of the Senior Leadership Team. The General Counsel will protect the interest of Africa50 from legal liability and, as necessary, provide legal defense in cases against or by Africa50. The General Counsel reports directly to the CEO and will provide legal support, advice and services to the Board, to the Senior Leadership Team, as well as to the investment team of Africa50.

The ideal candidate will have a strong experience directing the legal and compliance activities of a fund or financial institution, including ensuring that the business is in compliance with all legal and regulatory requirements.

These roles report to the CEO and require a minimum of 15 years of proven leadership and relevant experience; an advanced degree in a related field of study or a relevant bachelor degree with considerable experience in senior management levels in public/private/multilateral sectors is also required. Fluency in English and/or French is required.

Russell Reynolds Associates are assisting Africa50 with this appointment. For further information about any of these roles and details of how to apply, please visit Russell Reynolds Associates website at www.rraresponses.com. The closing date for applications is 18 June 2017.



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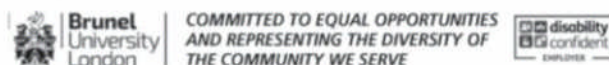
- Senior Lecturer in Financial Management** Ref: IAG0061-1
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Working for a World Free of Poverty



All the fish in the sea

PLYMOUTH

Better fishing practices could yet save blighted stocks. But managers must balance commercial concerns with changing environmental conditions

EVEN the names at Sutton Harbour give it away. While the pleasure boats, including *Windfall* and *Felicity*, gleam in the sunshine, the light warms rust on the decks of craft such as *Pisces*. The fishing industry is struggling to stay afloat in Plymouth, a port in Devon. Locals grumble about regulation, fuel costs and the dearth of crew. Revenues are stagnant and the facilities ageing. But if times are tough for the fishers, they may be tougher for the fish.

The world currently consumes more fish per person than ever before—about 20 kilos a year. But almost all the recent gains in production have been down to farmed fish. Aquaculture has grown remarkably in the past decades, especially in China; in 2014 it accounted for half of all the fish people ate. But that does not mean that the pressure on the open seas has eased.

In 2013, the most recent year for which full data are available, 32% of the world's fish stocks were being exploited beyond their sustainable limit, up from 10% in the 1970s, according to the UN's Food and Agriculture Organisation. The amount of fish caught at sea has been pretty much flat for the past three decades, but the share of the world's fish stocks that are being plundered unsustainably has continued to increase (see chart 1 on next page).

Overfishing is not the only problem. Pollution, notably fertiliser run-off, dam-

ages a lot of marine ecosystems. There are estimated to be 5trn bits of plastic in the ocean, with over 8m tonnes of the stuff added every year. By the middle of the century the sea could contain more plastic than fish by weight, according to research done for the Ellen MacArthur Foundation.

Not all the harm comes directly from the land; some comes via the sky. Carbon dioxide accumulating in the atmosphere has so far raised the world's average sea-surface temperature by about 0.7°C. This has effects at depth; when seas warm up they become more stratified, making it harder for nutrients in the waters below to rise to where they are most needed by fish and plankton. Given this, it might seem fortunate that the ocean absorbs a fair bit of that carbon dioxide, thus reducing the warming. But doing so changes the ocean's chemistry, making it more acidic. This is a particular problem for creatures with calcium-carbonate shells—which includes not just crabs and oysters but quite a lot of larvae, too. Acidification makes carbonates more likely to dissolve.

It is hard to grasp the scale of such planetary changes, and impossible to say how much damage they will do. That is the way of things with the ocean; it is vast and human horizons are close. That something so immense could be put at risk just by people leading their daily lives seems inconceiv-

able. But as with the atmosphere and the surface of the continents—where humans now move more sediments than the natural processes of erosion—the fact that something is vast does not mean humans cannot have profound impacts on it.

For the sake of the hundreds of millions of people who depend on the ocean for livelihoods or sustenance, as well as for the sake of the ocean itself, these human impacts need to be reined in. There are signs that, where fishing is concerned, this may be coming about, not least because monitoring what goes on over the horizon is becoming ever easier. But there is a great deal left to do.

Losing Nemo

Overfishing is bad for fish; it is also, in the long run, bad for those seeking to catch them. The goal of sound management is to have a stock that is harvested at the same rate that it replenishes itself—which might typically be a stock about half the size of what would be there if there were no fishing at all. If fishers take more than this “maximum sustainable yield”—as they do in many fisheries today—then in the long run they will get less out of the resource than they could, quite possibly imperilling its future. If stocks were allowed to rise back up far enough for the world's fisheries to reach their maximum sustainable yield, the industry would increase production by 16.5m tonnes—about a fifth of the current total—and bring in an extra \$32bn a year.

Good management could in principle get the stocks back up through the use of quotas, property rights and other constraints on untrammelled exploitation. Quotas and similar controls have worked well in some cases. In American waters ►►

▶ 16% of stocks were overfished in 2015, down from 25% in 2000. But they have drawbacks. Because they want to land the largest fish they can find, fishers throw back undersized specimens, which often die as a result. And because fish mix, species caught by accident are thrown back if a fisher has no quota for them.

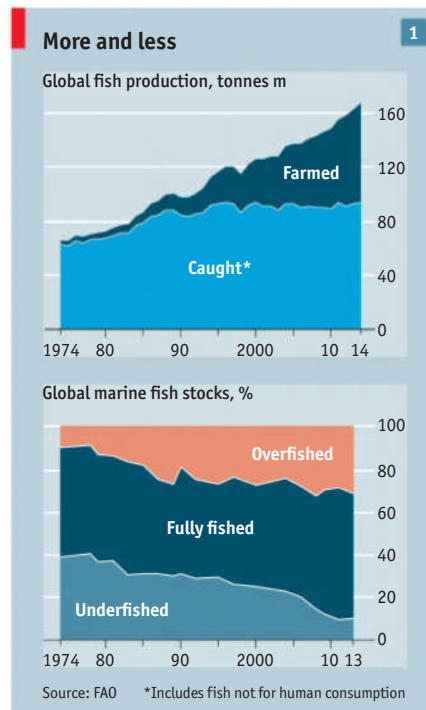
Quotas are also often badly set. Regulators and politicians pander too much to powerful fishing interests, according to Rainer Froese of the Helmholtz Centre for Ocean Research in Kiel, Germany. Lobbies, which often benefit from the importance of fishing to specific places, push for short-term profit over long-term sustainability. “They harvest the apples by cutting the tree branches,” says Mr Froese.

The problem is exacerbated by a lack of evidence, which makes overly permissive quota-setting easier. More investment in research and monitoring could help. But in developing countries, where the need is often dire, there are frequently no resources to meet that need, and in many rich countries fishing is not a big enough industry to make such research a national priority. “We are not good value for the taxpayer, but how can you have an island nation without a fishing fleet?” asks Pete Bromley, a former fisherman who is now master of Sutton Harbour.

Aquaculture boosters might answer that fleets are simply no longer needed. But farmed fish, particularly salmon and their ilk, are fed on smaller fish that themselves are caught at sea. Insects or algae might provide alternative fodder, but the companies involved are slow to embrace such novelties, according to AriJadwin of AquaSelect, which provides advice to Chinese fish farms. One issue, he says, is that Chinese consumers are not moved by sustainability arguments. But he thinks that concerns over food safety will lead to better practices in the long run.

Those struggling to make money from early mornings in stormy seas worry more about business in the next year than in the next fifty. “Climate change isn’t happening next month. At the moment we’ve got to hang on to what we’ve got,” says Mr Bromley. But worrying trends are already visible. As equatorial seas warm up, many plankton species are extending their range towards the poles by hundreds of kilometres a decade; where they lead, fish will follow.

Moving somewhere cooler might seem a simple thing; but temperature is not all that matters to fish, and so there can be trade-offs involved. The flounders off the coast of Britain like water that is both relatively shallow and fairly cool, says Martin Genner from the University of Bristol. With water temperatures around the south of the country 1.5°C higher than they used to be, the flounders have headed north—but there the waters are deeper, which suits them less well. Fish may also need



particular types of food at particular times in their life cycles, such as when their larvae hatch. If predators and prey respond to warming by heading to different places, or by speeding up or slowing down their breeding at different paces, such needs will go unmet. But how much, and where, food webs will be thus disrupted is hard to say. Few of the models seeking to predict how climate change will affect fish consider ecological interactions between species.

Fixed assets

Not everything in the sea can move to waters new with the flick of a fin. Coral reefs, for example, are rather stuck. Although they cover less than a thousandth of the world’s sea floors, they support a quarter of known marine species—and through them millions of people who rely on fish-

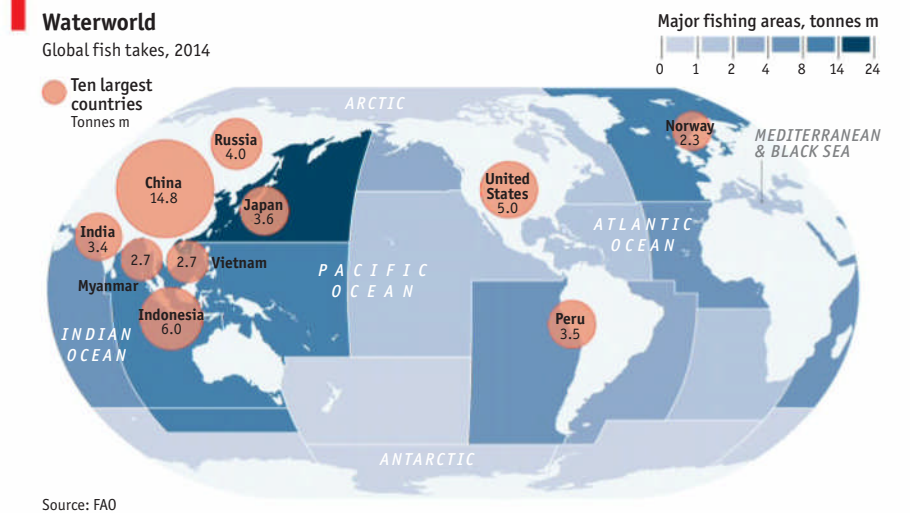
ing and tourism for their livelihoods. As oceans warm, corals risk “bleaching”—losing their colourful algal symbionts—because the algae involved can only survive in a slim range of temperatures. Without their algae, which photosynthesise, the corals lose their source of energy.

There have been three global bleaching episodes since 1998, worsened by El Niño events that heat up the tropical Pacific. The one that started in 2014, and is still going on, has been the longest and most damaging; more than 70% of the world’s coral reefs have been harmed by it. Australia’s Great Barrier Reef, worth \$4.6bn each year to nearby Queensland alone, has been particularly badly affected. “Five or ten years ago, most of the discussion about coral reefs was over how they would look by the end of century,” says Rusty Brainard, a coral expert at America’s National Oceanic and Atmospheric Administration. “Now the talk is of whether coral reefs will survive as we know them to 2050 or even 2030.”

Acidification makes the picture worse. Though it is hard to distinguish the effects of chemistry from the other problems that beset reefs, it seems a fair bet that an environment where calcium carbonate is more likely to dissolve will not be good for them. A study published last year by researchers at the Carnegie Institution for Science made the point clearly by running de-acidified water over a reef; the corals perked up nicely. Doing the same for all the world’s reefs, though, is hardly an option.

Faced with chronic problems and hard-to-quantify future crises, the sea’s resources need to be looked after better by all those—countries, consumers, companies and fishers—with a stake in their survival.

Much of that needs to be done in national jurisdictions. Though overfishing means that many fleets now head farther from home than before, about 90% of the catch is from the “exclusive economic zones” (EEZs) that countries are entitled to ▶▶



claim out to as far as 200 nautical miles (370km) from their shores. What counts as a shore, and a claim, though, can be disputed: China's assertion of fishing rights in the South China Sea, which contains a tenth of the global fish catch, sets its neighbours on edge (though it is hardly the only thing that does). Russia, America and other Arctic states argue over new access to fish stocks in the melting north.

Though what goes on in EEZs is largely a sovereign matter, there are some levers available to outsiders. The World Trade Organisation (WTO) hopes to introduce new rules on fishing subsidies at its next ministerial jamboree in December. These come to \$30bn a year, with seven in every ten dollars handed out by comfortably-off countries. The WTO first started discussions on fishing subsidies back in 2001; Pascal Lamy, formerly its director-general, says a great deal of effort has gone into working out which subsidies are contributing to harmful fishing practices. The reckoning now is about 60% of them do so.

China, which gets far more fish from its EEZ than any other country does from theirs (as well as fishing, by agreement, the EEZs of other countries), seems open to action on subsidies if some unrelated anti-dumping measures are loosened. But how to bring poor countries on board remains a thorny issue. Although coastal African states want change, many inland ones fret over the higher cost of fish. "The whole point is to make fish more expensive," explains Mr Lamy, "so as to internalise the cost of environmental depletion." Sensible stewardship, but not necessarily an easy sell in countries where fish from elsewhere are a cheap source of protein for the poor.

Establishing more protected areas both within EEZs and on the high seas beyond would be another way to help, particularly if they were to contain "no-take" zones where fishing is completely barred. Such zones provide breathing spaces, or breeding spaces, in which stocks can recover. Crow White from California Polytechnic State University and Christopher Costello from the University of California, Santa Barbara have calculated that if such an approach was taken to its extreme and the high seas were closed to fishing, then yields elsewhere could rise by 30%, with fisheries' profits doubling because fish closer to shore become cheaper to catch.

The countries that dominate fishing in international waters (see chart 2) would never stomach such a ban; they prefer the often inadequate regulation offered by regional fisheries-management organisations. But even in these regimes, temporary and rolling closures have been tested. In the Antarctic permanent ones have proved successful.

Spotting boats that misbehave on the high seas (or indeed in EEZs) is getting easier. The International Maritime Organisa-



tion (IMO) requires ships over 300 tonnes to have an Automatic Identification System (AIS), a radio transmitter which tells anyone in the vicinity the boat's position, speed and identity so as to avoid collisions. "In the vicinity", though, now includes "up above"; various satellites can use AIS transmissions to track ships. Spire, an American startup, is building up a constellation of tiny spacecraft with which it hopes to log 10m AIS transmissions every day by the end of this year.

Global Fishing Watch, an online platform created by Google, Oceana, a marine charity, and Sky Truth, which uses satellite data to further environmental causes, is a keen user of AIS transmissions. They do not just let it locate fishing vessels; they let it take a good guess as to what they are doing (boats long-lining for tuna, for example, zigzag distinctively). The platform currently follows 60,000 vessels responsible for 50-60% of the world's catch, according to Brian Sullivan from Google. Indonesia is planning to use the platform to make public data that it gathers through "vessel monitoring systems"—information which can reveal more about what is actually happening on-board than AIS location data do, and as a result is often jealously guarded. The more other countries follow suit, the better the picture will be.

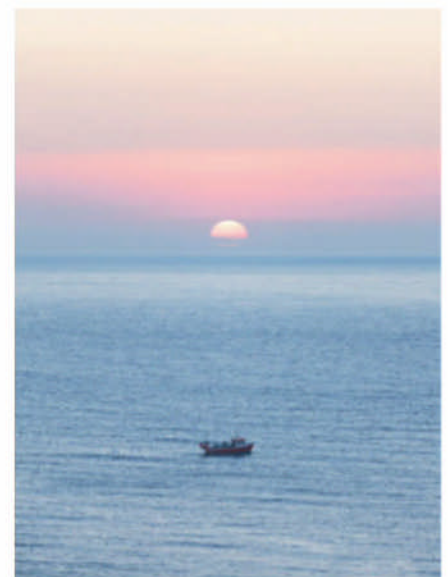
The Port State Measures Agreement, which came into force in 2016, means that if such monitoring leads a country to suspect that a foreign vessel is doing something dodgy, it does not have to go out and inspect it in order to take action. The agreement's clever construction means that poor countries without much by way of navy or coastguard can deny a suspicious foreign vessel entry to their ports and pass its details on to other countries that might have the wherewithal to check it out.

Companies can act, as well as countries. Food suppliers and retailers such as

Costco, Sodexo and Walmart are trying to combat poor fishing practices through a body called the Seafood Task Force. The idea is to ensure that supply chains are what they purport to be and that labour conditions in the industry are up to snuff with an eye to fixing problems before they become scandals. And insurers are interested in the sort of monitoring Global Fisheries Watch does: ships that turn their AIS off increase the risk of collisions; they may attract bigger premiums or have their policies revoked.

Investors currently have little information on how their choice of investment affects marine life. Fish Tracker, a not-for-profit firm, aims to put that right. It is looking at the risks posed by unsustainable fishing in the same way that climate activists have studied the risks of fossil-fuel investments in order to warn off investors. Mark Campanale, the initiative's founder, says that at the most basic level investors need to understand that if one boat catches one fish, ten boats will not catch ten. To that end the outfit is analysing information covering 300 fishing companies with a market capitalisation of \$530bn to calculate the unacknowledged downsides imposed by environmental limits.

None of this can drive change effectively, though, without the support of fishers. Including them in the design of regulatory regimes can bolster scientific analysis and reduce political tensions; by bringing them into the process it also deepens their understanding of sustainable practice. "It would be unacceptable for farmers to go through an educational system without understanding crop yields and the need to manage the land for future generations," says Jim Masters of Fishing into the Future, a charity. "But there are no equivalent opportunities for fishermen." For the sake of the fish, there should be. ■



Big ocean, big impact



Also in this section

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Our election blog can be found at:
Economist.com/blogs/speakerscorner

Terrorism

After the bomb, the hunt

MANCHESTER

Security services race to find the killer's accomplices before they strike again

“WE WON’T take defeat and we don’t want your pity,” roared Tony Walsh, a local poet, at a vigil in Manchester on May 23rd for the 22 people, some of them children, who were murdered in a suicide-bomb attack in the city the previous evening. Muslim charities were present as Sikhs gave out free drinks to the crowd, whose members held placards with slogans such as “Hate does not resolve Hate”. It was a conscious display of unity in the face of Britain’s deadliest terrorist attack since July 7th 2005.

As Mancunians took to the streets, counter-terrorism officers were unpicking the origins of the plot. Lately they have worried about self-radicalised “lone wolf” attackers. In March Khalid Masood, a British convert to Islam, murdered five people in Westminster using only a rental car and a kitchen knife. But it seems that Salman Abedi, a British-born 22-year-old of Libyan stock who detonated the bomb at the Manchester Arena, was not acting alone.

That prompted Theresa May to raise the terrorist threat assessment to its highest, “critical” level for the first time in ten years, indicating that an attack may be “imminent”. The prime minister’s announcement triggered the deployment of nearly 1,000 troops, whose job is to secure sites such as the Houses of Parliament and thus free up police. Amber Rudd, the home secretary, said the measure was temporary and would be kept under “constant re-

view”. Britain does not want to go down the same road as France, which imposed a state of emergency after terrorist attacks in Paris in November 2015 and has been stuck with it ever since. This week the new president, Emmanuel Macron, called for it to be extended for a further six months.

Mrs May cited “a possibility we cannot ignore that there is a wider group of individuals linked to this attack.” By May 25th eight men had been arrested in Britain, including Mr Abedi’s elder brother, Ismael. His younger brother, Hashem, and father, Ramadan, were detained in Libya by a local militia on May 24th. Mr Abedi himself had recently returned from Libya, where he may have been trained by jihadist groups linked to Islamic State (IS) or al-Qaeda (see page 49). He was also reported-

ly in Germany days before the attack.

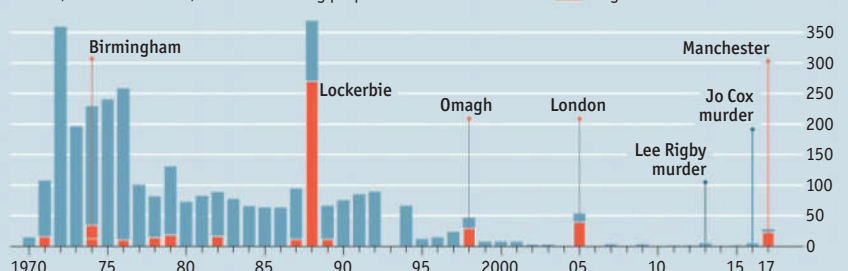
Police in Manchester have concluded that the explosive device he used was the design of a skilled bomb-maker, too valuable to expend on a suicide mission. It had a back-up means of detonation and seems to have been similar in design to those used by two IS-inspired suicide-bombers in Brussels last year.

That much is known because photographs of the bomb’s bloodied fragments were leaked to the *New York Times*, presumably by American intelligence services. They were published hours after Ms Rudd had criticised the “irritating” leak of Mr Abedi’s identity by American officials. Manchester police have reportedly suspended their sharing of information with American counterparts. Mrs May was due to confront Donald Trump about the matter at a NATO meeting on May 25th. He may use the affair to bolster his own critique of his intelligence service’s leakiness.

Mr Abedi may also have received instructions about which event to attack. The selection of a pop concert has echoes of the Bataclan massacre in Paris. It has become standard for IS to target large venues hosting events that symbolise what it regards as

Context to the killing

Britain, terrorist attacks, deaths excluding perpetrators



Sources: Global Terrorism Database, University of Maryland; press reports

▶ Western decadence. In a statement claiming responsibility, it referred to “the shameless concert arena” and described the teenage fans of Ariana Grande as “Crusaders”.

Ms Rudd has said that Mr Abedi was known “up to a point” by MI5, the domestic security service. His friends reportedly warned the authorities about him five years ago; a relative is said to have repeated the concerns. But like Masood, the Westminster killer, he had been regarded as a low-risk, peripheral figure.

Some will question why he was allowed to travel to Libya. Under rules introduced in 2013, a person’s passport can be confiscated on the basis of their “past, present or proposed activities, actual or suspected”. It is a power that Mrs May, home secretary at the time, said should be used sparingly. The reason it was not used in this instance owes more to the difficulty MI5 has in keeping tabs on up to 3,000 people whom it regards as religious extremists.

The security services are well funded (18 months ago they received the money to take on 1,900 employees, a 15% increase in staffing). But 24-hour surveillance is so labour-intensive that only about 10% of the 500 suspects of real concern can be constantly monitored. Even then, there are strict rules about how long such an operation can be conducted if it yields nothing.

Terrorism in Britain is less deadly than in the decades when the Irish Republican Army (IRA) was active (see chart on previous page). Still, in the 18 months to March this year at least 12 terrorist plots were disrupted, according to Dominic Grieve, who chairs the parliamentary Intelligence and Security Committee. More have followed.

Counter-terrorism officers have long worried about the danger posed by Britons returning from Syria, where about 800 went to wage *jihad*. Many have been killed, but about half are estimated to have returned. If the quickening tempo of plots is any indication, some are trained and hardened fighters with the skills and motivation to carry out attacks at home.

There is no evidence yet that the Manchester attack was timed to disrupt the election on June 8th. Britain has no big far-right party that might benefit from a backlash against Muslims. The clownish English Defence League staged a small demonstration near the Manchester Arena, but its members were shouted down by an angry shopper and moved on by police.

That is not to say there will be no impact on the election. Mrs May’s response was noticeably more sure-footed than her recent manifesto launch (see Bagehot). By contrast Labour’s leader, Jeremy Corbyn, has attended events in support of the IRA and described members of Hamas and Hizbullah as “friends”. Polls had shown the Tories’ lead narrowing. It is not cynical to suggest that the return of terrorism will remind voters why they like Mrs May. ■

Social care

The four-day manifesto

A magnificent U-turn raises questions about the Tories’ competence

“**N**OTHING has changed. Nothing has changed!” insisted Theresa May. But it had. Four days after the launch of the Conservatives’ manifesto on May 18th, the prime minister reversed its signature policy, a proposed reform of the funding system for social care for the elderly, which had come to be known as the “dementia tax”. Mrs May insisted that the change was merely a clarification. But Sir David Butler, a nonagenarian psephologist at Oxford University, noted on Twitter that in the 20 general-election campaigns he has followed, “I can’t remember a U-turn on this scale.” The about-face is welcome, but leaves the social-care system underfunded and has fed a growing perception that the manifesto was not thought through.

The Tories’ original plan was to introduce a new funding formula for social care, whereby an elderly person would on their death be liable for all of their care costs, until only £100,000 (\$130,000) of their estate remained. (The state would cover any further costs.) That is higher than the existing threshold, but includes the value of the person’s home, which the existing means-test does not for most people.

The policy was not expected to raise much money, but it was progressive: wealthy oldies would end up contributing most. It earned its unfortunate nickname because it introduced a big dollop of blind luck. A sprightly person who died suddenly might be able to pass on millions, since their care costs would be zero. Someone unlucky enough to endure a long illness

with complex, expensive needs could lose everything except £100,000. For a government that has resisted raising inheritance tax, this was a strange inconsistency.

Mrs May’s emergency “clarification” helps fend off criticism of a health lottery. The new plan adopts the recommendation of a review in 2011 by Sir Andrew Dilnot to introduce a cap on how much a person pays for care. (The manifesto had dismissed his proposals as “mostly benefit[ing] a small number of wealthier people”.) Sir Andrew suggested a cap of around £40,000 in today’s prices. Mrs May has not specified a level.

The higher the cap, the less the state will have to fork out. Sir Andrew’s proposal might have cost about £2bn a year. George Osborne, the previous chancellor, had promised to implement a £72,000 cap from 2020, at a cost of around half that. In an era of squeezed public spending the temptation will be to raise the cap to an even higher level.

The introduction of a cap not only protects the unlucky few from exorbitant care costs. It also limits the liabilities of private insurers, making it more attractive for them to cover social care. At present, the market for social-care insurance is tiny. If it were to develop, elderly folk would worry less about funding their care costs out of their estate.

Yet there is reason to be sceptical that such a market will bloom. British insurance companies have watched American firms get their fingers burnt as conditions like dementia have become more common. Despite the ageing population, by 2014 sales of long-term care insurance in America were two-thirds lower than they had been in the early 2000s. It is also an open question whether, under the new rules, elderly Britons would be all that interested in private insurance. With the cost of care to be capped and no one needing to pay anything until they die, would many bother taking out a policy?

Following the tweak, the Conservatives’ plan for social care looks similar to what was already legislated for before the manifesto was launched, points out Sir Andrew: a cap on costs, plus a means test. This does little to address the funding shortfall faced by social care. Between 2009 and 2019, funding per person is expected to shrink by around 5% in real terms.

The social-care proposal is not the only part of the manifesto which looks a bit half-baked. There is no detail on the extent of proposed cuts to winter-fuel allowance, which are supposed to fund social care. The manifesto is silent on plans for income tax (most people suspect that increases are on the way). And there is no acknowledgment that the pledge to cut net migration by nearly two-thirds would have big fiscal costs. It is a blank cheque from a party in little doubt that the public will sign it. ■



Unswerving

Human rights and Europe

Opting to Remain

The Tories have wisely deferred plans to fiddle with human-rights laws

DEVOUT Brexiters cling to various articles of faith: curtailing freedom of movement, ending the flow of payments into the European Union's budget and escaping the shackles of European law. The position of the Conservatives on those first two points may have satisfied most ardent Leavers. But on the last, the Tories' manifesto may prove disappointing in one respect. The party has ruled out replacing the Human Rights Act (HRA) while the process of Brexit is under way and will scrutinise Britain's human-rights laws only once it is finished. Britain will remain a signatory to the European Convention on Human Rights (ECHR) during the next parliament.

The Tories have long disliked the HRA, passed by a Labour government in 1998. It incorporated the ECHR, which Britain signed (and helped to draft) more than half a century ago, into British law. Several judgments by the European Court of Human Rights, including one that Britain's ban on prisoners voting was unlawful, have upset them. As home secretary, Theresa May criticised the court's insistence that Abu Qatada, accused of terrorism, should not be deported to Jordan without guarantees that neither he nor those giving evidence in his trial would be tortured. Before the Brexit referendum she said she wanted to remain in the EU but pull out of the ECHR.

In fact, by allowing Britons to appeal to British courts about human-rights violations, the act made it more likely that such cases would be dealt with domestically. Previously Britons pursuing human-rights cases had to go to the European Court of Human Rights in Strasbourg. Even now, the court cannot force Britain to change its laws; prisoners do not have the vote despite the court's ruling more than a decade ago. And Mrs May was eventually able to send Mr Qatada packing.

The Conservative Party is no keener on the legislation today than it has ever been. But faced with the tortuous task of negotiating Brexit, the prospect of adding to that burden the complexities of withdrawing from the ECHR and rewriting Britain's human-rights law might seem one task too many. The convention and the court exist independently of the EU, so the prime minister's hard line on Brexit does not necessarily mean abandoning them.

Even if the Tories decide to do away with the act in future, the influence of the convention and the European court might remain greater than Eurosceptics would

hope. "Compliance with European human-rights standards—those set out in the ECHR—will be a precondition to any trade agreement with the EU, so I see no real prospect of Britain leaving the ECHR," says Philippe Sands, a law professor at University College London. "That reality is now reflected in the Conservative manifesto."

Other moves support the view that the government will tolerate some continued influence by European judges. Since the vote last June to leave the EU, Britain has confirmed it will ratify a new European patent system, including a patent court which will be subject to the European Court of Justice (the court of the EU).

And some of the convention rights, such as the right not to be tortured, have

become more firmly rooted in English common law (which is based on precedent, not statute). Judges would be at liberty, though not obliged, to consider principles from the Human Rights Act to be part of common law even if it were repealed. However, the point of the HRA was to make human rights real, not theoretical, and to enable people to access them in the courts and everyday life, argues Sanchita Hosali of the British Institute of Human Rights. Legislation is still necessary for people to pursue such claims.

Even if the practical impact of Britain's withdrawal were mitigated, the message sent would be bad. Only one European country does not recognise the European Court of Human Rights: Belarus. ■

The election in Northern Ireland

Alliance seeks a third way

BELFAST

A non-sectarian party hopes to make a breakthrough

ELECTIONS in Northern Ireland can sometimes seem little more than vast sectarian headcounts, with ancient rivalries between unionists and nationalists taking precedence over all else. This time competition is particularly keen, after a regional election in March which saw the main nationalist party, Sinn Féin, come within an ace of toppling its main unionist rival as the biggest party.

Yet amid the fierce battle between the two camps, a non-sectarian party is hoping to capture one of Northern Ireland's 18 parliamentary seats on June 8th. The leader of the Alliance Party, Naomi Long, is the favourite to win the constituency of East Belfast, which she held for a single term in 2010-15. Her distinctive brand of combative politeness has earned her the nickname of the "ginger ninja".

Alliance has stood for moderation and co-operation since the early 1970s but, squeezed between the two big tribes, it has never quite reached 10% of the vote. Perhaps the real surprise is not that it has not blossomed into a major power, but that it has survived at all. Now, however, it is enjoying a modest revival in a place notorious for aversion to compromise.

It is neutral about the question of the Irish border, saying in common with the governments of Britain and the Irish Republic that the present arrangement should be changed only if there is evidence of demand for it. In practice most of its members favour the status quo.

Born and bred in her mostly Protestant constituency, in the shadow of its now almost inactive shipyard, Ms Long took a de-



Short odds on Naomi Long

gree in engineering. Politics initially repelled her: "All I saw were men in grey suits shouting at each other on the television," she says. (One thing that has changed: three of the five largest Northern Irish parties are now led by women.)

Her commitment to a third way has not been easy, nor without physical danger. Four years ago she was the target of death threats from hardline unionists, who angrily objected to Alliance's support for reducing the flying of the union flag at Belfast City Hall. A police car on watch at her office was petrol-bombed by hooded men; some of the party's other offices were attacked and damaged.

Things have calmed down since the days when mobs congregated outside her ►►

office to hurl abuse her way. But the episode meant she lost her Westminster seat in 2015, when various unionist parties joined forces to ensure her defeat.

Now, however, she is the favourite to regain the seat, because the rival unionist parties have not been able to agree on a pact. In the present campaign, she reports, the intensity and anger is much reduced. "We still get local pockets of hostility occasionally," Ms Long says, "but it's one or two people rather than a general outcry."

She is keen to restore the devolved assembly at Stormont, which has been out of action since the latest falling-out between nationalist and unionist leaders in January. Devolution is "absolutely critical", Ms Long declares. "I would hope that we will be moving more rapidly towards politics that is not always defined along orange and green lines." Maybe ginger ones? ■

Online campaigning

A fresh canvass

Digital democracy is changing the way elections are fought, for better and worse

SUMATRA ROAD, in north-west London, is a heavily canvassed street. It lies in the marginal constituency of Hampstead and Kilburn, which Labour won in 2015 by little more than 1,000 votes, and is a convenient half-hour Tube journey from Parliament. Its residents are used to spending the weeks before elections traipsing to and from their front doors to receive petitions from politicians of all stripes.

This year a different sort of campaign is

being waged, away from this corridor of red-brick terraces. Digital electioneering, in which political parties buy adverts that target users of social media, was first used on a large scale in Barack Obama's 2008 presidential bid. Since then it has grown. Dominic Cummings, who was campaign director for Vote Leave ahead of the Brexit referendum, has said that 98% of the campaign's money was spent on digital advertising. Labour aims to spend £1m (\$1.3m) on it in this year's election, having been outspent by the Tories last time. Most of the ads are placed with Facebook; some are bought on YouTube, owned by Google.

Political ads can be targeted with high precision using the personal data held by social networks, allowing canvassers to pick and choose whom they talk to: parents, pensioners or *Economist* readers. Best for Britain, which is campaigning for the country to stay in the European Union, has sent an ad to people aged 20-31 who live in the constituencies of Birmingham Yardley, Wimbledon and South West Norfolk. The public appears wary of this kind of digital canvassing. In a survey of American voters in 2012, 85% said they would be angry if they found out that "Facebook was sending me ads for political candidates based on my profile information"—which it does.

"A good deal of the anxiety and fear is down to opacity," says Martin Moore, director of the Centre for the Study of Media, Communication and Power at King's College London. "It would be much easier to apply election principles and laws if we knew what was being communicated, to whom, and how much it cost." Elizabeth Denham, Britain's information commissioner, who enforces data-protection rules, announced on May 17th that she would open an investigation into the use of data analytics for political purposes.

How sinister is it really? Sam Jeffers, who runs a digital marketing consultancy called The Shop and has advised the Labour Party, is sceptical. He points out that even large companies are not very good at targeted, data-driven advertising—as anyone who has been chased around the internet by the spectre of a fridge they bought the previous week can attest. "Big companies are spending hundreds of millions a year on their marketing and aren't doing it very well," says Mr Jeffers. Why would political parties be able to do it any better? "You're expecting organisations on a month's notice with £1m to do things that

Voting

Turn on, tune in, turn out?

Election fatigue and a big gap in the polls may persuade voters to stay at home

THESE are exciting times for political journalists. For everyone else they are wearying. It is only two years since the most recent general election and less than 12 months since the Brexit referendum. Much of the country had local elections earlier this month. Scotland and Wales elected their regional parliaments less than a year ago; Scots had previously voted on independence. The poor Northern Irish have had to elect their regional assembly twice in little more than a year. Who will have the energy to turn out for the general election on June 8th?

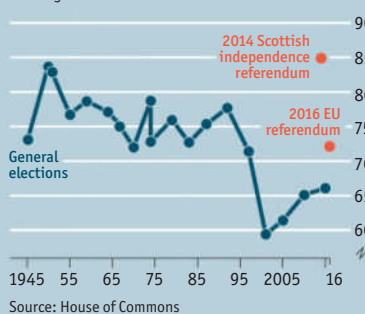
Frequent votes are known to depress turnout. An analysis by Colin Rallings and others at Plymouth University of nearly 4,000 local-government by-elections between 1983 and 1999 found that the less time had elapsed since the previous election, the lower the turnout. A more recent study in Germany drew the same conclusion.

People are also more likely to stay at home when the race looks uncompetitive. A meta-analysis of 52 studies on election turnout by Benny Geys of the Free University of Brussels found that 36 of them established a relationship between the closeness of the race and the strength of turnout. Next month's contest does not fare well in this category, either: although Labour has recently caught up a bit, Theresa May's Tories are a good ten points clear in most polls. The last time an election was so predictable, in 2001 (when Tony Blair steamrollered William Hague), turnout slumped.

This year may yet surprise. The Brexit

Yawning gap

Britain, turnout at elections
% of registered voters



referendum attracted a healthy turnout of 72%, with 3m more votes than the most recent general election. It may be that those new voters are still engaged. And although the race is not close, there is plenty of variety in the parties' manifestos. Labour is running on its most left-wing platform in decades; the Tories are gunning for a hard Brexit; the Liberal Democrats want to reverse it altogether. The usual complaint that "they're all the same" does not apply.

Whatever the turnout, it will affect future elections, too. One of the strongest determinants of a person's likelihood to vote is whether they voted in the previous election. The trough of 2001, when turnout plunged by 12 percentage points, is one from which Britain is still recovering. If the combination of fatigue and predictability lead to a low turnout next month, the effects may be felt for years.

are persuasive and accurate," he says.

Beyond the invasive profiling, there are other features of online canvassing that have got people worried. The first is that online messages can be sent farther and faster than in the offline world. "The web is frictionless," says Kate Klonick of Yale Law School, who has spent the past year studying how free speech, including political campaigning, works on Facebook.

And unlike conventional political ads and leaflets, online messages can be tailored to each recipient. They are thus harder to inspect—especially because the largest platforms on the web, including Facebook and YouTube, do not work with third-party researchers or journalists who want to observe political parties' campaign messaging. Unlike Sumatra Road, which any politician or hack can plod in search of votes or stories, Facebook is a maze of virtual streets in which parties can campaign with little scrutiny.

Precise demographic targeting has upsides. Digital canvassing offers a way to send people information relevant to them: before the deadline for registering to vote on May 22nd, Labour sent young people videos (featuring cats) urging them to sign up. Targeting like this could help to raise interest in politics at a time when turnout is low. It can, however, be used to achieve the opposite effect. Donald Trump's strategists admitted to using targeted online adverts to demoralise supporters of Hillary Clinton into not voting. An animation entitled "Hillary Thinks African-Americans are Super Predators" was sent to groups of black voters via Facebook, calculated to prevent them from turning out. "Only the people we want to see it, see it," Brad Parscale, Mr Trump's digital canvasser, told Bloomberg at the time.

As targeted advertising makes it possible for parties to offer different things to different voters, there is a risk that they will make promises that are mutually inconsistent. Conflicting promises can be easily masked from different groups. This may

The campaigns

Speakers' Corner



Stormzy in a teacup

"Yes I do, thank you."

Jeremy Corbyn reassures the BBC that he really does like grime music, after garnering further support from artists of the genre

Look after pennies...

"Less than 7p per pupil."

The amount allocated for the school breakfasts that the Conservatives have promised will replace free lunches, on the basis of the £60m (\$78m) they said the policy would cost. Schools Week

...and pounds look after themselves

"The money we save on the winter-fuel payments going to Mick Jagger and Bernie Ecclestone...will be better spent on the social-care system."

Damian Green, the work and pensions secretary, unveils the Conservatives' "soak the rich" approach to fiscal policy. BBC

The special relationship

"The British police have been very clear that they want to control the flow of information in order to protect operational integrity...So it is irritating if it gets released from other sources and I have been very clear with our friends that that should not happen again."

Amber Rudd, the home secretary, after American intelligence sources leaked details of the Manchester bombing. BBC

Trumped

"Evil losers."

Donald Trump's take on the terrorists

Twitter twit

"@clairenurse Sorry I was wrong about Twitter rumours. Entirely right that your voice is heard."

Joanna Cherry, the Scottish National Party's spokeswoman on justice, apologises to a nurse who in a televised debate had argued with Nicola Sturgeon, the SNP's leader. The SNP had falsely accused her of being married to a Tory councillor

Facebook facepalm

"What has happened in Manchester is awful and my thoughts are with the families. However I can't help thinking this is wonderful timing for Theresa May."

Debbie Hicks, the vice-chairman of the Labour Party in Stroud, was suspended for her comment a day after the terrorist attack. Stroud News & Journal

Inverted pyramid of piffle

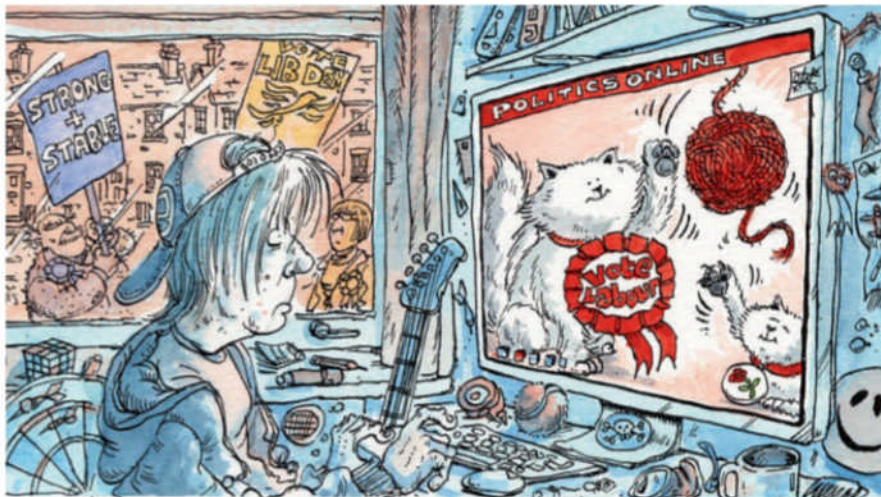
"You lied to us, Boris, you lied about the money!"

Boris Johnson, the foreign secretary, is confronted by an angry voter in Cornwall. The Leave campaign in the Brexit referendum promised an extra £350m a week for the NHS if Britain left the EU. CornwallLive

blind voters to the compromises of politics, eventually eroding trust. Finer targeting may also be a problem in light of research from America which shows that targeted messaging has led to more extreme party positions regarding religion.

The Electoral Commission, which regulates campaigns in Britain, requires details of campaign spending to be kept, but does not require the content of online or offline messaging to be recorded. (When asked, the Conservatives did not show *The Economist* any of the digital ads they had sent, nor the logic behind their targeting. Labour provided a small sample.) A few third parties are on the case. Mr Jeffers has built a piece of software called Who Targets Me that offers to monitor the social media feeds of concerned voters.

On Sumatra Road, political signs and posters decorate gardens and windows. The public displays of political loyalty, and the canvassing done in the open, are in contrast to the battery of private messages that are simultaneously reaching residents via their computers and smartphones. As Britons go to the polls, each has been the recipient of a sometimes widely contrasting series of political messages. In future, victory will belong to whichever party can master the art of waging tens of millions of minutely personalised campaigns. ■



Bagehot | The two Theresas

Two prime ministers were on display this week—one thoroughly competent, the other less so



THERESA MAY struck the right tone in the aftermath of the bombing in Manchester. She delivered two businesslike addresses to the nation, the first expressing an appropriate mixture of outrage at the atrocity and pride in the response, the second announcing the decision to raise the threat level to “critical” and deploy troops on the streets. She chaired two emergency meetings of ministers and officials and then travelled north. The prime minister was the personification of keep-calm-and-carry-on.

Yet just the day before the bombing a very different Theresa May had been on display. She performed an embarrassing U-turn on her party’s policy on social care for the elderly and then tried to pretend that the U was a straight line. This is perhaps the first time that a party leader has dumped a central manifesto promise before a general election. She then gave a disastrous interview to Andrew Neil on the BBC which revealed holes in her understanding not just of basic economics but also of her own manifesto’s commitments. Far from “strong and stable”, the phrase repeated endlessly in her campaign, the prime minister looked “weak and wobbly”, as one journalist put it.

Anybody can have a bad week. Mr Neil is a tenacious attack dog: few continental leaders are subjected to this level of public interrogation. It is better for politicians to withdraw flawed policies than to keep defending them. But there is a limit to the number of excuses that one can make for someone who is not only seeking the highest office in the country but is also presenting herself as uniquely qualified to negotiate a divorce settlement with Europe that could shape the country for a generation.

The manifesto meltdown and the Neil kebabbing revealed three worrying things about Mrs May. The first concerns her management style, which is to rely on a small group of advisers, refuse to consult and make big decisions on the fly. The second concerns her knowledge. Mr Neil’s interview reinforces the established impression that she knows precious little about business and economics. The third is that these two reinforce each other: the further she moves into unfamiliar territory, the more dysfunctional her approach becomes.

Mrs May perfected her style during six grinding years at the Home Office. She became the empress of her brief. Both friends and enemies describe her as a dogged worker with almost no

small talk. She relied on two ferociously loyal special advisers, Nick Timothy and Fiona Hill. She fought her corner against cabinet colleagues who either dismissed her as a dullard or, as she stuck around for years, feared her as a rival.

This approach brought significant successes. Mrs May showed civil servants who was boss—no mean achievement in a huge and lethargic bureaucracy—and took on vested interests such as the police. But it also produced significant failures. She ignored appeals by her cabinet colleagues to relax a clampdown on foreign students, despite the damage that her policy was doing to higher education, an area where Britain excels.

It is hardly surprising that Mrs May applied the formula that had kept her on top of the Home Office for so long when she became prime minister. She installed Mr Timothy and Ms Hill as her co-chiefs of staff and centralised control of all decision-making. But on her new territory, much larger and less familiar, the ratio of failures to successes has worsened. The best leaders bring together people with different strengths. Mrs May’s team brings together people with exactly the same weaknesses. Two vulnerabilities are particularly worrying: a profound ignorance of economics (Mrs May hasn’t had to soil her hands with any business-related subjects since she briefly worked at the Bank of England in 1977–83) and a preoccupation with internal party politics. Mr Timothy in particular is obsessed with refashioning the Tories as a more blue-collar party. Issues with far-reaching economic consequences, such as migration, are too often treated as problems of law and order or opportunities to reposition the party.

The dangers of this approach were apparent in Mrs May’s U-turn over social care. The Tory party’s manifesto tried to tackle two of Britain’s biggest problems—the rising cost of looking after elderly people and the concentration of wealth in the hands of the old—with an audacious suggestion: why not get oldsters to fund more of the costs of care themselves? But it ignored crucial details such as putting a cap on costs. Looking after someone with dementia can wipe out even a prosperous family. Sir Andrew Dilnot has discussed this subject in an exhaustive government report on social care. Cabinet ministers such as Jeremy Hunt, the health secretary, have grappled with the problem for years. But apparently Mr Timothy added the half-baked proposal without running it past the cabinet or digesting Sir Andrew’s findings.

May the best May win

This is part of a worrying pattern: consulting too narrowly, riding roughshod over opposition and then backtracking ignominiously or carrying on regardless. Two months ago Mrs May abandoned a budget proposal to raise national insurance contributions for self-employed workers because she and her team had failed to spot that it clashed with one of David Cameron’s manifesto commitments. She remains obsessed by reducing annual net migration to “tens of thousands” (from a current level of about 250,000) despite the fact that none of her cabinet colleagues, let alone independent experts, think it achievable.

The difference between a successful politician and an also-ran is not how they respond to success but how they respond to failure. Successful ones treat it as a chance to up their game. Also-rans alternate between stubbornness and retreat without bothering to pause for reflection. Mrs May should treat the manifesto meltdown as a warning and an opportunity: a warning of what will happen if she continues with business as usual, and an opportunity to shake up her inner circle and broaden her thinking. ■



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Ukraine's stalemate

Theatre of war

SLOVIANSK

Three years after the conflict started, Ukraine and Russia are both trapped

ON APRIL 12TH 2014 Igor Girkin, a former Russian military officer also known as "Strelkov" ("Shooter"), sneaked across the border into Ukraine's Donbas region with a few dozen men and took control of the small town of Sloviansk, igniting Europe's bloodiest war since the 1990s. To create the impression of strength, Mr Girkin, an aficionado of historical battlefield re-enactments, masqueraded as a member of Russia's special forces, and had his men drive two armoured personnel carriers around every night to simulate a large build-up. In fact, his army never exceeded 600 men, mainly Cossacks and war-hungry opportunists like himself.

Having just lost Crimea and lacking a functioning government or military command after the Maidan revolution, Ukraine was stunned. As Russia massed its forces on the border with Ukraine, most observers (and participants such as Mr Girkin) expected a swift invasion followed by annexation. Instead, the Kremlin created an ersatz civil war, absurdly portraying the Kiev government as a "fascist" regime and the separatists as freedom fighters. As the Ukrainian army moved in to try to retake Donbas, Mr Girkin and his fighters took up positions in a psychiatric hospital on the outskirts of Sloviansk, using its patients as human shields.

Today, the ruined psychiatric hospital, resembling a scene out of the battle of Stalingrad, is a symbol of the madness of an essentially theatrical conflict that has cost

10,000 lives and displaced more than 1.7m people. Yet officially, Russia and Ukraine are not at war. They maintain diplomatic relations and trade with each other. Ukraine has euphemistically designated the conflict zone an area of "anti-terrorist operations" (АТО). Most of the people caught up in the war do not care who started it, or what they call it.

"I am against everyone," says Lyudmila Prikhodko, who lives in a restored building among the hospital's ruins. (The names of civilians in the conflict zone have been changed.) An engineer, Ms Prikhodko was forced to flee Donetsk after refusing to support the self-proclaimed Donetsk People's Republic (DNR). She feels equally alienated from Russia and Ukraine. "DNR treats people like me as enemies. Ukraine sees us as potential separatists."

A nation divided

On paper, there is no border between the two parts of Ukraine. In practice, there are several frontier control points, manned by border guards and customs officials and crossed by those who live in the separatist territories but must work, receive pensions or handle bureaucratic problems on the Ukrainian side. Andrei Borisov, a smuggler who carries food, cigarettes and pesticides from Ukrainian territory across the line of control, says everyone is in on the business: customs officers, local officials and separatists on the other side.

During the day, while the Mayorsk

crossing is open, things are relatively quiet. When it closes and darkness falls, the two sides start firing mortars at each other, while people living in no-man's land take shelter in their houses. In the morning they come out to inspect their vegetable plots, dotted with craters, and collect their harvest of potatoes and shrapnel.

In nearby Avdiivka, one of the flash-points a few months ago, the firing is more intense. Four civilians were recently killed. Alexander Samarsky, a commander of the Ukrainian army's 72nd Brigade, says the main purpose of this seemingly pointless pounding is the need for the separatists to boost morale and keep soldiers active and disciplined. The same applies to his troops, who have been stationed here without rotation for over seven months. The army is in much better shape than it was three years ago, but drinking and drugs have become enough of a problem for Kiev to send in the national guard, a militarised police force. Without being asked, two national guardsmen take out a smartphone and display a video of drunken army officers having their bootleg liquor and bags of white powder confiscated.

The two guardsmen's own story is compelling. Three years ago, at the Maidan demonstration, they were on opposite sides of the barricade: one, a militarised police officer from Kharkiv, was called in to defend the presidential administration; the other, from Kiev, was a student protester. Today they man one post. Yet such solidarity is uncommon among civilians. Most of the local population in Avdiivka, according to Mr Samarsky, are not on his side. Russian television continues to broadcast there, and absurdly, despite the daily shelling, most of the locals blame Ukraine rather than Russia for their misery.

Petro Poroshenko, Ukraine's president, seems more worried about losing the loyalty of pro-Ukrainian fighters than he is ►►

▶ about winning hearts and minds in the east. Instead of campaigning for the support of local Russian-speakers, the government is imposing quotas on the use of Russian on Ukrainian channels and banning the import of Russian-language books. Mr Poroshenko's position may be weaker than it seems. In February, a small group of Ukrainian irregulars and volunteers blocked railway traffic across the line of

control, halting freight between the separatist territories and the rest of Ukraine. Mr Poroshenko opposed the blockade, but its slogan, "No trade in blood", caught on. Support for the blockade soared from 7% to over 50%, according to polls.

Unable to beat them, the government joined them, imposing a trade and energy blockade on the occupied territories. This disturbed the situation in Donetsk. The

separatists responded by seizing control of all of the coal mines and steel and chemical plants owned by Rinat Akhmetov, Ukraine's richest oligarch. Mr Akhmetov was not only the biggest employer in the occupied territories but also their greatest benefactor, providing up to 400,000 humanitarian food parcels per month to the elderly and those in need. The parcels have now been stopped by the separatists, and Mr Akhmetov's 56,000 well-paid miners and workers have lost their income.

When Mr Akhmetov's workers attempted to protest, they were met with a mixture of threats and bribes by the separatists and their Russian backers. The miners' protests would have destroyed the illusion the Russians have tried to create of a model Soviet-era proletarian city. The half-empty city has been kept spotless, the lawns mowed and pavements swept clean. Oksana Mironova, who lives in Donetsk and manages a medium-sized business on the Ukrainian side, says the separatists are trying to introduce the symbols and attributes of a state and create an impression of permanence. Yet it remains a gangster-run territory: "They put on lipstick but forgot to wash their necks."

Unable to offer much of a future, the separatists are cultivating the symbols of the Soviet past. On May 11th, they marked the third anniversary of their "republic" with a Soviet-style march. A voice boomed from loudspeakers: "We greet this day with joy and pride for a glorious past and in confidence for a peaceful and happy future." Workers with balloons and Soviet flags marched in columns along Lenin Prospect. Yet keeping up a Soviet veneer may not be easy without jobs, particularly as industrial production plummets.

However disillusioned most people in Donetsk feel with the "Russian spring", few believe that the territory could ever be reincorporated into Ukraine. But it is not just Ukraine and Russia that have been engaged in a game of make-believe. So has the West, whose leaders continue to endorse the Minsk-2 ceasefire agreement, while privately admitting that it is dead.

From the time Minsk-2 was signed two years ago, it was designed to mask an effective defeat of the Ukrainian army by Russian forces. The agreement calls for Russia to return control over its border and over the separatist territories to Ukraine, something it will never do. Ukraine, meanwhile, lacks the military power or Western support to take it by force. America has refused to arm Ukraine with lethal weapons, let alone fight on its side. Some Western politicians argue that it would be more honest and productive to pronounce Minsk-2 dead and enforce the current line of division between the separatists and the rest of Ukraine with an armed peacekeeping force. Ukraine, the argument goes, would lose only a swatch of land which it does ▶▶

Fighting corruption in Ukraine

Harsh medicine

KIEV

Battling graft is hard, but there have been successes

UKRAINE is fighting two wars. One is near its eastern border, where it faces Russian aggression. The other is at its core, where it is wrestling with some of the worst corruption of any post-Soviet state. The war against corruption is only starting, and the fighting is carried out office by office, ministry by ministry.

Naftogaz, a state oil and gas firm which once epitomised the country's misgovernment, has been cleaned up. Some of the most powerful oligarchs have been squeezed. One of the main sources of corruption that feeds the system, state procurement, has been slowly overhauled, producing some positive results.

In 2016 the health ministry launched a four-year programme to outsource procurement of medicines to international agencies. In the past, bureaucrats allied with suppliers to inflate prices. With one of Europe's fastest-growing HIV epidemics and many other health emergencies, this was a burden Ukraine could not afford. Patients of Ukraine, an NGO, has estimated that 1,600 Ukrainians die daily from the resulting lack of medicine.

The health ministry contracted Crown Agents, a British-based development agency, and two United Nations bodies to buy medicines on its behalf. Their year has not been easy, with red tape causing delays. But when the first year's results came back in December, they showed a 38% saving compared with 2015, without compromising on the quality of the drugs. Whereas before two or three suppliers dominated supply, Crown Agents have brought in almost 30, thus defeating the tricks previously used to corner the market.

Alexandra Ustinova of Patients of Ukraine mischievously suggested that Crown Agents had been "lucky" to win the oncology contract, since it included the drugs whose prices had previously been most inflated by corruption. But she acknowledged the agency's success in cutting costs, along with that of the

UNDP, which saved \$4m out of \$39m assigned to buy medicines for HIV, tuberculosis and other infectious diseases.

The auditor of Crown Agents' figures, Prashant Yadav of the University of Michigan, said it was hard to say how much of the savings were from curbing corruption, and how much from being more competent than the bureaucrats who used to be in charge. But they were high. "We would expect to see savings like this in very small markets, in Africa," he said. "A decade ago."

This may be a small victory, but the fight against corruption is rarely won by tanks. As the fighting intensifies, the corrupt system is starting to push back. Some politicians are even attempting to tarnish the name of one of the country's most respected anti-corruption organisations, the Anti-corruption Action Centre (AntAC). The group has received grants from Western donors, and pushed to create an anti-corruption prosecutor's office, making itself plenty of enemies in the process. Alexander Martynenko, the head of Interfax Ukraine, a news agency, says AntAC's foes, unable to ban it, are trying to discredit it in the eyes of its sponsors and cut it off from funding sources. In such a campaign, disinformation is the ammunition of choice.



not control anyway. And it would prevent the rest of the country from being frozen in a permanent state of war.

The problem is that too many parties in this conflict have an interest in keeping up the charade. This includes both Mr Poroshenko and Vladimir Putin, Russia's president. Both have rejected any talk of changing the Minsk-2 agreement, as this would undermine their credibility. Yet neither is interested in taking formal responsibility for Donbas. Mr Poroshenko's legitimacy rests almost entirely on the fight against Russia, and he has no interest in letting Donbas vote in the presidential elections in

2019. The Kremlin does not want either to pay for Donbas or to limit its options in meddling in the rest of Ukraine.

Yet leaving things as they are does not mean they will stay this way. As Mr Girkin said recently: "sooner or later [Russia] will have to face either a victory or a defeat. A military confrontation is inevitable." His ideal outcome would be a resurrection of Novorossiya, the historic Russian term for the eastern parts of Ukraine, as part of a new state comprising Russia, Ukraine and Belarus. This may seem like a delusion. But then so did his first raid on the hospital in Sloviansk three years ago. ■

Greece's debt odyssey

No relief

ATHENS AND BRUSSELS

The government meets creditors' demands, but there's a catch

MAKIS, a gym instructor, counted himself lucky three years ago to land a job in the public sector. The 28-year-old works as a groundsman at a sports complex in Glyfada, a seaside suburb of Athens. Hired on a temporary contract, he expected to make a smooth transition to a permanent post in local government. But times are changing. Greece's state audit council, which normally rubber-stamps official decisions, unexpectedly ruled this month that municipal employees should be dismissed when their contracts expire.

"That's it for me, I'll have to leave and find a job abroad like everyone else," Makis says, gesturing towards his colleagues: a phalanx of state employees, from rubbish collectors to computer technicians. They are outside Athens's city hall, protesting against the audit council's decision.

More upheaval is on the way. On May 18th parliament approved a new package of reforms demanded by the European Union and the IMF, Greece's bail-out creditors. Sunday shopping will be extended outside tourist areas, despite objections by small retailers claiming they will be driven out of business by large stores that can afford to hire the extra staff required. "We lobbied the politicians successfully for years to stop this happening, but the game is over," said Panos, who owns a hardware shop in central Athens.

Passing the measures was supposed to unlock bail-out funds from Greece's creditors, which the government needs to avoid defaulting on bond payments of around €7bn (\$7.9bn) in July. But a long-running squabble between Germany and the IMF has complicated matters. The fund declined to join Greece's current bail-out, its third, when it was signed in 2015. Now

Wolfgang Schäuble, Germany's finance minister, says Germany will not agree to disburse any more bail-out money without the IMF's participation in the programme—which is needed, he thinks, to counter the softies in the European Commission. Mr Schäuble has the backing of some other euro-zone governments.

But the IMF believes that the Europeans' projections for the Greek economy are too rosy, and that Greece's debt will be unsustainable unless it gets further deferments on paying it back. Mr Schäuble is wary of granting such debt relief just months before Germany's election in September. So despite having met its creditors' conditions, Greece is stuck in the middle of their row. A meeting in Brussels on May 22nd failed to resolve the dispute. Officials on all sides are confident a deal will be struck in June.

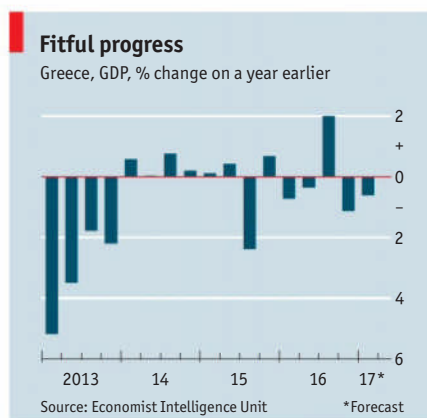
Critics of Alexis Tsipras, Greece's prime minister and leader of the left-wing Syriza party, say his government has signed up to another five years of austerity without se-

curing the debt relief promised by creditors in return. Worse, he is accused of betraying his own voters. Whereas last year's round of tax increases hit the middle class hardest, the new measures will shrink the incomes of poor Greeks. Pensions have been cut a dozen times since 2010; another 18% will be lopped off in 2019. The tax-free allowance on incomes will be slashed in 2020 to bring Greece in line with its euro-zone partners. (More than half of Greeks pay no income tax at all, compared with 8% for the euro zone as a whole.)

When Syriza swept to power in 2015, Mr Tsipras promised to end austerity and restore social benefits cut by previous governments. Yet his failure to do so has prompted few strikes and street protests, compared with reforms by earlier governments. One reason is that trade unions, which include many Syriza supporters, have been reluctant to defy their fellow leftists. But after seven years of recession ordinary Greeks seem resigned to getting by on less. "It's hard to face the fact that your pension's getting smaller, but what to do?" shrugs Constantina, a retired teacher.

Syriza officials accept that voters will punish Mr Tsipras at the next election, due in 2019. The conservative New Democracy party, led by Kyriakos Mitsotakis, a staunch reformist, holds a double-digit lead over Syriza in opinion polls. Some Syriza members have even suggested that the prime minister should call an early election and enjoy a spell in opposition, stirring up trouble for the conservatives while they struggle to implement tough policies already agreed upon with the EU and IMF.

Mr Tsipras's strategy is not as Machiavellian, say party insiders. With the economy forecast to grow by 1.8% this year and 2.4% in 2018, he is betting that Greece can attract enough investment to make a dent in unemployment, still the highest in the EU at around 23%. If Syriza can win back enough votes to prevent a conservative landslide at the 2019 election, its 42-year-old leader's future still looks bright. ■



Not a fan of austerity

Czech politics

Paper tiger

PRAGUE

Andrej Babis, a media magnate, looks set to win the election in October

BACK when newspapers were king, Charles Brownson, an American congressman, used to say that one should never quarrel with anyone who buys ink by the barrel. The principle still stands, and it is making life difficult for opponents of Andrej Babis, a billionaire media magnate who until this week served as Czech finance minister. With a general election set for October, Mr Babis's ANO party seems unassailable, polling at 33.5% against 16% for the second-place Social Democrats.

On May 2nd Bohuslav Sobotka, the prime minister, threatened to resign unless the country's president fired Mr Babis over a questionable tax break he received in 2013. Mr Sobotka, a Social Democrat, hoped the attention to Mr Babis's finances would stop his own party's headlong slide. The finance minister eventually agreed to step down. But more Czechs blamed Mr Sobotka for the clash than Mr Babis, and it seems ever more likely that he will win.

That election is one of two in the next eight months that are pivotal to the Czech Republic's direction. The second is in January, when Milos Zeman, the pro-Russian president, is up for re-election. As the westernmost former Soviet-bloc state, the Czech Republic straddles Europe's growing divide over liberal, pluralistic values, which Poland and Hungary are challenging. Mr Babis, a pro-business centrist with no affection for Russia, has little in common ideologically with Mr Zeman, an economic leftist. But both men have expressed disdain for political dialogue and democratic checks and balances. Mr Sobotka calls them the "power tandem", and pledges to resist their populist wave.

Mr Babis is a centrist who contends he can manage the country as he did his business empire. He is popular with many Czechs, but others treat him with suspicion. He accumulated vast wealth from his agrochemical conglomerate, Agrofert, which produces more than a third of the country's bread. His political rise coincided with his purchase of the newspapers. In February, a new law forced him to place his business holdings in a trust. Mr Babis insists he does not abuse his business or media ties for political gain. But he has been damaged by audio recordings, leaked earlier this month, in which he and a journalist discuss how to leak documents to discredit his political opponents.

More damaging has been the news of his tax break. In 2013 Mr Babis purchased

Optimism in France

Yes, oui can

PARIS

The land of President Macron tries to turn its frown à l'envers

THE French like to think of themselves as a miserable lot. Voltaire taught them that optimism is for the naive. Jean-Paul Sartre made ennui chic. Best-selling French psychology books include such titles as "Too Intelligent to be Happy". Polls consistently rank the French among the world's most despondent. Fully 85% earlier this year said that their country was heading in the wrong direction, compared with 61% of Britons and 51% of Americans. The Anglo-Saxon world hosts a blossoming trade of life coaches, self-help writers, motivational speakers and happiness researchers—what might be called the "optimism industry". In France, it has had trouble gaining a foothold.

Now, it seems, upbeat thinking is à la mode. During his election campaign, Emmanuel Macron, the new president, was the candidate of "la positive attitude", said Damon Mayaffre, a linguistics

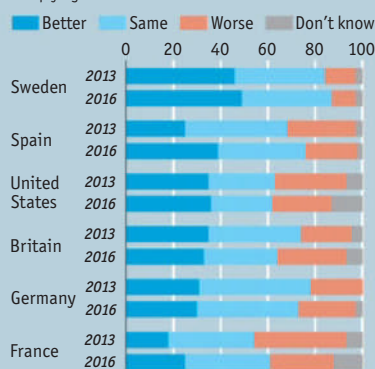
researcher. Favourite words he used in his campaign speeches included hope, future, dream and youth. Even the name Mr Macron gave his political movement, En Marche! ("On the Move!"), conjures up motion and can-do enthusiasm; its jaunty exclamation mark jars with the traditional Gallic pout.

"What is very new is a different state of mind at national level, and this can be felt at an individual level too," says Philippe Moret, a coach and founder of Attitudes Positives, a consultancy. The idea is that a more optimistic approach at the top could help coax France more broadly out of its *morosité*. Even before Mr Macron's election, some sensed the changing mood. "What is positive psychology?" asked *Cosmopolitan*, a women's magazine, last month. It went on to tell readers of the "science of happiness" and its "revolutionary" potential.

Optimism in France could be good for growth. Business confidence in May already showed signs of recovery. The composite IHS Markit index indicated the strongest monthly growth in France for six years. Rising confidence might also help those who have toiled for years in the optimism industry, against the odds. One such initiative is Sparknews, which promotes positive reporting. Another is the Positive Economy Forum, a yearly meeting designed to promote a "positive society". It is the brainchild of Jacques Attali, a one-time mentor to Mr Macron who also advised François Mitterrand, a former president. The forum happens to take place in Le Havre, a town in Normandy whose outgoing mayor, Edouard Philippe, is Mr Macron's new prime minister. Perhaps the French will take the power of positive thinking seriously, now that positive thinking is in power.

Upbeat, or beat-up

As far as you are concerned, do you think that next year will be better, worse or the same as this one?
% replying



Source: WIN/Gallup

bonds in his former company worth 1.5bn koruna (\$63.5m), sneaking through a loophole just as it was about to close. The deal would bring him \$2.2m in tax savings this year. Mr Babis says he will donate his gains to charity, and claims the prime minister's aspersions about the deal are lies.

In any case, the bickering has mainly weakened Mr Sobotka and Mr Zeman. The prime minister backed down from his threat to resign, and Mr Zeman at first declined his request to fire Mr Babis. He then subjected Mr Sobotka to a humiliating dressing-down on national television. Surveys show that Czechs find Mr Zeman's behaviour unrepresentative. Mr Zeman, a for-

mer head of the Social Democrats, once had many allies in the party, but Mr Sobotka now says it may run its own candidate for president against him.

On May 24th Mr Babis stepped down, and was replaced by Ivan Pilny, an ANO deputy and the former head of Microsoft's Czech division. But Mr Sobotka's haphazard politicking has mostly damaged himself. Increasingly, Czechs are talking more about government dysfunction than about Mr Babis's business dealings. He calls himself an outsider; being pushed out of government will only help him to sell that story. Owning a couple of newspapers will not hurt, either. ■

CONVICTION

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Charlemagne | The terrible trio

Three populist presidents have left Europe with an acute case of geopolitical loneliness



THE mood is brighter in Europe these days. It has not, admittedly, taken much to lift the spirits: reckless extremists came second, not first, in elections in Austria, the Netherlands and France; economic growth has accelerated beyond a snail's pace; and Brexit, though probably disastrous for Britain, may not be catastrophic for Europe. Still, even the return of normality is a relief for a continent that has spent the past few years battling crises.

But if Europeans have at last started to feel better about themselves, the world outside looks ever-more menacing. The cherished European values of liberalism and respect for human rights are being challenged by a cohort of unpredictable leaders who seem not to prize or understand them. This is unsettling for the European Union, a slow-moving club founded on reverence for the rule of law. For Europeans the shift is embodied in three presidents whose capricious impulses are shaping and constraining their foreign policy: Donald Trump, Vladimir Putin and Recep Tayyip Erdogan.

Take Mr Trump first. Europeans' fears about the American president have partly eased since he took office. Mr Trump used to enjoy egging on anti-EU politicians like Nigel Farage and Marine Le Pen. However, after meeting various European leaders, he has largely stopped doing so. In February Mike Pence, the vice-president, reassured Eurocrats that America was not bent on destroying the EU. European officials, after visits to Washington, express optimism that some of Mr Trump's more outlandish courtiers, such as Peter Navarro, a trade adviser who thinks America's deficits threaten its security, have lost the president's ear.

But Europeans are far from comfortable. "We have no idea where [the Americans] are on so many issues," says a diplomat in Brussels, where Mr Trump was arriving for an EU meeting and NATO summit as *The Economist* went to press. That meeting was to be followed by a two-day summit of the G7 in Sicily. In the run-up to these encounters the Europeans hunted for clarity on America's intentions, especially on climate and trade. During the campaign, Mr Trump vowed to withdraw from the Paris climate accord; he has neither reaffirmed nor revoked that pledge. (Alert to his "America first" approach to diplomacy, the Europeans have drawn up lists of American jobs that depend on clean energy.) The Americans have been reluctant to sign up to boilerplate lan-

guage, in the G7 communiqué, on the importance of global trade.

If Mr Trump provokes questions for Europeans, Mr Putin challenges their assumptions. His Crimean land grab upset the post-cold war order, and his troops wreak havoc in Ukraine's east. Weakness may limit the scale of what Mr Putin can accomplish. But Russia's ongoing decline gives him a reason to act now rather than wait to disrupt pro-European reforms in countries that he sees as within his sphere of influence (although, happily, the EU has at last granted Ukrainians the right to visa-free travel). Inside the EU Mr Putin and his proxies meddle in elections and sponsor rabble-rousing parties and fake NGOs. Some governments have set up disinformation units to counter Russian propaganda.

Mr Erdogan is an even trickier customer. Turkey is a NATO ally and a candidate for accession to the EU. Its intelligence can help Europeans fight terrorism; it hosts millions of refugees who might otherwise seek sanctuary in Europe. But the president is impossible for Europeans to deal with. He compares European governments who bar him from campaigning on their territory to Nazis, and threatens to dump migrants on Bulgaria and Greece if he does not get his way. His domestic purges have nearly destroyed Turkish democracy. Some Europeans, including the Austrian government, want to end Turkey's accession talks. (Others quietly hope Mr Erdogan will end them himself.)

Dealing with any one of this trio would be hard. Together they make for a tetchy neighbourhood. Uncertainty over America's approach to Russia, for example, magnifies the threat from Mr Putin. Fears that Mr Trump might seek a grand bargain with the Kremlin have faded, but German officials cannot count on the co-operation over Ukraine that they enjoyed in Barack Obama's day. Relations among the three are unpredictable, too. In the past 18 months Turkey has shot down a Russian plane, a Russian ambassador has been murdered in Ankara, Russia has slapped sanctions on Turkey and the two countries have made friends again.

Combine the difficulties with Russia and Turkey with question-marks over America's commitment to their security, and Europeans are left with an acute sense of "geopolitical loneliness", in the words of Jan Techau of the American Academy in Berlin, a think-tank. This also unsettles neighbouring regions in which the EU is used to exerting influence. The vacuum is felt in the ex-Soviet states, where American support was once a given, but also in the Western Balkans, a dangerously unstable zone in the heart of Europe where America, Russia and Turkey all vie for influence.

Alone in a world so cold

Some take a rosier view. European diplomats like to say that Mr Trump's election and Brexit have fostered a newfound sense of cohesion in Europe. Surveys indeed find support for EU membership growing in most countries, and this week the Pew Research Centre issued similar findings for NATO.

But it is a fragile sort of unity, grounded not in confidence but in fear of the outside world. At a recent meeting EU trade council meeting, one diplomat notes with glee, the old splits between free-traders and protectionists had gone; all were united behind protective anti-dumping measures. The waves of migrants that poured into Europe from Turkey in 2015-16 saw a scramble to close borders. And it is the threat from Mr Putin, more than any scolding tweets from Mr Trump, that have spooked European governments into raising defence spending. The terrible trio are casting long shadows. ■



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Reforming health care

First, do some harm

WASHINGTON, DC

Before Republicans replace Obamacare, the White House is killing it

WHETHER or not their bid to reform health care succeeds, Republicans think Barack Obama's Affordable Care Act will founder. For years, critics of the law have said that its health-insurance markets will enter a "death spiral" in which rising premiums drive out healthy buyers, forcing premiums higher still. "Obamacare is absolutely dead" President Donald Trump told *The Economist* on May 4th.

If he is right, calamity looms. Eighteen million Americans buy insurance for themselves, rather than through an employer; it is this part of the insurance market that looks wobbly. Mr Trump thinks its collapse would force Democrats to join his reform effort. And he is putting his money where his mouth is. Indeed, his administration is part of the problem.

Insurers raised premiums in the individual market by an average of 22% in 2017. They had been caught out by the poor health of enrollees on Obamacare's "exchanges", websites that serve a little over half of the market, and that offer subsidies to low- and middle-income buyers. Nobody was sure who would sign up to the exchanges. So the law was supposed to confiscate profits if insurers priced too high, and pay compensation if they priced too low. But when insurers made losses, Republicans in Congress blocked the "bail-out". Adding to firms' woes, the "individual mandate", a requirement that every-

one buys insurance if they can afford it, or pays a fine, has been easy to dodge.

Things were meant to improve in 2018. The Congressional Budget Office (CBO) said in March that the market was stable. Standard & Poor's, a credit-rating agency, expects insurers to come close to breaking even this year. Yet in the first places to disclose insurers' plans for 2018, which must be approved by regulators, premiums are shooting up again (see chart). In four of six cases, the rise is greater than in 2017. In Maryland, insurers want to raise premiums by almost 45%.

Obamacare benefits from an automatic



brake against any death spiral. Above a cap, the government picks up the tab for the 9m buyers who receive subsidies, shielding them from higher premiums. But subsidies are no use if there is nobody selling insurance to begin with. Insurer exits have already left about a third of counties with only one seller. In April it briefly looked as if 16 counties around Knoxville, Tennessee, would have no insurers in 2018, until BlueCross BlueShield of Tennessee agreed to step in. Many states will face similarly precarious situations, especially in rural areas. On May 24th Blue KC announced that it was leaving the Kansas and Missouri exchanges, potentially leaving 25 counties with no insurer.

Who is to blame? The Trump administration's approach to the markets has vacillated. On his first day in office, Mr Trump ordered agencies to use what legal power they have to dismantle Obamacare. In response, the tax authorities weakened the individual mandate. But in April the health department penned rules designed to shore up the market. For example, it shortened the annual period during which the exchanges are open for business, thereby making it harder for people to wait until they fall ill before signing up.

Now the sabotage seems to be back on. At issue are subsidies for so-called "cost-sharing". Obamacare requires insurers to lower out-of-pocket costs, like deductibles and co-payments, for the poorest buyers. The Treasury is supposed to foot the bill (which will total \$7bn this year). Yet Mr Trump has for months threatened to withhold the cash, even describing it as "ransom money". *Politico* reports that he told advisers that he wants to cut off the cash.

The risk of this happening is destabilising the market. The Kaiser Family Foundation, a think-tank, estimates that without

▶ the payments, premiums would need to rise by 19% (before accounting for any other factors). Because insurers have to set their prices for 2018 now, before they know if the payments will be made, they are either raising premiums to avoid being caught out later, or giving up and quitting the troubled markets altogether.

It does not help that cost sharing subsidies are also the subject of a legal battle. In 2016 a federal court ruled them unconstitutional, after the House of Representatives sued to stop them. The judgment was stayed, pending an appeal that the Trump administration has now inherited. On May 22nd both sides were, for the second time, granted a three-month pause in proceedings. That is of little help to insurers, many of whom must decide on premiums for 2018 by June 21st. If the uncertainty persists until then, it is likely that many more counties will be left without any insurers.

However much damage is done, it is unlikely to force Democrats to negotiate over a new bill. On May 24th the CBO projected that the health bill approved by the House of Representatives, and soon to be considered by the Senate, would result in 23m fewer Americans having health insurance in 2026, mainly because of cuts to Medicaid, health insurance for the poor. That will be difficult for many Senate Republicans, let alone Democrats, to stomach. Before the “something terrific” that the president promised as a replacement for Obamacare arrives, he may kill a market where 18m Americans buy health insurance. ■

The Russia investigation

Each to his own

WASHINGTON, DC

What better to counter accusations of a conspiracy than a conspiracy theory?

“IT SHOULD be clear to everyone that Russia brazenly interfered in our 2016 presidential election process.” So declared John Brennan, former director of the CIA, at a hearing of the House Intelligence Committee on May 23rd, adding that he had seen intelligence of “contacts and interactions between Russian officials and US persons involved in the Trump campaign,” leaving him with “unresolved questions” about whether Russian spooks successfully recruited American helpers. He remembered a warning telephone call he made in August 2016 to the head of Russia’s spy service, the FSB, urging his opposite number to remember that, regardless of their political affiliation, “American voters would be outraged by any Russian attempt to interfere in the election.”

It is rare to hear a spy chief sound insuffi-



John Brennan, optimist

ciently cynical about the world, but Mr Brennan managed it. Both his premises turn out to be wrong. To hear a shifting cast of Republicans in Congress, conservative media stars and Trump allies tell it, it is not remotely clear that Russia interfered in the election. Polling shows most Republicans and Democrats hold irreconcilable views on something that the former head of the CIA asserts is a settled fact.

Some of the loudest voices in conservative media, including Sean Hannity of Fox News and Newt Gingrich, the former speaker of the House, have peddled a conspiracy theory that the hacking of Democratic Party e-mails during the election might have been the work of a young staffer at the Democratic National Committee, Seth Rich, who was later murdered in what the police suspect was a botched robbery.

Mr Hannity and Mr Gingrich speculated that Mr Rich might have been the victim of a political assassination, citing, among other things, a report by Fox News, which was later retracted. Mr Rich’s parents published an appeal in the *Washington Post* for people to stop spreading inventions about their son, calling this “unspeakably cruel”. That is a fact on which all should be able to agree. Yet once circulated, conspiracy theories are notoriously hard to knock down. In that sense, Mr Hannity and Mr Gingrich have already done their work.

Some solid points may be grasped amid the murk. There is a bipartisan desire to hear more from Michael Flynn, the former general who briefly served as Mr Trump’s first national security adviser, notably about his contacts with Russian officials. Mr Flynn refused one subpoena from the Senate intelligence committee, pleading his right to avoid self-incrimination. That prompted fresh Senate subpoenas aimed at consultancy businesses that he founded. House subpoenas may be next. If nothing else, lawyers will be busy. ■

The budget

Zero sums

WASHINGTON, DC

The White House’s budget goes from unrealistic to innumerate

THE Budget Act of 1921 requires the president to propose a budget, but Congress holds the power of the purse. Since Mick Mulvaney, the budget director, sketched out the Trump administration’s proposal in February, it has been clear that lawmakers would end up rewriting it. Mr Mulvaney wants immediate deep cuts across government that are unpalatable even to many Republicans. The fleshed-out version of the budget, released on May 23rd, features a new promise: to eliminate the budget deficit within ten years.

The president wants to leave Medicare, health insurance for the old, and Social Security (public pensions) untouched. As a result, achieving budget balance requires an unimaginably deep cut to so-called “non-defence discretionary” spending, which includes things like education, scientific research and diplomacy. This part of the budget would shrink by 41%, after adjusting for inflation, according to the Centre for Budget and Policy Priorities, a left-leaning think-tank. That greatly exceeds the deepest cut the administration had already proposed for 2018, of about one-third, to the State Department.

Entitlement programmes for working-age people would be slashed. Federal funding for Medicaid, health insurance for the poor, would eventually fall by nearly half (a greater cut than in the House Republicans’ health-care bill). The budget for Supplemental Nutrition Assistance, which helps the destitute buy food, shrinks by a quarter, as part of the burden of supporting the poor is shifted to the states.

Yet even all this would be insufficient to eliminate the budget deficit, which is forecast to swell to 5% of GDP by 2027 under current law (because of increasing spending on the aged). To get the budget to balance, Mr Mulvaney also assumes the economy will grow by 3%, a target that will be difficult to reach in the demographic headwinds. Fast growth fills the government’s coffers by about \$2trn over a decade.

The problem is that Steve Mnuchin, the treasury secretary, has already banked that \$2trn to pay for the tax cuts that are supposed to spark the 3% growth in the first place. Another contradiction is that the budget predicts growing revenue from the estate (inheritance) tax, which it promises to abolish. It is one thing for the executive and legislature to disagree. But the Trump administration has produced a blueprint that contradicts itself. ■

Immigration's forgotten history

Moses in the Ozarks

LAKE VILLAGE AND TONTITOWN, ARKANSAS

The ordeal of Italian labourers is a parable of race and migration in the Deep South

THE cellar is flooded and Chris Ranalli worries about snakes. From the safety of the back door, he points out the sturdy walls—two feet thick, as if to withstand Mediterranean earthquakes—and the elegantly vaulted ceilings. “They lived in the top two storeys and made wine in the basement,” explains Mr Ranalli, who now tends the 100-year-old vineyard adjacent to the house. The view from the road is anomalous: framed by Catawba trees, the façade combines northern Italian architecture and Ozark stone, seeming to belong as much to the Apennines as Arkansas.

This house tells a story that is both familiar and extraordinary, as the exploits of immigrants to America tend to be. It is a tale of struggle and success, of awful but commonplace suffering, villainy and heroes, including a dauntless priest who, like a latter-day Moses, led his flock to a new life in the mountains. It epitomises the variety behind the strip-mall, fast-food sameness of small-town America, but also the loss that can be a bittersweet corollary of progress. And, like the house itself—standing but decrepit—it is only half-remembered, the sort of amnesia that helps to explain attitudes to immigration today.

The house was built a century ago by Adriano Morsani, a stonemason from central Italy. He is captured in old photos as a moustachioed patriarch, beside a wife in a smart hat and children squinting into the sun. But the story is quintessentially American. It begins on the floodplain of the Mississippi, close to Arkansas's border with Louisiana, in the turmoil after the civil war.

Today the fields enclosed by the Mississippi and the horseshoe of Lake Chicot are punctuated by grain bins, plus a few labourers' dwellings guarded by bored dogs. The lakeshore is lined with idyllic homes with pretty jetties and private boats. A hundred years ago, when this was still the Sunnyside plantation, the villas had not been built; nor had the suspension bridge that, near one of the narrow openings between lake and river, now links Arkansas with Mississippi. The water that almost encircles the fantastically fertile, sandy-loam soil made it a natural prison camp.

In 1861 Sunnyside was among the largest, richest plantations in Arkansas. It was owned by Elisha Worthington, who scandalised white society by recognising two children he fathered by a slave. After the war, as cotton prices plunged, it belonged to John Calhoun, namesake and descen-

dant of the southern ideologue, and then to Austin Corbin: a robber-baron financier and railroad speculator, who, as a founding member of the American Society for the Suppression of the Jews, barred them from the hotel he built on Coney Island. Corbin installed a steamboat and a small railway, but, like many southern landowners, struggled to find labour. He experimented with convicts, then hit on an alternative: Italians.

The levee wasn't dry

Like many people-traffickers, then and now, Corbin had a man on the inside. His was Don Emanuele Ruspoli, the mayor of Rome, who recruited workers from Le Marche, Emilia-Romagna and the Veneto. The first batch—98 families—sailed from Genoa on the *Chateau Yquem*, a reputedly rancid steamship that arrived in New Orleans in November 1895. The families clutched contracts showing that each had bought a tract of land, on credit to be repaid in cotton crops. After a four-day journey up the river to Sunnyside, they quickly realised that they had been misled.

“The first year, 125 people died,” says Libby Borgognoni, a magnetic 81-year-old whose in-laws came over on the *Chateau Yquem* (her grandfather arrived later, after drawing the shortest straw of his family's six sons). Hot, humid and swarming with mosquitoes, Sunnyside was fecund but deadly. Today you can drive on a gravel road on top of the levee between the fields and the Mississippi, the wide, eddying riv-

er and glacial tugboats on one side, cotton on the other, red-winged blackbirds darting between them. When the Italians arrived, the barrier was lower, and floods were common. The drinking water was filthy; yellow fever and malaria were rife. Climbing into his hunting truck, Tom Fava, another local Italian-American, helps to find the disused cemetery where the victims lie. It is hard by Whiskey Chute, a stream named after a cargo of whiskey scuttled by brigands during a fire-fight.

Many of the millions of Italians who moved to America in that period, mostly to industrial cities in the north, suffered. But rarely like this. Heat and disease were the worst of it, but Corbin's terms were onerous too. The Italians spoke little English; many were illiterate. But they could see that the land had been wildly overpriced. And while many were farmers, Mrs Borgognoni admits “they knew zip about cotton”. Anti-Italian and anti-Catholic prejudice swirled: 11 Italians had been lynched in New Orleans in 1891. Mrs Borgognoni recalls that, well into the 1930s, locals would roll the car windows down and holler “Dago!” at Italian children.

In 1896, six months after the first Italians landed, Corbin died in a buggy accident near his exotic hunting lodge in New Hampshire (he was said to have startled the horses by opening a parasol). Still, a second boatload left Genoa for Ellis Island in December. Another Italian also made the trip from New York that year. Pietro Bandini grew up in Forlì, joined the Jesuits and was sent as a missionary to Montana's Native Americans. Later he moved to New York to minister to put-upon Italians. For those at Sunnyside, he was a redeemer.

Bandini protested against the conditions. Legend tells that, when he was rebuffed, he told his acolytes to wait while he scouted a better environment. During his absence he arranged to buy land in the prairies west of Springdale, near what was



A house with a story

▶ then Indian Territory and is now Oklahoma. In early 1898, 40 families junked their contracts and followed him northwards.

Precisely how they got from the Delta to the Ozarks, then a more arduous journey than it is today, is a matter of dispute. “They walked,” insists Charlotte Piazza, whose Italian-born father-in-law was in the original caravan. Some brought livestock, paying their way by doing odd jobs at Catholic churches along the route and hunting for food. Rebecca Howard, a historian at Lone Star College in Texas, thinks some travelled part of the way by train. Ms Howard’s great-great grandmother, Rosa Pianalto, buried a child at sea during the crossing on the *Chateau Yquem* and her husband shortly afterwards. She was remarried and pregnant for the Sunnyside exodus.

Towards the promised land

They would have set out, initially, across the big-skied plain of southern Arkansas. The road that crosses it today runs through Dermott, a hamlet with giant pecan and fireworks stores and an outsize “Gospel Singing Shed”, then skirts the site of an internment camp for Japanese-Americans and the state’s death-row prison. They would have crossed the brown Arkansas river at still-skyscraperless Little Rock, before turning west into its valley, where the land begins to undulate. Some Cherokee, Chickasaw and Choctaw Indians had followed that route on the “Trail of Tears”; it passes through forests and pastures and beside timber yards, lakes and creeks. They might have gulped as they approached Fort Smith, now a picturesque tourist town, then a frontier outpost renowned for a subterranean prison known as “hell on the border”.

The railway from Van Buren to Springdale, which some probably rode on, is now used for tourist excursions, plunging into the Ozarks through mountain villages that grew up around what was formerly a commercial line. The chug across the Boston



Mountains, the most rugged section of the Ozarks, with sheer cliffs and elevated trestles, must have seemed a dizzying lunge into another unknown future. At the same time, says Mr Ranalli, the winemaker, the cooler, higher landscape and temperate plateaus “felt like coming home”.

A list of the pioneers is etched on a monument outside the town hall of Tontitown, the name they chose in honour of Henri de Tonti, a 17th-century Italian explorer. There were fewer mosquitoes but, to begin with, life remained hard. They lived in abandoned log cabins while they cleared the land, stuffing the cracks with linen to keep out drafts; Morsani, the stonemason, his brother and their five children shared a barn with several other families. They survived on pasta, polenta and wild rabbits. The men went to work on railways or in mines until the crops came in. Women took jobs as housekeepers in Eureka Springs. The locals were hostile: the Italians’ first church was set alight, reportedly with Bandini inside. He survived to warn the barrackers that his compatriots were handy with firearms. (The second church was lost to a tornado.)

Tontitown prospered, largely through his ingenuity. “It was almost like he was a saint,” says Mr Ranalli of Bandini’s reputation. He was the new town’s teacher, band leader and first mayor, as well as its priest. He negotiated to bring in a railway spur. He imported vines: the soil is poorer than in the Delta, Mr Ranalli says, but the drainage better suited to grapes. He was honoured by the pope and Italy’s queen mother.

When Edmondo Mayor des Planches, the Italian ambassador, visited in 1905, Tontitown was thriving. Its residents were “happy, contented, prosperous”, des Planches wrote. “Italy, the place of their birth, was their mother, while America was their wife. They have reverence for the former, but love for the latter.” Photos in Tontitown’s historical museum capture his welcome, Stars-and-Stripes and Italian tricolours waving as he is escorted along dirt roads by locals dressed to the nines.

Bandini died in 1917, but Tontitown’s success outlived him. During prohibition, says Mrs Piazza, one of the museum’s founders, people hid wine barrels in basements and vineyards. The bars on the windows of the Morsanis’ cellar were added to comply with post-repeal rules, Mr Ranalli says. When he was a child, in the 1960s, there were still a few old-timers who spoke only Italian. They had realised the American dream, and their own: from poverty in Italy, via devastation in the Delta, to a life in which many families lived on streets that bore their names—Morsani and Ranalli Avenues, Piazza and Pianalto Roads.

That, for its citizens, is the moral of Tontitown’s story. Their pride is justified. But the travails of the Italians in Arkansas resonate in darker ways, too.



A lost civilisation

Ambassador des Planches also visited Sunnyside on his southern jaunt. The scene was much less salubrious. Three cotton factors from Mississippi leased the plantation from Corbin’s heirs, using illegal methods to import more Italians. These transplants found themselves trapped by debts: for the cost of travel (their own to America and their cotton’s to market); for ginning fees and doctor’s fees; for the necessities they were obliged to buy at exorbitant prices from the company store, all accruing interest at 10%. Some fled; some who were caught, says Mrs Borgognoni, “were taken back by the sheriff in chains”.

Over the river, across the lake

The ambassador complained, and in 1907 the Department of Justice dispatched Mary Grace Quackenbos, an intrepid investigator. Leroy Percy, one of the proprietors, tried to subdue her with both southern gallantry and bullying. Her papers were stolen from her hotel room. An assistant was given three months on a chain gang for trespassing. Nevertheless Quackenbos recommended charges of peonage, or illegal debt servitude. They were never pursued: it helped that Percy had joined Theodore Roosevelt for the famous hunt on which the president inspired the Teddy Bear by declining to kill one. (Percy wound up in the Senate, where he served on an immigration commission.)

Italian migration to the region dried up, and many of the Sunnyside families dispersed across the Delta, joining small Italian communities that had sprung up on either side of the river, along the Gulf coast, down in Louisiana’s sugar-cane territory and up to Tennessee. Clarksdale, Friars Point, Indianola: their destinations evoke a better-known Delta culture, the blues lore of Muddy Waters, Robert Johnson and B.B. ▶▶

King. Across the river from the plantation, in the part of Greenville known as Little Italy, there is still an Italian club, where members gather to play bocce in pits overlooked by miniature bleachers. On the Arkansas side, at what was once New Gascony, an overgrown Catholic cemetery lies at the end of a dusty track, surrounded by soyabean and cornfields (see picture on previous page). All that is left of the flood-ravaged settlement, says a farmer, are a few houses beyond the bayou. The fading Fratelli and Mancini headstones stand like hieroglyphs of a lost civilisation.

Some Sunnysiders, however, simply hopped across the water to Lake Village—today a seemingly typical Delta town, wedged between the nondescript highway and Lake Chicot and bisected by a railway track, beside which squats a cotton gin. Our Lady of the Lake church, and the museum Mrs Borgognoni oversees in its old rectory, reveal its nuances. All the Italian locals once made *prosciutto*, *lonza* and *salsiccia*, she remembers; “church was the biggest thing in the world.” As a child she picked possum grapes in the sloughs and levees to make wine in the cellar of her double-shotgun house. Squirrels were cooked in *fornos*, or brick ovens. There was a hog roast on the fourth of July and a celebratory spaghetti dinner in March. People played accordions and mandolins, which some think contributed to the blues.

If the cultures of Italians and blacks in the Delta overlap, so did their experiences. “We ate together, we played together, we worked in the field together, we sang together,” says Mrs Borgognoni. “It was a different world.” Paul Canonici, a former priest and author of “Delta Italians”, a charming collage of family histories, remembers, as a child, peering through the windows of a black church at ecstatic worshippers, and watching black baptisms in the bayou. (In the mid-1920s Klansmen besieged his family home in Boyle, Mississippi, shooting the dog.) Italians, after all, were a marginal solution to the problem of labour in the inhumane conditions of the Deep South. Not just during slavery, but in the brutal ruses deployed after emancipation, from convict-leasing to the debt-trap of sharecropping, most victims were black.

The Italians’ story, in fact, is a sort of shadow version of African-Americans’, the hardship milder and the ending sweeter. That they escaped the prejudice they first aroused was in part because their skin was acceptably white. As Ms Howard, the historian with Tontitown roots, notes, they could enlist external allies—the Catholic church, even the Italian government—that their black neighbours lacked. The Italians, in truth, are a blip in the grim saga of plantation agriculture, if an enlightening one.

If the story of the Morsani house shows that aspects of slavery lingered on, it is also a reminder that what is often thought of as

a modern-day kind—based on debt and intimidation—is far from new. And it discloses the mechanism by which some such ordeals come, selectively and misleadingly, to be redescribed as triumphs.

Consider that church-burning in Tontitown. In early accounts it seems that bigoted white locals were responsible. Later, after the Italians were embraced, the culprits changed; now they were Native Americans, who had ridden over from Indian Territory. Through such collective editing, a small part of America’s jagged prehistory is sealed and separated from the trials of immigrants today. Always known to be patriotic and thrifty, the Italians, in this retelling, were different. It isn’t only them. Along with corn bins, cotton gins and Baptist churches, the Arkansas plains, like much of rural America, are littered with places that hint at a hazy cosmopolitan past: Moscow, Dumas, Hamburg.

Forgive and forget

“Have they forgotten how we got here?” asks Paul Colvin, Tontitown’s mayor, of today’s xenophobes. Some people have. Mr Colvin, the first mayor with no Italian connection, himself personifies a wider change, at once routine in immigrant communities and poignant. Even as they cooked the old recipes, the settlers hurried to assimilate, learning English and signing up for military duty. Their descendants married *americanos* and moved away. Each generation remembers less. Meanwhile, says Mr Colvin, “small towns are getting swallowed by the big towns”, as Walmart and other large employers turn places like Tontitown into dormitory suburbs. Land prices are rising; people are selling up, outsiders replacing them.

Tontitown still holds an annual grape festival, which once marked the grape harvest and by tradition includes a feast of the signature dish, spaghetti and fried chicken. But Mr Ranalli’s is the only commercial

vineyard left. “There’s very few full-blooded Italians that still live in this town,” he says. Not many people care about their heritage any more, agrees his daughter Heather, who runs a winery that sells his fine wine. “It’s dying out, and that’s the truth,” says Mrs Piazza, glumly.

Down in Lake Village, says Mr Fava, the good Samaritan with the hunting truck, “the guys who were slaves are now the farmers.” Much of what was once Sunnyside is now owned by Italian-Americans, as are many of the posh homes on the lake, with their fleet of ride-on lawnmowers, as families return to the land from which their forebears fled. As often happened in distant enclaves in pre-internet days, the Italianness ossified—the dialect baffling actual Italians when they interacted with Lake Villagers—then withered, like Tontitown’s. The brick ovens and wine cellars are gone. Much of the old cemetery was ploughed over, the gravestones and crosses allegedly tossed into Whiskey Chute among the half-submerged cypress trees and nesting egrets. The priest at Our Lady of the Lake is a genial Nigerian missionary, Theo Okpara. Does he speak the language? “Nada,” replies Father Okpara, who ministers to more Hispanics than Italians.

Like the shell of the Morsani house, though, some traces remain. Regina’s lake-side pasta shop continues to sell old-style *muffalettas*, *cannelloni* and *parmigiana*, as well as homemade pasta—“real thin, the way you like ‘em”, says a non-Italian customer. And Mrs Borgognoni still recalls the songs she learned, aged six, picking cotton beside her grandmother. Her life had been hard, but, says her granddaughter, “when she was happy she would lift her skirt and dance the *saltarello*.”

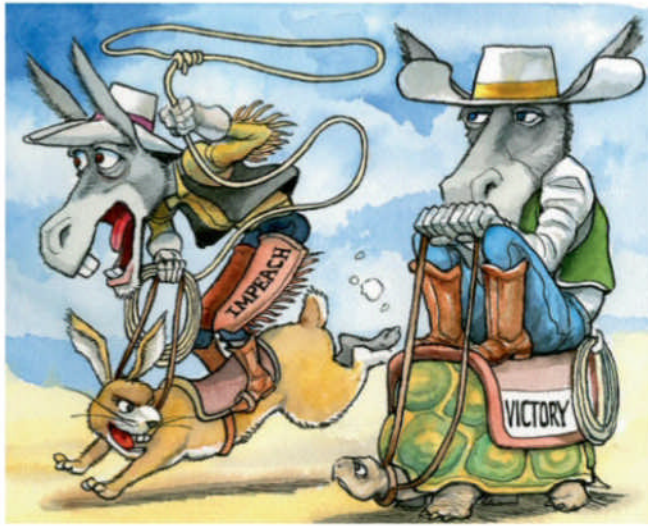
One of the songs, Mrs Borgognoni says, is about a young Italian soldier whose wife dies when he is away on duty; he returns to kiss her for a final time. The tune is sad but beautiful. She closes her eyes and sings. ■



Cannelloni on the shore of Lake Chicot

Lexington | The impeachment delusion

Schemes to topple the president quickly would hurt the country



AMERICA has elected a man of frightening impatience as president. That is no reason for Donald Trump's opponents to copy him. Four months into the Trump presidency his sternest critics seem ready to tear the country apart, just to see him gone. Democrats and activists on the left, including members of Congress, are already calling for his impeachment. They revel in leaks that batter the White House almost nightly and yearn for the wheels of justice to spin as fast. Their goal is a speeded-up Watergate, fit for an on-demand age. On the Trump-sceptic right pundits call the president a tyrannical "child upon the throne". Some see the 25th Amendment to the constitution as a shortcut to adult supervision—just as soon as the vice-president, cabinet and a two-thirds majority in Congress agree that Mr Trump is "unable to discharge the powers and duties of his office".

Leave aside, for one moment, the legal and political hurdles that could delay the impeachment or dismissal of Mr Trump for years, if not for ever. If opponents did somehow succeed in toppling him before most Americans are ready to endorse such a step, they risk splintering the same democratic order that they want to save. It is not enough to point to opinion polls that show public approval of the president slipping each week. Though pro-Trump sentiment is softening, the proportion of the country that is implacably opposed to him still falls some way short of a majority. A revealing poll taken in mid-May by YouGov—the CBS News 2017 Nation Tracker—found that 40% of Americans are convinced opponents of Mr Trump, while 19% of respondents are unwavering supporters and 22% will continue to back him if he delivers what they want. The final 19% would reconsider their dislike of Mr Trump if he "does a good job". The poll contains a further ominous note: when the president is criticised, 79% of his supporters also hear an attack on "people like me".

This is not to argue against investigating whether Mr Trump or his aides colluded with Russia, a hostile foreign power. If the president is guilty of high crimes, he must face the consequences. But impatient foes want him gone now, before millions of Americans have even started paying attention to Russian headlines. Rush this, and half the country may think their president has been stolen from them. America is not just more tribal than it was during Watergate: conservatives have spent years training their

side to distrust anything the press says.

Still some Trump opponents would not wait. They say the president is a menace now, and see no merit in delaying the moment when his voters finally grasp that they are a demagogue's dupes. Here is an alternative suggestion: take a deep breath, avoid hinting that Trump supporters are stupid, and let them work out for themselves that he is not very good at his job.

Happily, there are recent, real-world examples of patience working, and snarling populists losing office by outstaying their welcome. One of the most instructive involves Joe Arpaio, a law-and-order showman defeated last year as he sought his seventh term as elected sheriff of Maricopa County—a sprawling, sun-baked tract of Arizona that includes the city of Phoenix and is home to nearly 4m people. A concise explanation of Mr Arpaio's defeat is that locals grew weary of his distracting antics, even if the sheriff was a star of conservative talk radio and tv.

Mr Arpaio, who styled himself "Sheriff Joe" and "America's Toughest Sheriff", was an authoritarian impresario. He housed county prisoners outdoors in tents, even as temperatures reached 145°F (63°C), made them wear pink underwear and put them in chain gangs. He recruited a posse of volunteer sheriff's deputies, who sport police uniforms and roar about in patrol cars. When that felt old, in 2011 Mr Arpaio assigned a five-member "cold-case posse", financed by conservatives across the country, to investigate whether Barack Obama had faked evidence of his birth in America. While lesser rivals acquired military hardware from the Pentagon, Mr Arpaio secured a tank (actually a self-propelled howitzer). He made the action film star Steven Seagal a posse member and let him drive that tank through a local man's garden wall in search of illegal cockfighting. Sheriff Joe's fans cheered when he ordered immigration sweeps that targeted people who appeared to be non-white or Hispanic. He was an early Trump backer, declaring: "Everything that I believe in, he believes in."

Hey Joe

By 2016 many conservatives had stopped chortling. County taxpayers had by then paid tens of millions of dollars in legal fees and settlements for lawsuits against the sheriff's department, including for prisoner deaths. Mr Arpaio faced charges for criminal contempt, after allegedly defying court rulings to stop racial profiling. The Pentagon asked for its hardware back after several weapons were lost. Amid this dysfunction a veteran Phoenix police sergeant, Paul Penzone, ran for sheriff as a Democrat and won. He did not call Arpaio supporters bigots. He told them that their money had been squandered and that law enforcement had suffered. That back-to-work message won Mr Penzone 158,000 more votes than Hillary Clinton received in Maricopa County, as he picked up support from Republicans who were either embarrassed by Mr Arpaio, or decided that he was a blowhard who bored them. Sheriff Joe's gimmicks "weren't doing it for him any more", summarises David Berman, a political scientist at Arizona State University. At some point, "people say, can you do the job?"

As for Mr Trump, some will stick by him regardless. But others may conclude that the president is a do-nothing blowhard in his turn. That might open a path for a problem-solving Democrat to defeat the president in 2020. If Mr Trump's poll numbers are bad enough Republican grandees might offer to carve his face on Mt Rushmore, if he retires without seeking a second term. Making Mr Trump a martyr could tear the country in two. Letting voters tire of him might be the least-bad outcome. ■



Brazil's political crisis (1)

Dangling man

BOA VISTA

Michel Temer is in serious trouble. But he has reserves of strength

“IF THEY want, let them bring me down!” So declared Brazil’s president, Michel Temer, in a newspaper interview on May 22nd. He is the second president in the space of a year who is fighting to stay in office in the face of allegations of wrongdoing and dismal poll ratings. His predecessor, Dilma Rousseff, was impeached in 2016 on a technical violation of public-accounting law. The allegations against Mr Temer are far graver, but his chances of remaining president may be brighter. Whether he stays or goes, the accusations against him are momentous. The blow to his prestige and influence will delay, and might destroy, vital reforms to Brazil’s economy, which is only beginning to emerge from its worst-ever recession.

Mr Temer’s woes began on May 17th when *O Globo*, a newspaper, reported that, on a tape recorded by Joesley Batista, a billionaire businessman, he is heard endorsing payment of hush money to a politician jailed for his role in the Petrobras scandal. This originally centred on the state-run oil company but has expanded beyond it. In a related sting, police filmed Rodrigo Loures, a congressman from Mr Temer’s Party of the Brazilian Democratic Movement (PMDB) and formerly his right-hand man, accepting a bag with 500,000 reais (\$153,000) in cash. Mr Temer solicited millions in irregular payments, claimed Mr Batista and a subordinate.

Mr Temer has protested his innocence

in speeches and interviews. He portrays himself as the victim of a “perfect crime” committed by Mr Batista, who framed him in exchange for near-total immunity from prosecution (see box, next page). Mr Temer’s fate is in the hands of the courts, his allies in congress and public opinion, any one of which could bring him down. The evidence against him is shocking but inconclusive. Mr Temer has strengths that his hapless predecessor did not.

Trashing the tape

Edson Fachin, a judge on the supreme court, which tries sitting politicians, has authorised the attorney-general to open a criminal investigation into Mr Temer, Mr Loures and Aécio Neves, a senator from the centre-right Party of Brazilian Social Democracy (PSDB), who was caught in another Batista-related sting. Formal charges may be filed soon. Mr Temer’s lawyers contend that the tape is “worthless”. Their study of it turned up 70 “discontinuities”, which may suggest tampering. Mr Fachin has ordered a forensic examination.

Lawyers will poke holes in other evidence, including the plea-bargain testimony by Mr Batista and his brother, Wesley, co-owners of JBS, a giant meat exporter. Some of the Batistas’ allegations refer to wrongdoing that took place before Mr Temer became president. In such cases, he has immunity. But legal niceties will not help if he cannot scrub off the mud he ap-

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parently spattered on himself. When Joesley Batista boasts on the tape of having two judges and a prosecutor in his pocket, Mr Temer merely murmurs, “great, great”.

The political calculus of his allies in congress could be as important as the weight of the evidence, and will partly depend on it. His most important friend is Rodrigo Maia, the speaker of the lower house, who has signalled that he will shelve the dozen impeachment motions that have been filed so far. Two medium-sized parties have quit the PMDB-led coalition, but their ministers have clung on to their cabinet posts. The PSDB, the biggest coalition partner, seems unsure what to do.

They are hesitant in part because Mr Temer has no clear successor (he was Ms Rousseff’s vice-president, but does not himself have a deputy). Mr Maia will take over temporarily if Mr Temer is impeached or indicted. If he leaves office definitively, congress will have 30 days to choose a successor to serve the rest of his term, which ends at the end of next year.

That person would carry the stigma of election by a congress mired in corruption. Any politician with the skill to pilot reforms through the legislature is, like Mr Maia, already under investigation, or soon could be. Other potential successors are Cármen Lúcia, the respected chief justice of the supreme court, and Henrique Meirelles, the finance minister, who has the nous to serve as president. But Ms Lúcia is not a politician and Mr Meirelles was chairman of J&F, the Batistas’ holding company. Nelson Jobim, a former minister, worked for BTG, a bank whose founder was arrested in the Petrobras affair.

Unlike Ms Rousseff, Mr Temer is not loathed by the elite. Bosses know they have a big stake in the continuation of his policies, especially an overhaul of pensions and a reform of rigid labour laws. ►►

▶ These should encourage interest rates, already falling, to come down further, and lift employment. Mr Meirelles now concedes that the reforms will be delayed. The stockmarket plunged and trading was suspended after the disclosure of the Batista tape. On May 22nd S&P warned that it might downgrade Brazil's credit rating.

Mr Temer also arouses less passion than Ms Rousseff did among middle-class voters. Protests in 2015 and 2016 by prosperous urbanites, galvanised by anger over the Petrobras scandal, helped drive her out of office. Those people are reluctant to join left-wingers in lambasting Mr Temer and his pro-market reforms. Turnout at anti-Temer protests on May 21st was low. Participation may wane after protesters set a ministry ablaze in Brasília on May 24th.

The final arbiter of Mr Temer's future

may turn out to be the electoral tribunal. Much of the money sloshing around from Petrobras, JBS and others may have financed the election of Ms Rousseff and Mr Temer in 2014. On June 6th the tribunal will begin deliberations on whether to annul the results. Until last week, analysts doubted that it would risk instability by doing that. But its politically savvy judges may now believe that Mr Temer's continuation in office is the greater threat. The PSDB is reportedly trying to make its decision easier by brokering an agreement on a successor to Mr Temer. Speculation focuses on Mr Jobim and Tasso Jereissati, a sensible PSDB senator from the state of Ceará.

Mr Temer could slow things down by appealing against the tribunal's ruling. But if his allies turn against him, his defiance could crumble. ■

A Canadian culture war

Cross-fertilisation or theft?

OTTAWA

Writers on the wrong side of a debate lose their jobs

ANYONE, anywhere "should be encouraged to imagine other peoples, other cultures, other identities", wrote Hal Niedzviecki in the spring issue of *Write*, an obscure Canadian literary magazine. For that apparently innocuous observation, he lost his job as the publication's editor. Mr Niedzviecki was defending "cultural appropriation", the use by artists and writers of motifs and ideas from other cultures. He suggested an "appropriation prize" for creators who carry out such cross-cultural raids. In a special issue of the magazine dedicated to indigenous writers, that was offensive, his critics said.

Mr Niedzviecki's supporters were also made to suffer. A journalist at the Canadian Broadcasting Corporation was demoted after he offered on Twitter to help finance the prize. The editor of *Walrus*, a better-known magazine, decried "political correctness, tokenism and hypersensitivity" in cultural and academic bodies. After a social-media backlash he, too, resigned. In April a gallery shut an exhibit of the work of Amanda PL, a painter inspired by the style of Norval Morriseau, an indigenous artist.

Mr Niedzviecki has reopened an old debate. Cross-fertilisation is fundamental to the creative process. This article, for example, is written in Roman letters and uses Arabic numerals. However, many indigenous Canadian intellectuals demand extra sensitivity. Some particularly object to ▶▶



Appropriately dressed

Brazil's political crisis (2)

The fabulous Batista boys

BOA VISTA

The meat-mongers whose testimony could end Michel Temer's presidency

JOSÉ BATISTA SOBRINHO helped build Brasília. In 1957 his meat business supplied canteens that fed workers constructing Brazil's modernist capital. Now his two youngest sons, Wesley and Joesley, are bringing the place down. As the bosses of the company their father founded, renamed JBS in his honour, they are at the centre of a scandal that may force a president out of office for the second time in a year (see main story).

JBS is the world's biggest beef exporter. Its revenues rose from 3.9bn reais (\$1.8bn) in 2006 to 170bn reais last year, helped by China's appetite and Brazil's enthusiasm for national champions. From 2007 to 2015 the development bank, BNDES, injected into Batista enterprises more than 8bn reais in capital and loans. Most of it was to help JBS buy rivals, including American brands like Swift and Pilgrim's Pride. J&F, the family's holding company, has diversified into non-meat businesses, including Havaianas, which makes fashionable flip-flops.

As JBS was buying up rivals, the Batistas were buying politicians. The company's declared campaign donations swelled from 20m reais in 2006 to nearly 400m reais in the election in 2014; in that contest it gave more than any other firm. In the past decade the brothers have bankrolled 1,829 candidates; their largesse helped elect a third of the current congress. Little of it was legal. The Batistas have confessed that almost all the declared cash, plus millions paid under the table, was bribes to politicians specifically to further J&F's interests.

In the past year the Batistas' firms

have faced five criminal investigations. The latest probes J&F's dealings with BNDES, which provided finance at the behest of paid-off politicians.

To save their enterprises, and themselves, the brothers approached prosecutors investigating the metastasising bribery scandal centred on Petrobras, the state-run energy company. The bargain they struck was their niftiest deal yet. In exchange for providing evidence of wrongdoing by major political figures—including, possibly, President Michel Temer—they secured near-total immunity. Unlike Marcelo Odebrecht, boss of a construction firm at the heart of the Petrobras allegations, neither Batista will spend a day in jail or under house arrest. Free to leave Brazil, Joesley has already moved to his posh New York flat with his wife, a former television presenter, and their child. He and Wesley each agreed to pay fines of 110m reais, which leaves them both billionaires.

The meat-mongers are not completely off the hook. JBS may face bribery probes and lawsuits from holders of the company's securities in the United States. Brazil's markets watchdog is looking into possible insider trading. In the weeks before May 17th, when details of their explosive testimonies leaked to the press, the Batistas sold more than 300m reais' worth of JBS shares and bought dollars. The shares have lost a third of their value since then; the dollar jumped by 7% on the next day. The brothers and their firms deny allegations of insider trading. Apparently, they are blessed with their father's foresight.

▶ white people borrowing (or “stealing”) elements of their culture.

For some, such borrowing evokes memories of centuries of domination by the British and “white settlers”, who took the land of indigenous peoples, tried to force them to assimilate through residential schools and excluded them from mainstream cultural life. Members of indigenous “First Nations” were not allowed to vote until 1960 unless they renounced their Indian status. Robert Jago, an indigenous writer, says that cultural appropriation leads to “the hypersexualised view” of indigenous women, the myth of the drun-

ken Indian and the “football-mascot-inspired stereotype of the violent warrior”.

The argument is now raging on talk shows, in newspapers and especially on social media. Some think it has been inflamed by Donald Trump, who encourages Americans who object to political correctness to say so. “This is the first and probably not the last intrusion” of Trumpian attitudes into Canada’s cultural debate, says Conrad Brunk, co-author of a book on cultural appropriation. Canada’s indigenous peoples, for their part, have also become more assertive. “We’re in a new paradigm” because of social media, says Jesse Went-

an Ojibwe from the Serpent River First Nation, borrowing words from Latin, Greek and English. “We don’t have to occupy chairs in mainstream news media to have our voices heard.”

That is welcome, but the silencing of other voices is not. The hounding of journalists from their jobs chills free speech. Politely, Mr Niedzwiecki admits that his defence of cultural appropriation was “a bit tone deaf”. But he should not apologise too much. He provoked a debate on an important and many-sided issue. Canada prides itself on its diversity of peoples. A diversity of ideas matters, too. ■

Bello | Welcome back, Argentina

The return of honest inflation numbers is more than a mere statistic

SOME readers of *The Economist* may be numbed by statistics. To many others, they are the water of cognitive life. Each week at the back of this newspaper we publish official data on 42 of the largest economies in the world—with one exception. Five years ago we stopped publishing the inflation figure for Argentina produced by the government of President Cristina Fernández de Kirchner because we, and many others, thought it was bogus. We substituted an inflation number drawn up by PriceStats, an international data service. A year later the IMF followed our lead, formally censuring Argentina for “inaccuracy” in its data.

This week we are delighted to resume publication of the official inflation number for Argentina. One of the first things that Mauricio Macri did after he was elected as the country’s president in November 2015, defeating Ms Fernández’s candidate, was to restore the professional independence of INDEC, the statistical office. He charged it with drawing up a new, accurate inflation index. This month marks a year since this index was launched. It shows that inflation in greater Buenos Aires in the 12 months to April was 27.5%. That figure is uncomfortably high, but refreshingly honest. Under Ms Fernández, INDEC found that inflation in 2008-13 averaged about 10% a year, between a third and half of private estimates. Under pressure from the IMF, INDEC raised its estimate to 24% in 2014, but private calculations were higher still.

High inflation was part of the scenery in Latin America until the 1990s. That was in large part a consequence of inequality and populist politics. Small but powerful economic elites resisted tax increases, so governments resorted to printing money to fulfil their campaign promises to the working and middle classes. The rulers re-



lied on “money illusion”: that wage earners would notice their rising nominal salaries rather than the erosion of their purchasing power. High inflation discouraged saving and contributed to inequality—the rich could more easily hedge against it than the poor.

Taming inflation by cutting fiscal deficits and opening economies to trade and competition was an important achievement of the much-derided Washington Consensus in Latin America. A simple cross-country average of inflation in the region fell from 1,206% in 1989 to 4.8% in 2006. But as left-wing and populist governments returned in the 2000s, inflation rose again in Venezuela, Argentina and even in Brazil. What was notable about Ms Fernández was her apparent attempt to deny it by publishing hogwash statistics. At the same time, she threw up protective trade barriers, ran large unfinanced fiscal deficits (despite enacting big tax increases) in the midst of a commodity windfall and subsidised energy and transport tariffs to the tune of 4% of GDP.

Mr Macri has had swifter success in restoring the integrity of Argentina’s statis-

tics than he has had in correcting the other economic distortions that Ms Fernández bequeathed him. The new official index broadly agrees with the many private ones that have sprung up. INDEC will launch a national index in July.

No longer concealed, inflation is proving stubborn. The central bank, whose independence has also been restored under Federico Sturzenegger, its new governor, set a target of 12-17% this year. It is not going to meet it. After tumbling in the second half of last year, inflation has crept up this year. That is partly because the government has raised electricity and gas tariffs, and partly because wage settlements by the powerful trade unions are averaging around 20%.

The bank is doing its best to hit the target: it raised its benchmark interest rate last month (from 24.75% to 26.25%) even though economic growth is still slow. Mr Macri is engaged in a juggling act. He wants to reduce the fiscal deficit (which he is financing with foreign loans), but withdrawing Ms Fernández’s subsidies means price rises in the short term. He wants to get inflation down but needs the economy to be growing faster before an important mid-term election in October, which his government cannot afford to lose. Having initially opted for a swift economic adjustment, this year he has adopted a more gradual approach.

Argentines can reasonably disagree over whether Mr Macri is making the right choices. But at least they are not being kept in the dark about the real state of the economy. Many appear to appreciate being treated as adults: tens of thousands of people took part last month in a semi-spontaneous demonstration to support the government. Low inflation is good policy. An honest inflation index is a democratic right.



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Donald Trump visits the Middle East

Mission not accomplished

JERUSALEM AND RIYADH

The president's first foreign outing has achieved little so far, though at least it avoided blow-ups

AS DONALD TRUMP set off on his first foreign trip since taking office, to the world's most unstable and dangerous region, some observers were worried. As it turned out, though, the Middle Eastern leg of Mr Trump's nine-day maiden voyage was one of the less tumultuous periods of his presidency so far. Nonetheless, with a further tilt towards Saudi Arabia and the Sunnis, and against Iran and the Shias, the president has increased, not smoothed, the tensions that so bedevil the area.

In Riyadh, where he arrived on May 20th, Mr Trump attempted to reset his relationship with the Muslim world, strained by his own Islamophobic rhetoric. "I think Islam hates us," he said last year, after calling for a blanket ban on Muslims entering America. But in a speech on May 21st he declared that the fight against extremism is "a battle between good and evil", not "between different faiths". Blaming most of the region's problems on terrorism, he urged his audience of Sunni Muslim leaders to "drive out" extremists. "Drive them out," he repeated, five times.

The message went down well. The audience, consisting mostly of autocrats and dictators, spouted gushers of flattery. "You are a unique personality that is capable of doing the impossible," said Abdel-Fattah al-Sisi, Egypt's president. "I agree," said Mr Trump, whose mood may have been lifted by the gigantic portraits of himself that his hosts had put up all around Riyadh. He

made clear that, unlike his predecessor, he would not press Arab leaders on such matters as human rights, so long as they see eye to eye with him on security and commerce. "We are not here to lecture," he said.

Mr Trump announced the sale of military equipment worth \$110bn to Saudi Arabia, the opening of a new centre in Riyadh to combat extremist ideology and another that will target terrorist financing. Yet behind the smiles, there is tension. The kingdom, which Mr Trump once called "the world's biggest funder of terrorism", has spent billions of dollars spreading its ultra-conservative brand of Islam. Some say that Mr Trump's strategy is short-sighted. Arab autocrats offer stability, "but only by brutal suppression of dissidents, whose resentment ultimately helps breed more terrorists", says Mustafa Akyol of Wellesley College in America.

Though he pleased his hosts, Mr Trump also inflamed sectarian tensions by blaming their rival, Iran, for most of the Middle East's problems. "From Lebanon to Iraq to Yemen, Iran funds, arms and trains terrorists, militias and other extremist groups that spread destruction and chaos across the region," said the president. Much of that criticism is warranted, but the fact remains that most of the jihadists in the Middle East are Sunni, not Shia. Moreover, as Mr Trump arrived in Riyadh, Iranians re-elected Hassan Rouhani, a relative moderate, as their president. "Iran—fresh from

real elections—attacked by [Mr Trump] in that bastion of democracy & moderation," wrote Iran's foreign minister on Twitter, referring to Saudi Arabia.

In many ways, Mr Trump's trip to Riyadh reflected an attempt to break with the foreign policy of Barack Obama, who in 2015 struck a deal with Mr Rouhani's Iran to curb Iran's nuclear programme in exchange for the lifting of sanctions. The realignment upset the Saudis, who gave Mr Obama a cool welcome on his last trip to the kingdom. By contrast, Mr Trump was greeted by King Salman with lavish pageantry involving dancing, swords and a mysterious glowing globe (pictured).

In practice, though, less has so far changed that it might seem. Mr Trump has not yet ripped up the nuclear deal, which he once called the "worst deal in history", but which his administration says Iran is honouring. Just before he arrived, he extended a waiver on (separate) sanctions on Iran. And, like Mr Obama, he said he would avoid "sudden interventions" in the region. Many of the arms sales celebrated by Mr Trump had actually been negotiated under his predecessor. Mr Obama, though, had put much of the package on hold, fearing that American arms would be used to kill civilians in Yemen and might accelerate the arms race with Iran.

Is that all there is?

Mr Trump then moved on, arriving in Israel on May 22nd. Even before his inauguration, he had spoken of his desire, as a master negotiator, to deliver what he calls the "ultimate deal"—peace between Israel and ▶▶

Writer wanted: The Economist is looking for a writer to cover the Arab world, based in Cairo. Candidates should send a CV, a cover letter and a 600-word original article that could run in our Middle East and Africa section to cairocorrespondent@economist.com. Deadline for entries is 23rd June.

▶ the Palestinians. However, he supplied no detail as to how this might be achieved. Not once during his trip did he mention in public the “two-state solution”, under which Israel and Palestine would recognise each other as sovereign entities.

He said nothing about Israel’s settlement-building in the occupied West Bank, nor about its iron control over the lives of Palestinians there and in the beleaguered Gaza Strip. In Bethlehem Mr Trump lectured Mahmoud Abbas, the president of the Palestinian Authority, that “peace can never take root in an environment where violence is tolerated, funded and even rewarded.” In his speeches in Jerusalem he made do with vague platitudes about how “both Israelis and Palestinians seek lives of hope for their children.”

Israeli and American officials insisted that in closed talks the president had insisted that he is serious about making peace. But for now at least, he seems to be content with letting the two sides work out the details for themselves. Many observers, perhaps naively, had expected some sign of increased pressure on Israel to make compromises. Mr Trump gave no hint of that.

The president did make one concession to the Palestinians, which will have come as a disappointment to the more hawkish elements in the ruling coalition. He pointedly ignored requests to recognise implicitly Israeli sovereignty over the eastern part of Jerusalem, captured 50 years ago next month. Israeli officials were not invited to join him on a visit to the Church of the Holy Sepulchre and the Western Wall in Jerusalem’s Old City. Neither did he show any indication of being ready to fulfil a campaign promise to move America’s embassy from Tel Aviv to Jerusalem.

Still, there was plenty in Mr Trump’s statements, during a visit that lasted little more than 24 hours, that was music to Mr Netanyahu’s ears. He extolled “the unbreakable spirit” and “the accomplishments of the Jewish people”; and spoke of Israel and America’s “shared values”. He promised that while “Iran’s leaders routinely call for Israel’s destruction—not with Donald J. Trump. Believe me.”

Going off-script in one of his speeches, Mr Trump contrasted his support for Israel with the previous administration’s coolness, saying it was a “big, big, beautiful difference”. During Mr Obama’s presidency, despite his rocky personal relationship with Mr Netanyahu and their deep disagreement over the Iran deal, Israel enjoyed unprecedented levels of American military aid and intelligence-sharing. But the Obama administration also worked tirelessly to push forward the diplomatic process with the Palestinians, without result. The lavish praise and unspecific promises of Mr Trump probably mean that Mr Netanyahu can now give his heels a rest from digging in. ■



Iran’s election

Triumph of the liberals

Iranians voted for rapprochement with the West and more civil liberties. But the clerics and Donald Trump may have other plans

WHILE the leader of the free world bopped with sword-waving Arab princes and denounced the ancient Persian enemy, Iranian voters on the other side of the Gulf danced for detente. Men and women packed the streets country-wide, revelling most of the night. They were celebrating the re-election of President Hassan Rouhani. They cheered his vision of opening Iran to the West and his success in trouncing Iran’s isolationists and hardliners, championed by Ebrahim Raisi, who mustered only 38% of the vote on May 19th against Mr Rouhani’s 57%. In local elections on the same day, the hardliners were beaten in all Tehran’s 21 seats.

Defeat is growing familiar to the hardliners. The last time they won was in the parliamentary election of 2012, and that they owed to a mass boycott by reformists. This time the hardliners campaigned particularly hard because they sensed they were not only picking a president, but also, perhaps, the next supreme leader (a more powerful post). The incumbent, Ayatollah Ali Khamenei, is 77. This presidential election may be his last. Formally, the Assembly of Experts selects a successor from among its 88 Muslim scholars. But the last time it did so, in 1989, it picked the then president. “The vote isn’t just about four years of presidency,” says a confidant of Mr Khamenei. “It’s about Iran’s future for 40 years.” Mr Khamenei is said to favour Mr Raisi as his successor; this will be hard-

er to pull off following his drubbing.

Overcoming past divisions, the hardliners united behind a single candidate. They packed rallies with the *basij*, their youth militia, and brandished Hizbullah flags aloft. Mr Rouhani got out the vote by sounding more liberal. In the last days of the campaign he tongue-lashed the religious zealots. He needed a hefty majority, he told voters, to promote civil liberties and to hold to account the Revolutionary Guard, the judiciary, the state media, powerful clerical charities and all who “shame freedom”. Iran’s pious conservatives, he said, have “only executed and jailed, cut out tongues and sewed mouths shut.” This message won people over. He captured more votes than any previous president (if you ignore the rigged contest in 2009), almost 5m more than he won in 2013.

Can Mr Rouhani now fulfil his promises? Within hours of his victory, reformists whom the authorities had detained in the run-up to the election were released. His advisers also predict that he will appoint his first female minister, and perhaps even the Islamic Republic’s first-ever Sunni one. More radical change as well, they say, could be coming. Certainly, Mr Khamenei might have been happier had Mr Rouhani won by a less convincing margin.

But if Mr Rouhani seeks to rise beyond the presidency, he will also need the deep state’s support. Having renewed his popular mandate by playing the radical, Mr Rou-

hani is too wily a politician not to revert to acting the clerical stalwart. Advisers are already citing his credentials: deputy commander of the army in the Iran-Iraq war, secretary of the national security council for 16 years and, as president, its chief for four. In one of his first post-election addresses, he called for Iran to test-launch more missiles. Perhaps the hardliners' best hope is Donald Trump. Nothing helps them like a real enemy. They remember how, six months after the re-election of another reformist, Muhammad Khatami, America's then president, George W. Bush, pronounced Iran a member of the "axis of evil". That triggered a confrontation which helped lead, in 2005, to the election of Mahmoud Ahmadinejad, an undoubted hardliner. Mr Trump, visiting Saudi Arabia and Israel, has promised confrontation and "beautiful military equipment" for Iran's regional rivals. American financial sanctions on global investment, too, keep the hardliners from fretting too much about an imminent influx of Western competition and soft power. God willing, they say, the economy might flop; battles might resurrect the Great Satan; and four years hence they will recover power. ■

Islamic State in Libya

Down but not out

RIYADH

The jihadists have retreated to the desert, where they are a potent threat

LIKE their comrades in Iraq and Syria, the jihadists of Islamic State (IS) in Libya were in retreat earlier this year. Their branch, considered the most lethal outside the Levant, was pushed out of Sirte, its coastal stronghold, in December and hit hard by American bombers in January. The blows seemed to dispel the idea that, as the core of its "caliphate" crumbled, Libya might serve as a fallback base for IS.

But although the jihadists are down in Libya, they are not out. And they may have international reach. Many of the fighters have regrouped in a swathe of desert valleys and rocky hills south-east of Tripoli. British police are probing links between Salman Abedi, the suicide-bomber who murdered 22 people at a concert in Manchester on May 22nd, and IS, which claimed responsibility for the attack. Mr Abedi was in Libya recently; his brother and father were arrested in Tripoli on May 24th. The militia holding them says the brother is a member of IS and was planning an attack on Tripoli.

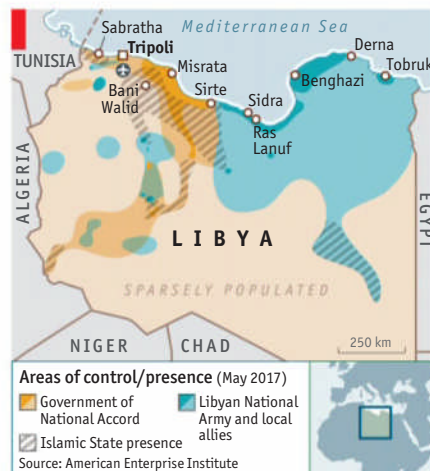
Chaos has been the norm in Libya since the uprising that toppled Muammar Qaddafi in 2011. Myriad armed groups, loosely

aligned with rival governments in the east and west, vie for power. A UN-backed peace deal, signed by some of the adversaries in 2015, has failed to unite the country or create an effective state under the "government of national accord" (GNA). IS has fed on the chaos—and added to it, lately by attacking water pipelines and pumping stations.

There are thought to be around 500 IS fighters operating in Libya, not the thousands estimated before their recent setbacks. But there are perhaps 3,000 jihadists of all types. In a sign of how fluid things are, IS is now said to be receiving support from local al-Qaeda fighters, despite feuding between the groups' leaders abroad. In Libya they operate in the same areas. Fighters move back and forth between them. "I can well imagine that they are co-operating on logistics and sharing information," says Wolfgang Puszta, a former Austrian defence attaché to Libya.

The terrain in the south makes it difficult to attack IS from the ground, say GNA officials, who oversaw the retaking of Sirte. But there are problems with air strikes too—the jihadists stopped travelling in large numbers after American bombers killed more than 80 of them in one set of strikes in January. Now they move in small groups along unpatrolled roads. The GNA says it is keeping tabs on them from a base near Bani Walid, while America is watching from the air. It has been flying surveillance drones over Libya from bases in Tunisia since last summer, and it is building a new drone base in Niger.

Neighbours worry that their own militants will find inspiration and training in Libya—and then return home. Chad closed its border with Libya in January, fearing an influx of jihadists. (It has since reopened one crossing.) Algeria has opened a new air base to guard its frontiers. Tunisia, which has suffered several attacks by jihadists, has built a 200km (125-mile) earth wall along its border with Libya. But even so, IS maintains cells near Sabratha, in the west, to help its fighters get in and out.



Europe, only some 400km away, is eyeing the situation with concern. The chaos has made Libya the main point of entry to Europe for African migrants. Despite more patrols, some 50,000 migrants are thought to have reached Italy by boat so far this year, over 40% more than in the same period last year. Some believe the smuggling business helps to finance terrorism—and that jihadists may be among those making the trip.

For now IS and its allies are keeping a low profile in Libya, if not elsewhere, as they try to rebuild their strength. Meanwhile, hopes of a settlement to the conflict look dim. The chaos is likely to continue, giving the jihadists an opportunity to reassert themselves at home. ■

Kenya

The last dance

NAIROBI

Does the start of Africa's tallest building signal the end of Kenya's boom?

COULD Nairobi, Kenya's traffic-clogged capital, be the next Dubai? Two large Dubai-based investors, Hass Petroleum and White Lotus, seem to think so. On May 23rd they formally started construction of what they claim will be Africa's tallest building. Out of a vast hole in the ground in Upper Hill, a neighbourhood full of government offices, will rise two towers, the taller some 300 metres high and named "The Pinnacle". (For comparison, the Burj Khalifa in Dubai, the world's tallest building, is 828 metres high). One will contain a hotel; the other, some 150 swanky apartments (or "residences"). A helipad will jut out of the roof of the taller tower, allowing the truly plutocratic to be whisked in over the traffic jams from the airport.

The investment is a fillip for Kenya. Much of Africa is in economic trouble. In 2016, according to the IMF, annual GDP growth across the continent sank to just 1.4%, the lowest rate in 20 years. Yet Kenya, which depends less on oil and mining than most African countries, has kept growing. Its economy probably expanded by 6% in 2016. Much of that came from projects such as the Pinnacle, a \$220m investment. Nairobi's skyline is dotted with cranes; new suburban housing estates are flourishing at the edge of the city. However, not everyone is confident that it can last.

For most of the past decade, investing in property in Nairobi has been extraordinarily lucrative. "Ten years ago, anything, honestly anything, would sell out," says Sakina Hassanali of Hass Consult, a property agency unconnected to Hass Petroleum. House prices have more than dou- ▶▶

bled since then, despite a flood of new apartment blocks and housing estates. As well as foreign investors, the boom has been underpinned by investment from wealthy Kenyans. Faced with an illiquid stock exchange and precarious banks, they have preferred to put their money into property. Scammers have got in on the frenzy, selling land they do not own, or off-plan apartments which are then built shoddily or not at all.

Yet the property boom is now slowing. “Prime” residential rents fell by 6% in 2016, according to Knight Frank, another property firm. In some corners of Nairobi half-built houses have sat for months with no progress. It is not clear that there are enough Kenyans who can afford to rent them. Most forecasters expect economic growth to slow, because of uncertainty about the Kenyan general election in August. Investment in infrastructure has helped to fuel the economy, but this could tail off after the election.

Could the construction of Africa’s tallest building turn out to be the last dance of the party? When asked who will live in his firm’s new “residences”, Abdinasir Hassan, the chairman of Hass Petroleum,



The pinnacle of optimism

points to “the large number of expatriates” working for NGOs in Nairobi. He also thinks that Nairobi will become a new financial hub for Africa. Yet few NGO workers are lavishly paid—and none is likely to need a helipad. ■

Eritrea and migration

The road less taken

KHARTOUM

Young people fleeing indefinite military service are encountering more obstacles on the route through Sudan

IN JERIF, a district of Khartoum, young Eritreans listen to Tigrinya pop music in dimly lit restaurants, or watch football at an oppressively hot community centre supported by their government. They are mostly male, and almost all have fled compulsory, indefinite military service on behalf of their despotic government. Most are working, or waiting for relatives to send money, so they can leave for Europe.

But the lads in Jerif will find their journey harder than their predecessors did. The number of Eritreans successfully completing each stage of the trip across the Sahara and the Mediterranean via Sudan appears to have declined in recent years. Border crossings fell by almost two-thirds to 9,000 between 2010 and 2016, according to the UNHCR, the UN’s refugee agency (the real figures will be far higher, however: plenty of Eritreans get into Sudan undetected). A smuggler says he sent 150 migrants from Khartoum to Libya and Egypt last year, down from 300-400 in 2014 and 2015. And 21,000 Eritreans made it to Europe in 2016, down from more than 39,000 the previous year when they were the largest group of migrants arriving in Italy.

European governments have realised that voters are fed up with people fleeing war and poverty across the Mediterranean. European Union money has persuaded transit countries from Turkey to Niger to curb the flow. Eritreans are also deterred by the risk of being kidnapped near the dangerous Eritrea-Sudan border.



Still, trafficking in the border region has not stopped. Digin, a soft-spoken 18-year-old, says he was chained up for 42 days by his kidnappers, after escaping from an Eritrean military training camp. After his family paid a ransom he was driven to Shagarab, a refugee camp close to the border.

Only a third of the Eritreans whom the UNHCR records crossing into Sudan will register as refugees. And within a few months, four-fifths of those will have sneaked out of Shagarab to meet a car that will take them to Khartoum. There they will meet a *samsara* (smuggler) who arranges the onward journey, once the migrants have the money.

The Libyan border with Sudan, in turn, is not as porous as it was. In the past year hundreds of Eritreans and Ethiopians have been caught by Sudan’s Rapid Support Forces (RSF), a group made up of the militia formerly known as the *janjaweed* that inflicted genocide on black Africans in Darfur in the mid-2000s. The captured Eritreans were deported. “The road to Libya is still working,” says a smuggler. “But it’s very dangerous.”

Eritreans are increasingly avoiding Libya, which is racked by civil war. Going via Egypt, usually by car and then train, does not guarantee success either. Meron Estefanos, a Swedish-Eritrean activist who tries to help captured Eritreans, says she now receives more calls from relatives of people imprisoned in Egypt, than from those kidnapped by gangs in Libya.

Others are heading north from Sudan, among them Sudanese themselves, especially Darfuris; the children of Eritreans who fled the war with Ethiopia in the 1990s; and Ethiopians. The EU is spending at least €115m in Sudan, mainly on things like education and nutrition, to try to give would-be migrants reasons to stay. EU officials say the funds, which started being approved in April 2016, will be handled by international agencies. One says they are “discussing” not “negotiating” with a government whose president of 28 years, Omar al-Bashir, is wanted by the International Criminal Court for allegedly ordering the slaughter in Darfur. But the arrests by the RSF, and recent round-ups of long-term Eritrean residents in Khartoum, suggest that the regime wants to show that it can curtail migration.

As long as the repressive Eritrean and Sudanese governments remain in power, people will try to get to Europe, however perilous the odyssey. Some women reportedly take contraception, expecting to be raped. Others learn parts of the Koran in case they are kidnapped by Islamic State in Libya. But many have stayed in Sudan long enough to see loved ones disappear in the desert or drown in the Mediterranean, and are loth to leave. If they were allowed to study and work, rather than being arrested, fewer would risk the onward trek. ■



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India's Kashmir problem

Talking to the enemy

SRINAGAR

Kashmiris may hate India. Indians must refrain from responding in kind

HAVING suffered a severe beating, Farooq Dar was tied up on a spare tyre attached to the front bumper of an armoured jeep. Indian soldiers claimed he had been throwing stones. Mr Dar was driven in agony through villages south of Srinagar, the largest city in the Indian state of Jammu & Kashmir. The soldiers reckoned the sight of him would deter others from throwing stones at their patrol.

Footage of Mr Dar's ordeal on April 9th circulated widely online, fuelling anger among inhabitants of the Kashmir valley, the Muslim-dominated part of the state to which Srinagar belongs (see map). The soldiers had been deployed to prevent unrest during a by-election that was held around the city for the national parliament. So bitter is the enmity felt by many Kashmiris in the valley towards the Indian government that only 7% of eligible voters cast ballots. Mr Dar, a weaver, says he was one of the few who did and that he did not throw anything at soldiers.

The Indian government is fumbling in so far as it is trying to tame a rebellious mood that has swept the valley in recent months. In late April it tried to win respite by imposing a month-long block on social media and mobile-phone data services (useful for uploading videos). On May 22nd, as the month reached its end, the army fanned the flames by announcing an award for the officer who had tied Mr Dar to the jeep. The commendation was not ex-

PLICITLY for that act, but for "sustained efforts in counter-insurgency operations". Kashmiris saw this as another insult by a Hindu-led government in Delhi, which most of them regard as hostile to their religion and from which many would like independence. As if to confirm their view, Indian television called the officer a hero for using Mr Dar as a "human shield".

The recent unrest has been of a different kind from the insurgency that previously plagued the state. In the 1990s and 2000s Pakistan, which like India claims all of Kashmir north and south of the "line of control" between the two countries, sent in armed jihadists to aid their fellow Muslims. India responded with a brutal cam-

paign to pacify its only Muslim-majority state. Fighting left some 40,000 dead, by conservative estimates. Skirmishing across the line continues to this day, but in the valley guerrilla warfare has abated. Since last July the unrest has involved hundreds of protests, triggered by the killing of a guerrilla leader by security forces. In April, after a clash between soldiers and students, the unrest spread to campuses. Now many of the protesters are middle-class, with uniforms and satchels.

The central government has compounded the problem by refusing to differentiate between the new type of demonstrator and the guerrillas. It has responded to protests with extreme violence: last summer and autumn security forces dispersed unruly crowds by firing shotguns at them, blinding or killing dozens of people. More recently they have refrained from using such weapons, but they have revived aggressive searches of a kind not seen since the height of the insurgency.

There are still guerrillas in the valley, but a few hundred compared with several thousand before. Most are young men who have stolen rifles and gone to hide in the forested hillsides, where they broadcast their defiance on social media and occasionally die in firefights with soldiers. They enjoy sympathy in parts of the valley, especially in the south, where an estimated 20,000 turned out to march at the funeral for the slain insurgent.

The central government is right to worry about such shows of support. But it is wrong to regard calls for *azaadi* (independence) as tantamount to violence. Those who throw stones at soldiers (often in response to aggression by the army) are routinely described as "militants". Indian media report, with flimsy evidence, that Pakistan pays protesters 500 rupees (\$8) per projectile hurled. By conflating the two



▶ kinds of unrest, the government limits its options for dealing with the less deadly kind. On May 21st Jitendra Singh, a central-government minister, said his colleagues would like to meet “stakeholders” in the state. But the government will not talk to any group that supports independence for Kashmir. That rules out the only one that enjoys broad support in the valley: the Hurriyat conference, a coalition of about 30 parties that want separation from India by peaceful means.

Support for the separatist cause has grown since 2014, when Narendra Modi took over as prime minister after a sweeping victory by his Hindu-nationalist Bharatiya Janata Party (BJP) in national elections. In those polls, many Kashmiris voted for the Peoples Democratic Party (PDP), an independence-leaning group which the central government could just about bring itself to talk to because its demands were not too explicit. The PDP won a majority in the Kashmir valley, but to the dismay of its supporters it formed a coalition with the BJP, which had won handsomely in Hindu-dominated Jammu. As a result, many of the PDP’s voters turned their back to the parties recognised by India.

Haseeb Drabu, a founder of the PDP who is the finance minister in Srinagar, defends his party’s decision to join forces with the BJP. He says no one was in a better position than Mr Modi to bring peace to Kashmir. But the assurances given to Mr Drabu by the BJP, including that the government would talk to the Hurriyat and other pro-independence parties, have been cast aside amid the growing unrest.

The government in Delhi should enter talks with separatist groups before their supporters become too enraged to countenance any discussions. Anger in Srinagar is already all-pervasive. On May 15th a delegation from India’s college-accrediting body paid a visit to Sri Pratap College, the most prestigious centre of higher education in Srinagar. Minutes before, students had clashed with the army; they were still scrambling to escape when the delegates arrived. The visitors had to pick their way through broken bricks and twisted bars of steel, with tear gas wafting around them. The protesters were not from Sri Pratap, the principal insisted, but from a scruffier place. Still, in a graduate lounge, post-doctoral students from Sri Pratap were only too eager to express admiration for the protesters, and contempt for India. ■

Missing map? Sadly, India censors maps that show the current effective border, insisting instead that only its full territorial claims be shown. It is more intolerant on this issue than either China or Pakistan. Indian readers will therefore probably be deprived of the map in the first story of this section. Unlike their government, we think our Indian readers can face political reality. Those who want to see an accurate depiction of the various territorial claims can do so using our interactive map at Economist.com/asianborders

The South China Sea

Shoals apart

SINGAPORE

A new agreement between China and South-East Asia is less than it seems

TO CALL negotiations between China and the ten-country Association of South-East Asian Nations (ASEAN) over rival claims in the South China Sea “drawn out” would be a gross understatement. At the centre of the matter is an unsquareable circle: the competing claims of China and several South-East Asian countries. Nobody wants to go to war; nobody wants to be accused of backing down.

Still, at a meeting of senior Chinese and ASEAN officials on May 18th, something happened: the two sides agreed on a “framework” for a code of conduct. An official from Singapore (which currently co-ordinates ASEAN-China relations) called the agreement a sign of “steady progress”.

ASEAN members called for a legally binding code of conduct as far back as 1996. In 2002, ASEAN and China signed a “declaration of conduct”, which recognised that a fully fledged code would be nice to have; it also committed both sides to peaceful dispute resolution and “self-restraint” in doing anything that could “escalate disputes [or] affect peace and stability”.

Since then, code-of-conduct negotiations have proceeded glacially. And in 2013 China embarked on a vast effort to build up seven reefs and rocks into islands suited for military use (see picture). Last July, after China received an unfavourable ruling on its maritime claims in a case brought by the Philippines to a tribunal in The Hague, China agreed to expedite the talks.

The draft framework will be presented to ASEAN and Chinese foreign ministers at a conference in August. This will then form the basis for the thorny negotiations to follow. The text has not (yet) been leaked. But its most salient feature may be what it appears to lack: any hint of enforcement mechanisms or consequences for violations. China has long rejected a legally binding agreement—or indeed any arrangement that could limit its actions in the South China Sea.

The result, explains Ian Storey, of the ISEAS-Yusof Ishak Institute, a think-tank in Singapore, is a framework “that makes China look co-operative...without having to do anything that might constrain its freedom of action”. ASEAN, meanwhile, gets the appearance of progress. “The ASEAN secretariat is a bureaucracy, and bureaucrats like process,” explains Mr Storey.

But a toothless agreement need not augur further Chinese aggression. And why should it? Under Rodrigo Duterte the Phil-



A reef with Chinese characteristics

ippines has turned from China’s chief regional rival into an ally. The two countries recently reiterated their desire in principle for joint exploration for resources, something Manila had resisted for fear it would validate China’s expansionary claims. Other countries seem resigned, in fact if not in principle, to its island-building.

On May 24th America carried out its first freedom-of-navigation operation (sending warships through international waters) since the election of Donald Trump. But he seems less willing than his predecessor to enforce a rules-based order; his transactional mercantilism will reassure China. Extended talks on a code of conduct probably mean that China will be free to consolidate its gains with minimal interference from rivals near or far. ■

Insurgency in the Philippines

Marauding in Marawi

MANILA

Rodrigo Duterte’s imposition of martial law opens up chilling prospects

RODRIGO DUTERTE, the Philippine president, declared martial law in Mindanao, the southern homeland of his country’s Muslim minority, after fighting broke out in the streets of the largely Muslim city of Marawi. Gunmen from one jihadist group fought back when the security forces attempted to capture the leader of another such group. Whatever the consequences in lawless Mindanao, for many Filipinos the imposition of martial law was an eerie reminder of a similar declaration in 1972 by the country’s then president, Ferdinand Marcos, that began a decade of ruinous dictatorship.

The defence minister, Delfin Lorenzana, said troops and police had raided a hide-out in Marawi to arrest Isnilon Hapilon, the leader of a branch of the Abu Sayyaf, an armed group that pledges allegiance to ▶▶

IS. To their surprise, security forces met resistance from about 100 armed members of another group, called Maute, which also claims IS links. In the ensuing battle, thousands of civilians fled Marawi. Maute seized a jail, freeing more than 100 inmates, as well as a hospital, the city hall and parts of a university campus—many of which were burned. As *The Economist* went to press, at least 21 people were reported killed. Mr Hapilon remains at large.

Mr Duterte declared martial law while on a state visit to Moscow, which he cut short to restore order at home. His spokesman said martial law would remain in effect across Mindanao for 60 days. Mr Duterte himself said later that it might last for a year, and he mused about expanding it across the country. If he wants to extend it he will face little opposition in Congress, where he has a majority. Mr Lorenzana said that martial law would give security forces the power to restrict people's movement and conduct searches without a court order. Mr Duterte also suspended habeas corpus.

The harm inflicted by the security forces after Marcos declared martial law countrywide is scorched into the memories of many Filipinos. Mr Duterte has often seemed to crave similar power: he has mused about declaring martial law as part of his murderous anti-drug campaign, and to deal with long-running insurgencies in other parts of Mindanao. He deepened public concerns when he said, on his way home from Moscow: "To my countrymen who have experienced martial law, it would not be any different from what President Marcos did. I'd be harsh."

Marcos's brutality failed to pacify the south. And the complicated situation in Mindanao, Mr Duterte's home region, may yet stay his hand. The Abu Sayyaf and the Maute groups are just two of many armed factions in the region. There are Islamists, Muslim separatists, communists, private posses belonging to local politicians, feuding tribes and gangs of common criminals. The categories are not mutually exclusive.

The principal groups are the Moro Islamic Liberation Front (MILF) and the communists. The once-separatist MILF has accepted autonomy instead of independence for mainly Muslim areas. It is holding fire while it waits for its peace agreement with the government to take effect. The communists and the government are talking peace but still fighting, if only half-heartedly.

The danger is that heavy-handedness by soldiers and police under martial law may upset this quasi-peace in Mindanao. And, like a similar raid in 2015 that left 44 Philippine police dead, the fighting in Marawi seems to stem from security forces' failure to assess intelligence they have received. Martial law will do nothing to solve such problems. ■

Post-tsunami reconstruction in Japan

Repopulating Fukushima

IITATE

The government pushes villagers back to the homes they left

FROM his desk, the mayor of Iitate, Norio Kanno, can see the beloved patchwork of forests, hills and rice paddies that he has governed for over two decades. A book in the lobby of his office calls it one of Japan's most beautiful places, a centre of organic farming. The reality outside mocks that description. The fields are mostly bald, shorn of vegetation in a Herculean attempt to remove the radioactive fallout that settled six years ago. There is not a cow or farmer in sight. Tractors sit idle in the fields. The local schools are empty.

Iitate, a cluster of hamlets spread over 230 square kilometres, was hit by a quirk of the weather. After the accident at the Fukushima Dai-ichi nuclear power plant, 45km (28 miles) away, which suffered meltdowns after a tsunami in 2011, wind carried radioactive particles that fell in rain and snow on a single night. Belatedly, the government ordered the evacuation of the 6,000 villagers. Now it says it is safe to return. With great fanfare, all but the still heavily contaminated south of Iitate—the hamlet of Nagadoro—was reopened on March 31st (see map).

The only part of the village that looks busy, however, is the home for the elderly. Locals say a few hundred people, at most, have returned, predominantly the retired. Mr Kanno will not reveal how many "because it gives the impression that we are forcing people to live here, which we don't intend to do." Yet many evacuees now face a stark choice: return to Iitate, or lose part of the compensation that has helped sustain them elsewhere.

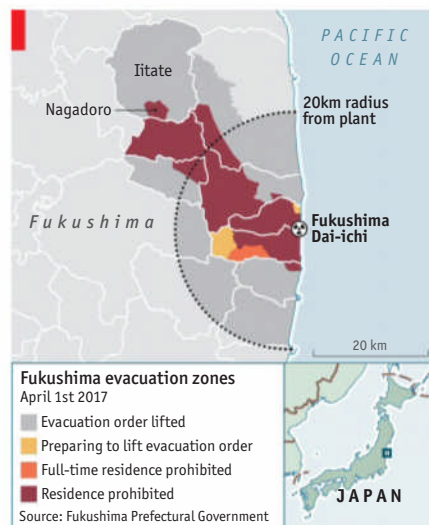
Last month this dilemma was expressed with unusual clarity by Masahiro Imamura, the minister in charge of reconstruction from the disaster. Pressed by a reporter, Mr Imamura said it was the evacuees' "own responsibility, their own choice" whether or not to return. The comment touched a nerve. "It's economic blackmail," says Nobuyoshi Ito, a local farmer. Mr Imamura has since resigned.

Nobody wants Fukushima mentioned in the same breath as Chernobyl. Almost three decades after the world's worst nuclear accident, life there is still frozen in time, a snapshot of the mid-1980s Soviet Union, complete with posters of Lenin on school walls. By contrast, about ¥200m (\$1.8m) per household has been spent decontaminating Iitate, helping to reduce radiation in many areas to well under 20 millisievert per year (the typical limit for nuclear-industry workers). But the clean-up extends to only 20 metres around each house, and most of the village is forested mountains. In windy weather, radioactive caesium is blown back onto the fields and homes.

Nevertheless, Mr Kanno says it is time to cut monthly compensation payments which, in his view, encourage dependence. In 2012 Iitate's became the first local authority in Fukushima prefecture to set a date for ending evacuation. The mayor pledged that year to revive the village in five years, a promise he has kept. A new sports ground, convenience store and noodle restaurant have opened. A clinic operates twice a week.

All that is missing is people. Less than 30% of Iitate's former residents want to return. (In Nagadoro, over half said they would never go back.) Many have used earlier lump-sum payments to build lives elsewhere. Before the disaster struck, the village had already lost a third of its population since 1970 as young folk moved to the cities—a process that has hollowed out many a *furusato*, or home town.

Families left behind quarrel about whether to leave or stay, says Yoshitomo Shighihara, a villager. "Some try to feel out whether others are receiving benefits, what they are getting or how much they have received in compensation. It's very stressful to talk to anyone in Iitate." Some wanted to move the entire village to one of the country's many depopulated areas but Mr Kanno would not hear of it. In trying to save the village, says Mr Ito, the mayor may be destroying it for good. ■



Banyan | The shrinking monarchy

If a woman cannot inherit the Japanese throne, perhaps no one will



DEATH through overwork is considered to be such a feature of the workplace in Japan that there is a word for it: *karoshi*. For the Japanese emperor, *karoshi*, or at least death in service, has to date been mandatory, since no provision exists in the Imperial House Law, which governs the monarchy, for voluntary retirement. That might seem a bit unfair on Emperor Akihito, an 83-year-old who has had prostate cancer and heart-bypass surgery. Yet when the cabinet of Shinzo Abe, the prime minister, approved a bill last week to allow for the emperor's abdication—just this once, mind you—Japanese ultranationalists were incandescent. They aggressively revere the emperor, regardless of his wishes. And Mr Abe, they said, was playing with sacred tradition.

Ten months ago, in a televised statement, Akihito hinted at his wish to step down. Age and declining health, he said, were taking their toll and making it hard to perform his official duties to the full. Those duties, he made it clear, were not only ceremonial but involved connecting deeply with ordinary Japanese.

The country's post-war constitution stipulates that the emperor is no god-king above the law, as he was before the country's defeat in 1945. Rather, he is "the symbol of the state... deriving his position from the will of the people" in whom, explicitly, sovereignty now lies. Since even before acceding to the throne on the death of his father, Hirohito, in 1989, Akihito and his common-born wife, Michiko, have shown a desire to bring the monarchy down to the level of ordinary folk, sometimes literally—for instance, kneeling on the ground as they console victims of Japan's frequent natural disasters. In last year's statement, the emperor said that understanding what was expected from him as the symbol of the state involved nurturing "an awareness of being with the people". Hence his criss-crossings of Japan, even to the remotest places, were "important acts" for him.

Ultranationalists are disdainful of such abasements. (Akihito is said to have been offended when conservative scholars last year said he should just stick to praying and carrying out Shinto rituals.) Worse, in their eyes, is how Akihito has sought forgiveness from neighbours and former enemies for Japan's wartime actions. The nationalists deny that Japan was an aggressor or committed atrocities; they say Japanese were the victims, including of nuclear bombing. They cheer that, after the war, Japan's

American occupiers and political elite rebranded Hirohito, who was complicit in Japanese militarism, as a paragon of pacifism.

Akihito's immense popularity shows that the hardline nationalists, though influential, are in a minority. A more open, accessible imperial family has transformed the monarchy's appeal after the aloofness of Hirohito—even if it will be a while yet before the royals bicycle to the supermarket like Scandinavian ones. And so a groundswell of sympathy greeted Akihito's request to be allowed to retire (he suggested he could also spare the country onerous official mourning duties when he eventually did pop off). Mr Abe, an arch-conservative himself on matters of the imperial family, could hardly object. After cabinet approval, the Diet is likely to pass an abdication law next month. Akihito is thought likely to pass the Chrysanthemum Throne to his son, the 57-year-old crown prince, Naruhito, in late 2018.

Naruhito would become, supposedly, the throne's 126th occupant—though if you believe that an unbroken imperial line goes back to the birth of Emperor Jimmu (descended from the Sun Goddess) on February 11th 660BC, there is also a strong case to be made for pixies. But immediately another problem looms: a dearth of future candidates in a male-only imperial succession.

As if to underline how the imperial family is shrinking, just like the population as a whole, last week Naruhito's eldest niece, 25-year-old Princess Mako, announced that she wanted to marry a non-royal. The Imperial House Law rules that a woman who marries a commoner must leave the royal family. Still, she will get a bonus payment thought to be more than \$1m. This will leave the imperial family with just 18 members, 13 of whom are women. Akihito has four male heirs: Naruhito; Naruhito's younger brother, Prince Akishino; Akishino's ten-year-old son, Prince Hisahito; and Akihito's surviving brother, 81-year-old Prince Masahito. A lot, in other words, is riding on little Hisahito to replenish the stud book. What if it turns out that girls are not his thing?

It's no man's world any more

In terms of solutions to the shrinking pool, the traditionalists are of no use. They insist on no deviation from the tradition of an unbroken male bloodline—in their view, as Kenneth Ruoff, head of Japan studies at Portland State University, puts it, if the male bloodline ceases then Japan ceases. Their occasional suggestion of a return to concubines (Akihito's grandfather was born to one) is intended seriously but is a joke.

Something will have to give. It nearly did a dozen years ago. At that time, no potential heir to Naruhito seemed likely, and the then prime minister, Junichiro Koizumi, was getting ready to introduce legislation to allow women to reign, as well as succession down the female line. Though four-fifths of Japanese polled were fine with the idea, an opposing minority was vocal. But on the unexpected news that Akishino's wife, Kiko, was pregnant more than a decade since last giving birth, the legislation was hurriedly shelved. A few months later Hisahito saved the day.

The opposition Democratic Party wants to revive the idea of allowing female royals to establish collateral branches of the imperial family after they marry. To fend that off, Mr Abe's Liberal Democratic Party looks ready to propose a sop—allowing married women to carry out some official imperial duties. That is no solution, however, to the problem of the incredible shrinking monarchy. Mr Abe has shown himself all in favour of women, except on the throne. But at some point the royalists will have to concede—or be responsible for a republic. ■



Provincial politics

A hand up for Xi's people

BEIJING

Sweeping changes of provincial leaders demonstrate Xi Jinping's power

IMAGINE an American election in which two-thirds of the senators and three-quarters of the state governors up for reelection are defeated. It would be a landslide to end all landslides. (When Ronald Reagan won 98% of the electoral-college votes in the presidential election of 1984, only four Senate seats changed hands out of 33 races). Yet this is the level of turnover happening now at the provincial level in China, without the democracy: ballot papers dropped ceremoniously into large red boxes create a mere semblance of it.

Since the start of 2016 China's president, Xi Jinping, has replaced 20 of the Communist Party's 31 provincial secretaries, as the most powerful leaders at that level are known. He has also shuffled 27 of the provincial governorships (governors are second-in-command). For local leaders, April was the cruellest month: ten jobs changed hands. By the autumn, almost every province will have felt the effects—including Hong Kong, where a new leader was named in March. (That process, too, was hardly democratic.)

Party secretaries and governors normally serve for five years, so in any one year you would expect a dozen or so to retire or change jobs. The number tends to rise towards the middle of a national leader's ten-year term of office—a point at which wide-ranging shuffles normally take place at every level. Mr Xi is at that stage of his tenure (assuming he follows

convention and steps down as general secretary in 2022). But the scale of his recent shake-up has been unusual. Between January 2006 and May 2007—the comparable midway period in the rule of his predecessor, Hu Jintao—12 party secretaries and 11 governors were replaced, only half the number shifted during the past 16 months.

Some recent changes have been related to the incumbents' age: 12 of those replaced, including the party secretaries of nine provinces, were about 65 years old, when senior officials normally retire. Two of the leaders were dismissed for alleged corruption: the governor of Sichuan in the south-west, and the party boss in Tianjin, a city near Beijing with provincial status. As often happens, seven governors replaced their departing party chiefs.

Total control

So 21 of the changes were to some extent required by age, criminality or term limit (though Mr Xi presumably had some influence both over the anti-corruption charges and the promotion of governors). That leaves 25 changes which seem to have been made at Mr Xi's discretion. Why would he want to move so many people?

The answer relates to a national party congress, which is due to be held in the second half of 2017. Such meetings happen every five years. They are a little like an American presidential election, in that they change the elite that makes up the na-

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tional government. The congress will appoint a new Central Committee of around 370 people including provincial and national leaders. Like an American election, it will involve infighting and score-settling.

Mr Xi's appointments in the provinces help him directly and indirectly. Almost all the party chiefs and governors will become members of the Central Committee, if they are not already. The more who owe their power to Mr Xi, the better for him. Unlike his predecessor, Mr Xi was not the head of an established political faction when he took over as general secretary in 2012, so he had to create his own. The new provincial leaders help him do that.

They also play an important role in preparations for the congress, including the choosing of more than 2,000 delegates and setting the agenda—the meeting will discuss a state-of-the-nation report by Mr Xi and adopt revisions to the party's charter. With his provincial appointments, Mr Xi is putting in place those who can ensure that the right people attend the congress, say the right things and vote the right way.

Just because Mr Xi has promoted someone does not necessarily mean he or she is a close ally. Chinese politics is riven by factions, and Mr Xi sometimes has to make appointments to appease rivals or for other reasons. The choice of the new governor of Inner Mongolia, for example, looks like a case of buttering up a powerful local family. Bu Xiaolin, the person in question, is the daughter and grand-daughter of previous heads of the provincial government.

With the retirement of the party chief of the coastal province of Zhejiang, Xia Baolong, Mr Xi has also lost a powerful ally in the regions. Mr Xia stepped down in April after a career that included a spell as deputy to Mr Xi when he was the province's party chief between 2002 and 2007. Overall, though, Mr Xi has gained a lot. ▶▶

▶ Two of the new party secretaries held high office in Shanghai when he led the party there in 2007-08. Three of them, as well as two of the new mayors of provincial cities, worked with him in Zhejiang. Others with ties to him from the same period have different senior posts, such as the president of Baosteel, a large state-owned firm. They are likely to get promotions at the congress or soon after.

Analysts are divided in their assessment of what Mr Xi hopes to achieve at the meeting and the extent to which he will get his way (some believe he would like to lay the groundwork for extending his rule beyond 2022). But the churn of provincial bosses has shown that Mr Xi enjoys growing influence within a powerful tier of the leadership. This must make it more likely that he will emerge even stronger. ■

Espionage

Spy kids

BEIJING

In battles with foreign spies, even schoolchildren have a role to play

CHINA's government regards spy-catching as a game for everyone. In April the municipal government of Beijing started offering rewards of up to 500,000 yuan (\$70,000) for finding one. It called on citizens to be on their guard against agents attempting to "infiltrate, subvert, split or sabotage China". Also last month, an official publishing house produced new books for primary-school children to mark the country's second "National Security Education Day". They included fun games such as "Find the spy". State media said this was part of an effort to mobilise students of all ages as "a huge counter-spy force".

It is not known whether this approach has secured important leads. But in recent days official newspapers have been crowing about a reported victory for China's counter-intelligence efforts. On May 20th the *New York Times* said that between 2010 and 2012 China had uncovered a network of some 20 agents, planted deep within China's bureaucracy, who had been feeding information to the CIA. This was said to have been one of the biggest such breaches in recent decades. The newspaper said some of the agents had been killed, including one who was shot in front of his colleagues as a warning.

Xi Jinping, who took over as China's leader in 2012, appears even more obsessed than his recent predecessors with catching spies, stemming leaks and crushing subversives. He has introduced tough new laws on national security and made himself overlord of the security agencies.

Dolphins

Pink and imperilled

HONG KONG

Megaprojects are forcing out some of Hong Kong's most precious residents

“THE dolphin is clever, cute, kind, active and inoffensive. Exactly the character of Hong Kong.” So said a local member of a committee appointed by China to oversee the end of British rule over Hong Kong in 1997. The body had decided that the pink dolphin, a rare type sometimes seen cavorting in the territory's harbour, would be a mascot of the handover festivities. Since then, however, the animal's fate has not been an encouraging portent of the territory's post-colonial progress. Hong Kong's dolphins are in perilous decline.

They belong to a type of dolphin that lives off China's shores called *sousa chinensis*, or the Chinese White (though they are grey when born and pinkish as adults). They prefer the brackish water of estuaries, where they are threatened by fishing and water-polluting factories. In Hong Kong there is a different danger: the relentless building of megastructures, including one of the world's longest bridges. Before the British left they built an airport on 938 hectares (2,300 acres) of reclaimed land: a new runway is planned that will require 650 more.

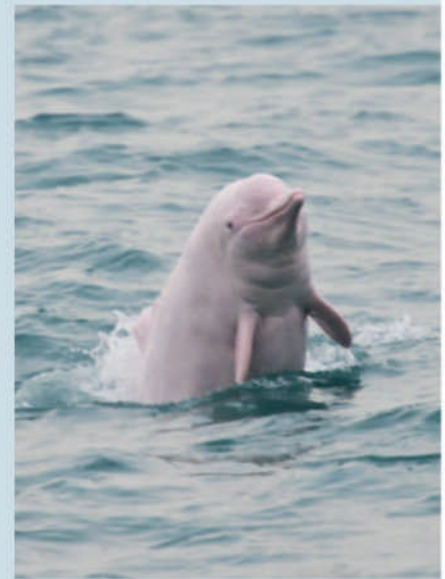
Such work appears to be driving the dolphins farther away. In a survey conducted in 2003, scientists spotted 188 dolphins around Lantau island, the animal's main habitat in Hong Kong and the site of the airport. In 2015 they saw just 65. Experts are not convinced that the animals are safer when they move elsewhere along China's coast. In 2010 there were thought to be 2,500 dolphins in the Pearl river delta (which includes Hong Kong)—the largest known group. But their numbers there are falling by around 2.5% annually, say scientists at the University of Hong Kong.

The government of Hong Kong appears half-hearted about protecting them. An official website promoting Lantau's attractions uses pictures of the wrong species. Janet Walker of Hong

Kong Dolphinwatch, which runs dolphin-spotting tours, complains that other boats sometimes ignore a code of conduct requiring them to keep away from the animals. The government, she says, are not keen on stricter enforcement.

Officials have pledged to open more “marine parks” where dolphin-threatening activities will be banned. But one that is planned around the airport will not open until 2023, when the new runway is due to open. Samuel Hung, who runs a government-funded study of the dolphins, says there is “no way” the animals will tolerate the disruption caused by the runway's construction.

On July 1st Hong Kong will mark 20 years of Chinese rule. On the harbourfront, a sign promoting a celebratory event features a bright pink, winking dolphin and a blue-coloured friend. If the government wants to make use of dolphinoid imagery in another 20 years, it will be embarrassing if none is left.



Not entirely in the pink

A fear of losing secrets may in part explain Mr Xi's eagerness to secure the return of thousands of officials and politically connected businesspeople who have moved abroad, many of them to avoid charges of graft. Some such as Ling Wancheng, the brother of a former chief-of-staff to Hu Jintao, an ex-president, are familiar with the party's inner workings. Mr Ling has denied reports that he has divulged nuclear secrets and information about China's leaders to America's spies.

Last month China said Interpol, an international police co-operation body, had issued a notice to its members that Guo Wengui, a Chinese businessman in self-imposed exile, was wanted in China for corruption. Mr Guo has been broadcasting almost daily reports on YouTube of high-level intrigue in China (information that the party considers top secret). Many Chinese netizens, far from abhorring his leaks, appear to relish them—if, that is, they are able to dodge the hyperactive censors. ■



Prisons

Turning villains into neighbours

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BASTOY, NORWAY AND INDIAN SPRINGS, NEVADA

Too many prisons are “an expensive way of making bad people worse”. But some work well

“DO YOU want a coffee?” It is a chilly morning on the ferry to Bastoy, an island prison in Norway. Two burly ferry-men greet a visiting journalist with a hot drink. Asked if they work for a local ferry company, they reply: “No, we are prisoners.” One is serving 14 years for attempted murder. The other, nine years for “drugs and violence”. The ferry is moored and there is no one around. Either man could easily make a run for it. But neither does. Hardly anyone tries to escape from Bastoy.

It has been called the “world’s nicest prison”, but this misses the point. The rooms are pleasant enough. The inmates can wander where they like on the island, go cross-country skiing in the winter and fish in the summer. So long as they keep it tidy they can enjoy the beach (see picture). Yet what is most unusual about Bastoy is not that it treats prisoners like human beings, but that it treats them like adults.

Prisons in other parts of the world try to stop inmates from laying hands on any piece of metal that could be shaped into a weapon. Bastoy prisoners walk around with hammers, axes and chainsaws. They chop down trees for furniture, grow vegetables and raise livestock. They used to slaughter cows but Norwegian health and safety laws make this uneconomical unless done on an industrial scale.

In short, the prisoners are expected to look after themselves. If they do not tend the forest, it will cover the island, notes Tom Eberhardt, the governor. If they do not tend the fields, the crops will die.

Inmates do not start their sentences at Bastoy. They must do time in a conventional lockup and apply to be transferred, having convinced the authorities that they wish to reform. In a normal prison, inmates are spoon-fed, notes Mr Eberhardt. “They take only three or four decisions a day, such as when to go to the toilet.” At Bastoy they make nearly as many decisions as they would if they were free. By teaching the inmates responsibility, Bastoy aims to “create good neighbours”.

Norway has the lowest reoffending rate in Scandinavia: two years after release, only 20% of prisoners have been reconvicted. By contrast, a study of 29 American states found a recidivism rate nearly twice as high. This is despite the fact that Norway reserves prison for hard cases, who would normally be more likely to reoffend. Its incarceration rate, at 74 per 100,000 people, is about a tenth of America’s.

Visiting Americans find the atmosphere at Bastoy shocking. Why is security so lax? Where are the lethal electric fences and the guards with shotguns? At a prison in Indian Springs, Nevada, your correspon-

dent was advised not to wear blue because that was the colour of the prison uniform. It was unlikely that there would be trouble, the press officer explained, but if there was you would not want an armed guard to mistake you for a rioting inmate.

Nelson Mandela once observed that: “No one truly knows a nation until one has been inside its jails.” This article makes a different argument: that although they have improved in recent decades, the world’s prisons are nowhere near as effective as they should be at curbing crime or reducing harm to society. Far too many fit the description of Douglas Hurd, a former British home secretary, who said that: “Prison is an expensive way of making bad people worse.”

What ails the jails

There are at least 10.3m people behind bars worldwide, according to Roy Walmsley of the Institute for Criminal Policy Research, a think-tank. This is a snapshot—many more pass through each year and yet more are on parole or probation. The global total excludes countries such as North Korea and Eritrea, which have big gulags but publish no data. It also undercounts the number in China, which has not recently revealed how many of its people are locked up awaiting trial. ▶▶

▶ Since 2000 the number of prisoners in the world has risen by 20%, a little above population growth of 18%. The trend masks a frenzy of regional change. South America, South-East Asia and the Middle East have seen sharp increases in prisoner numbers (145%, 75% and 75%). In Europe numbers have fallen by 21%. Over the same period, crime has fallen worldwide.

Many jails are hellish; sometimes deliberately so. In Syrian prisons, dissidents are beaten, given electric shocks, crushed in a folding board called the “flying carpet” and hanged in their thousands after two-minute “trials”. More commonly, prisons are vile because they are overcrowded and ill-managed, so the nastier inmates (and guards) can do what they please.

At some Brazilian lockups, for example, heavily outnumbered guards patrol the perimeter and allow gang bosses to impose order within. Convicts are free to run their drug empires by mobile phone. In the first two weeks of 2017, as rival gangs fought for supremacy, at least 125 inmates were killed in riots in Brazil. At one prison in Manaus, severed heads and limbs were stacked on the floor.

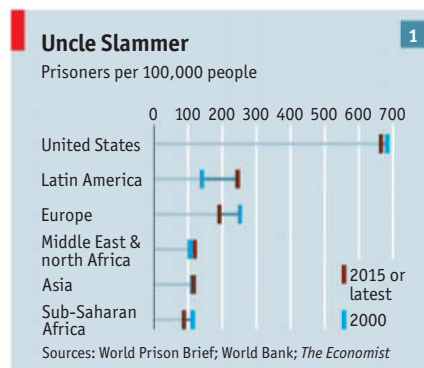
Worldwide, overcrowding is the norm. Prisons cost money to build, after all, and there are few votes to be won by making life easier for criminals. In 58% of the 198 countries for which there are data, prisons are more than 100% full, says the latest annual Global Prison Trends report from Penal Reform International, a think-tank. Some 40% of countries were above 120% capacity; 26% were above 150%.

America locks up far more people than any other rich country (see chart 1). Yet the recent trend has been towards leniency. The proportion of American adults behind bars fell from a peak of 1 in 100 in 2008 to 1 in 115 in 2015. Several states have tried to find alternatives to incarceration for non-violent criminals, partly to save money and partly because they have concluded that locking up too many people for too long does little for public safety. “Kentucky prisons were full of people we’re mad at, not people we’re afraid of,” says John Tilley, the secretary of justice in Kentucky.

On the straight and narrow

Donald Trump’s attorney-general, Jeff Sessions, wants to make America more punitive again. This month he ordered federal prosecutors to seek maximum sentences for drug offenders. Although federal inmates are less than a tenth of the total in America, Mr Sessions shows that advocates of old-fashioned “tough-on-crime” policies are still powerful.

One reason for locking people up is to punish them. Victims of crime, especially, may be comforted by the knowledge that their tormentors are suffering. In a poll in crime-racked Brazil, 57% of people agreed that “a good criminal is a dead criminal.”



But for many people the aim of incarceration is to reduce the harm caused by criminals. Prisons can do this in three ways. First, they restrain: a thug behind bars cannot break into your house. Second, they deter: the prospect of being locked up makes potential wrongdoers think twice. Third, they reform: under state supervision, a criminal can be taught better habits.

On the first count, most prisons succeed, but at a cost. The mass incarceration of certain groups of men, such as black Americans, can tear apart families and communities. And many criminals are kept locked up long past the age at which they cease to pose much of a risk to the public. Violence is a young man’s vice;

there are not many middle-aged muggers.

On the second count, deterrence, prisons are necessary unless we want to bring back flogging. But sentences need not be as long as they are in many countries, especially America. Criminals have short time horizons—a ten-year sentence only deters them slightly more than a one-year sentence, though it costs ten times as much. To deter would-be criminals, what matters most is not the severity of the penalty but the certainty and swiftness with which it is imposed. Criminals restrain themselves only if they think they will be caught and punished. Steven Levitt, an economist, estimates that in America \$1 spent on police is at least 20% more effective in preventing crime than \$1 spent on prisons.

Even when the police are effective, criminals are often undeterred. They are typically impulsive and opportunistic, picking fights because they are angry and grabbing loot because it is visible. Which is why rehabilitation is so important: nearly all inmates will eventually be released, and it is far better for everyone if they do not go back to their old ways.

The countries that lock up the fewest people tend to be either liberal (Sweden, Finland) or too poor to build many prisons (see chart on next page). In the Central African Republic, the incarceration rate is only ▶▶

Women in prison

Girls, incarcerated

COATLÁN DEL RÍO

More women are being put behind bars. Fewer should be

ONE of Mexico’s newest prisons allows inmates to receive a conjugal visit every week. The rooms set aside for these visits at Coatlán del Río have clean beds, showers and toilets. Any married inmate can use them, as can same-sex couples, if they tied the knot in a Mexican state where gay marriage is allowed.

Alas, the conjugal rooms are barely used. This is a women’s prison and their menfolk are a bit unreliable. “Women in prison are often abandoned,” says an experienced guard at the prison. Of the 1,400 inmates, how many receive regular conjugal visits? “Only one,” she sighs. Another inmate was sentenced for smuggling drugs to her husband in a different jail. He was released and promptly found another woman, says the guard.

Serious criminals are nearly all male, which is why less than 10% of the world’s prisoners are women. But the number of female prisoners has soared by 50% since 2000. This is worrying. Women in prison are far less likely than men to have committed violent crimes, and more likely to have broken the law to support their families. In Indonesia and the Philip-

ines, more than 90% of female prisoners have been charged with drug offences. In Ireland, 80% are jailed for non-payment of fines. Most Kenyans prosecuted for brewing illicit alcohol are women, perhaps because it is a crime that can be committed without leaving the children home alone. In Afghanistan, half the women in prison are there for “moral” crimes such as eloping.

Locking up parents harms children; and female prisoners are much more likely to be custodial parents. Coatlán del Río tries to keep mothers and small children together. It has a playground and a children’s library. Costa Rica recently tweaked its laws to make it harder to lock up women who smuggle drugs to jailed lovers or steal to support their hungry children. Punishments such as home arrest and electronic tagging hurt their children less.

The guard at Coatlán del Río, who has worked in male and female prisons, describes the difference. Male prisoners look for bits of wire to make weapons and stab each other, she says. “Women look for wire to curl their eyelashes.”

16 per 100,000. (By one estimate half the inmates are serving time for witchcraft.)

Reserving prison for the worst offenders has hefty benefits. First, it saves money. In America, for example, incarcerating a federal convict costs eight times as much as putting the same convict on probation. Second, it avoids mixing minor offenders with more hardened criminals, who will teach them bad habits. “The low-level guys don’t tend to rub off on the higher-level prisoners. It goes the other way,” says Ron Gordon of the Utah Commission on Criminal and Juvenile Justice, a state body.

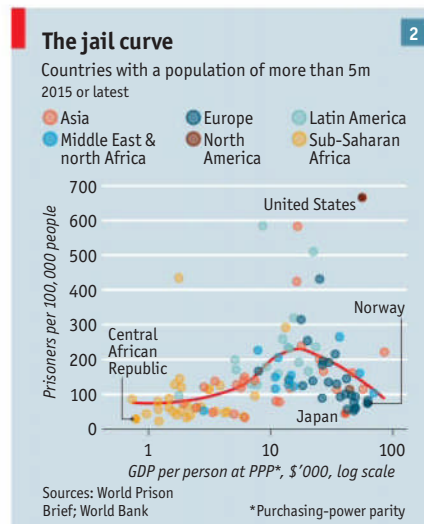
Modern electronic tags are cheap and effective. In a recent study Rafael Di Tella of Harvard University and Ernesto Scharfrosky of Torcuato Di Tella University compared the effects of electronic tagging versus prison for alleged offenders in Buenos Aires. Earlier research had failed to deal with the fact that criminals who are tagged are less likely to reoffend than the more dangerous ones who are locked up. The authors found a way round this. Alleged criminals in Argentina are assigned randomly to judges for pre-trial hearings. Liberal judges are reluctant to hold them in the country’s awful jails, so they often order them to be tagged. So-called *mano dura* (tough hand) judges prefer to lock them up. The researchers observed what happened to similar offenders under different regimes. Only 13% of those who were tagged were later rearrested; for those sent to prison the figure was 22%.

Prison break

Some criminals are so dangerous that they need to be locked up. But nearly all will one day be released. Consider Tore (not his real name), an inmate at Bastoy. He spent his 20s selling drugs, drinking and partying. One day, when he was high on methamphetamine and had not slept for three days, he attacked two friends with a knife, over nothing—some expensive clothes. He was arrested, charged and got into another fight while awaiting trial. He was eventually given a 14-year sentence for three attempted murders and intending to sell several kilos of hash.

For the first couple of years inside a closed prison, he was furious and blamed “everyone else” for his plight, he says. But then he took a course with a counsellor who had lived “the same life”. She talked to him about his regret for what he had done, and persuaded him that he could never touch alcohol again. It took many months. “It was like freedom,” he recalls.

At Bastoy he took a carpentry exam. He will probably be released in three years. On that day, he expects to have a job. Bastoy inmates can start working outside 18 months before they are released—the aim is to ensure that every ex-prisoner has a roof, an income and something to do. (In America some prisoners are released after



long sentences with little more than clothes and a bus fare.) Eventually Tore plans to set up his own carpentry business.

Prisons around the world use a variety of tools to prevent recidivism. It is fiendishly hard to disentangle what influences a convict’s future behaviour, but Adam Gelb of the Pew Charitable Trusts, a think-tank, lays out some principles which have been shown to work.

First, identify the inmates who are most likely to reoffend. Some good predictors of this cannot be changed, such as a troubled family background and previous criminal history. Age is also crucial—some 68% of federal prisoners in America who are released before the age of 21 are rearrested within 8 years; for the over-60s, it is only 16%. Other risk factors are more malleable. Poor impulse control, substance abuse and the habit of picking anti-social friends can all respond to treatment.

Rehabilitation programmes that focus on factors other than crime, such as creative abilities, physical conditioning and self-esteem do not reduce criminal behaviour, argues Edward Latessa of the University of Cincinnati. Boot camps are especially ineffective: they foster aggression and bond criminals together.

Oliver Bueno, a former drug-dealer, agrees. “I came out worse,” he recalls of his time in a juvenile boot camp in Nevada. “You got beat up all the time by staff,” he says, adding that the guards were “ex-military, hillbillies and real racists”. He describes having his head shaved and being constantly shouted at. “The abuse got me more and more angry, hating authority,” he says. After his release, he went straight back to gangbanging, selling drugs and getting into fights over trivial slights. Shortly before his next arrest, he says, “I had a gun in [another man’s] face and I don’t even remember what it was about.”

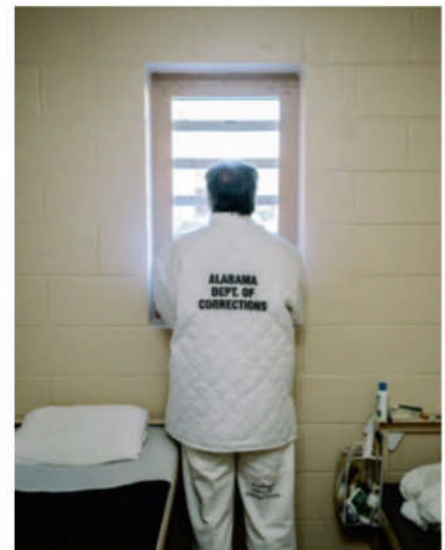
Perhaps the best tool is cognitive behavioural therapy (CBT). This is not about sitting in a circle and sharing one’s inner de-

mons. It is about helping people to understand the “triggers”—people, places and things—that prompt them to offend. The counsellor nudges the offender towards minimising negative influences and maximising positive ones. For example, “If you get together with your friend Tom on payday and go crazy, maybe you should avoid Tom on payday,” says Mr Gelb. Counsellors should not argue or hector, but show that they are listening and praise offenders for acting responsibly.

Norway uses CBT a lot—Tore benefited from it. America uses it spottily. A study of over 500 programmes in American prisons, jails and probation agencies by Faye Taxman of George Mason University found that only 20% involved CBT and only about 5% of individuals were likely to have access to it. Done well, it can reduce recidivism by 10-30%. A meta-analysis of 50 CBT programmes in America by Thomas Feucht and Tammy Holt for the National Institute of Justice, a government body, found that 74% were effective or promising. They worked best with juvenile offenders and worst with wife-beaters. There was mixed evidence for the effect on sex offenders, who are hard to reform.

The great escape

Mr Bueno, the former drug-dealer, says he was reformed not by anything he learned in prison, but by Hope for Prisoners, a charity—and God. When he left his cell for the final time, he went back to his old friends and was “walking back down the same old paths”. Then his girlfriend (now wife) suggested he go and listen to Jon Ponder, an armed robber-turned-preacher, who teaches ex-convicts to take responsibility for their lives. Mr Bueno exults that he has joined “the most powerful gang in the world—God’s gang”. Tore, in Norway, has a more secular view of reform: “I just want to be a normal person and pay tax.” ■



Inmate, you’ll have to wait

Renewable energy in Turkey

Turkey is actively engaging with investors to help sustainably expand its energy network in the face of pressing demographic changes. Plentiful renewable resources are expected to reduce dependence on imports to meet domestic demand, with ambitious goals set for 2023.

The Turkish energy sector is complex, with the country largely reliant on imports of oil and gas to meet a domestic demand which has increased over the past couple of decades in parallel with substantive economic growth. At the same time, its strategic location between power hungry European markets and the world's most important oil and gas producers has made it a crucial transit hub for these supplies. Dependence on imports is a concern for state policy-makers, and the challenges of providing sufficient electricity for the nation has been dealt with under the incumbent government by introducing a fully privatized model. Distribution is now totally in the hands of the private sector, while power generation will, over the short term, be privatized in line with the broader liberalization strategy being implemented at present. In recent years, the possibilities offered by renewable energy sources have emerged as an increasingly auspicious alternative to traditional fuels, and the segment has begun to attract serious interest from potential investors. Turkey has ample sustainable resource potential, with latent solar, wind, hydro, geothermal, and bio-fuel potential at hand for exploitation. Though these avenues have not yet been explored fully, the prospect of direct investment in the field has encouraged observers to begin seriously considering these options. Since 2005, incentives have been made available through official regulations, beginning with the promulgation of the "Law on Utilization of Renewable Energy Resources for the Purpose of Generating Electrical Energy." Regrettably, feed-in tariffs, or cost-based payments for firms generating renewable energy, remained low, and substantial advances in the development of the segment were not made until after 2010. In December of that year, an amendment to the law was introduced which applied the appropriate policy mechanisms to certain sustainable technologies, and started to stimulate genuine interest in both Turkish and international circles. These incentives have been put in place for a decade, and will be revised in 2020.

The tariffs applied vary from technology to technology. Hydro-electricity nets 7.3¢ per kWh, as does wind energy, while biomass and solar projects earn incentives of 13.3¢ each. Geothermal projects gain 10.5¢ per kWh. The more interest the government has in encouraging the exploitation of these particular energy sources, the higher the value of the incentive. Additional motivation is provided for producing energy using local input and locally manufactured products in the construction and operation of the plants. This latter aspect of renewable energy policy is important not to overlook, and goes hand-in-hand with separate efforts by the state to reduce carbon emissions, increase generation and transmission efficiency, and introduce more environmentally friendly and low energy technology for waste processing and other public services. These attempts to increase electricity efficiency and source more energy from renewables have created a dynamic and com-



petitive market and made Turkey an extremely attractive investment destination. Advantageous regulations for investors in renewable energy are not limited to that, with comprehensive price and completion guarantees offered as well. Interested parties will also gain from the more general inducements made accessible to foreign investors in Turkey. These range from VAT exemptions on imported and locally sourced equipment, reduced tax deductions on income based on the size of the investment, interest rate support on investment loans for projects which involve the Ministry of Economy delivering reimbursement up to a certain threshold, and land provision for projects on specific locations. As part of Turkey's wider plan for the coming decade, the 2023 Vision, the year in which the country's centenary will be celebrated, ambitious targets have been set for the energy sector and for the contribution of renewable sources to the mix. The total installed power capacity is expected to increase to 120GW, an enormous climb from the 31.84GW available in 2002 and the current capacity of around 74GW. The share of sustainable sources will be 30% if all goes to plan, and if sufficient levels of investor interest in private sector opportunities in the segment are reached. The main area being concentrated on is hydropower, but wind energy's contribution will also be expanded to 20,000MW, while a lower objective of 5,000MW of solar energy and 1,000MW of geothermal energy will round out the combination of renewables. The opportunities presented by sustainable energy in Turkey are numerous, and with the government's wide-ranging incentive program, it is the perfect time to explore the exciting possibilities on offer.

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SAN FRANCISCO

Airbnb's cohesive culture and unusual financial discipline mark it out

UNTIL recently “Uber envy” afflicted many top executives at Airbnb, a platform for booking overnight stays in other people’s homes. So admits a big investor in the firm. The two companies often raised money at the same time, and the ride-hailing giant reliably received more cash and closer attention. Uber is America’s most valuable private technology firm, with a valuation of close to \$70bn at last count; Airbnb is still in second place with a value of around \$30bn. But with Uber facing a series of setbacks, including allegations of intellectual-property theft, departures by senior executives and a consumer boycott, jealousy in Airbnb’s hallways has largely evaporated.

It helps that the firm is on a tear. Last year 80m people booked stays on Airbnb, double the number in 2015 (see chart on next page). It now plans to expand into other bits of the market for accommodation, including luxury trips and business travel. New products, such as bespoke city tours, are in the works.

The firm’s ultimate aim is to evolve from being a platform for overnight stays into a comprehensive travel company, capturing an ever-greater share of tourists’ spending. In 2017 it may notch up as much as \$2.8bn in sales, up by around 65% from a year earlier; forecasts suggest it could reach \$8.5bn in revenues by 2020. An IPO may be in the offing, yet pitfalls also lie in wait. Chief among these is regulation, ensuring

guests’ safety and, increasingly, the need to fend off rivals such as Priceline, a fearfully efficient online travel-booking company.

Airbnb’s founders started as complete outsiders to the hospitality business and indeed, to commerce. Brian Chesky, its 35-year-old chief executive, had no previous business experience or technical expertise. Instead, he and one of his co-founders, Joe Gebbia, had studied design at Rhode Island School of Design before teaming up with a software engineer, Nathan Blecharczyk, to launch what was then called AirBed and Breakfast, with the aim of renting out air mattresses in apartments. They were so untutored in investing that when an early adviser suggested raising money from small investors known as “angels”, Mr Chesky thought people in Silicon Valley believed in celestial beings.

Both Airbnb and Uber—America’s two most valuable “unicorns”, private startups worth over \$1bn—operate platforms without owning the underlying rooms and cars that are being used; both take a cut from every transaction. Airbnb charges both guests (6-12% of total rental fees) and hosts (around 3% of their total earnings from the site). A particular feature of Airbnb’s model is that its rental listings are usually not available on the websites of any of its competitors, because hosts tend to be loyal. So while Uber is locked in a fierce competition with rivals in most markets for cus-

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tomers and drivers, and has chosen to subsidise journeys to avoid losing market share, Airbnb has no need to pay up to keep hosts and users.

An attention to costs that is uncommon in the startup world is also paying off handsomely. In 2015 Airbnb hired as its chief financial officer Laurence Tosi, who had previously done the same job at Blackstone, a private-equity firm. He is regarded as the adult supervision. Airbnb reportedly achieved profitability for the first time in the second half of 2016 and will make money in 2017. It has raised \$3bn and spent only around \$300m of it (Uber is said to have lost \$2.8bn in 2016 alone).

Rental health

Airbnb’s founders were early to recognise the importance of a strong, benign culture. (Uber, meanwhile, is under fire for its hard-charging practices.) Until 2013 the founders interviewed every job applicant, and today anyone who is hired still has to pass a “core values” interview, where they are judged not on their CV but on how they fit into the firm’s sensibility. This ensures that people have a sense of mission, even if some of the firm’s peppy idealism sounds naive to jaded journalists. Asked whether Airbnb is a technology or a travel company, Vlad Loktev, its director of product, looks cautious. “We’re more of a community company,” he says.

What of the future? Given its financial results, Mr Chesky maintains that “we don’t need to raise any more money ever again.” But the hiring of Mr Tosi and the push for financial discipline suggests the firm does want to go public, perhaps as soon as 2018. If so, Airbnb would come under scrutiny as never before.

Investors note that, although at first the website attracted cost-conscious millennials looking for a more authentic travel ex- ▶▶

▶ experience, growth now depends on broadening its base. Business travellers are one target. Airbnb has made it easier for firms to place roving employees in hosts' rooms instead of in hotels. It has set up partnerships with companies, such as Hyundai, a carmaker, and Domino's Pizza, a food chain, to make it easier to find rooms that are suitable for their employees, whose chief needs are wireless internet, a desk and 24-hour check-in. Employees from 250,000 companies now regularly book travel on Airbnb.

The firm also wants to appeal to wealthy globe-trotters. In February Airbnb bought a holiday rental site, Luxury Retreats, for around \$300m. This brings it a portfolio of expensive properties, many of which are rented for thousands of dollars a night. Bringing in more of the mass market will meanwhile require regular additions of new, mid-range inventory. Airbnb must decide how much to favour quantity of listings, which will help it become an automatic place for people to look for accommodation, over quality.

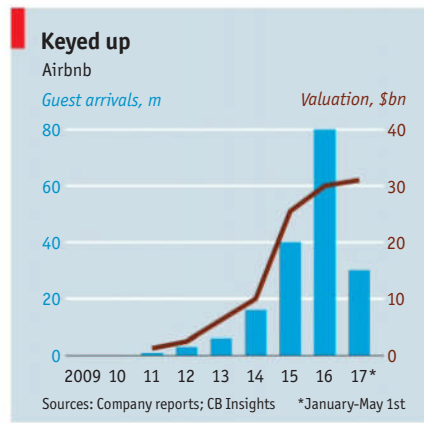
Either way, the rivalry between Airbnb and hotels will surely intensify. An analysis by Morgan Stanley, a bank, suggests that the number of overnight stays in Airbnb accommodation will reach 6% of all hotel nights in America and Europe by 2018, up from 4% in 2016. The chief impact upon hotels so far has been to stop them raising rates. Airbnb brings a supply of available rooms to market whenever there is demand, a blow to hotels that used to be able to charge dizzying prices at peak times.

You can't handle the roof

Lobbying by the hotel industry has contributed to Airbnb's most obvious challenge, which is regulation. Opposition to the firm is fierce in many big cities, especially those with limited affordable housing, where residents blame Airbnb for taking apartments off the market. Several cities that could supply large profits, including Berlin, Barcelona and New York, have imposed rules that make offering short-term rentals difficult. New York, which is Airbnb's third-largest market, has banned short-term rentals in apartment buildings for less than 30 days, unless a host is present. Berlin has passed a de facto ban, by requiring a permit if someone wants to rent more than half of their apartment on a short-term basis and levying hefty fines for violations.

Airbnb has now opted for a new, more conciliatory approach, notes Leigh Gallagher, author of a book, "The Airbnb Story". In Amsterdam and London it has agreed to police its listings to ensure they comply with local laws on the number of days a year each unit can be rented. Yet many investors worry that more restrictive laws will dampen its prospects.

A second, ever-present risk is safety. The



platform functions because people trust that user photos and blind reviews will help root out bad actors. It faced a crisis in 2011 when Airbnb guests trashed a host's apartment and she blogged about the experience. Airbnb responded by offering insurance to all hosts of up to \$1m in damages. There remains the possibility of a dramatic breach in personal security, which could spook hosts and users.

The third threat is growing competition. Airbnb was not the first firm to pursue the concept of alternatives to hotels, but it was the first to become a global success. That has drawn the attention of others. In many markets, including China and Europe, Airbnb faces competition from local firms, as well as from established global players. In 2015 Expedia, an online-travel website, bought HomeAway, an Airbnb rival, for a hefty \$3.9bn.

But Airbnb's most fearsome competitor is Priceline, which owns Booking.com and is considered one of the best-managed internet companies in the world. Priceline has been speedily adding alternative accommodation. Mr Chesky insists that "there is fundamentally not a lot of overlap between what they're offering and what we're offering", because Priceline is working mostly with property-management companies that "look more like hotels". But this will be less true over time. Priceline is too astute to let Airbnb win a category worth owning without a challenge.

The travel industry is a large prize to share. Globally, people spend around \$700bn a year on travel accommodation, according to Euromonitor International, a research firm. With rising incomes and smaller families globally, travel is ever more popular. Many more people than first thought have been willing to forgo hotel luxuries such as gyms and concierges to get the proper feel of a place. That suggests that alternative accommodation will not be a fringe activity for the young, but a mainstream part of the travel business.

In any case, Airbnb's aspirations do not end there. It has created an innovation and design lab, called Samara, with the ambition of creating a new kind of travel offer-

ing. Last autumn Airbnb started selling "experiences", which are customised activities that travellers can book, including special meals, tours and exercise programmes, typically arranged by Airbnb hosts. Your correspondent booked a bicycle tour of San Francisco's Mission neighbourhood. The tour was enjoyable and included a visit to a secret bookstore, Bolerium Books, where works are arranged not by author but by social movement. But for \$100, excluding lunch, the price seems even steeper than San Francisco's hills. There are plenty of other firms offering tours and things to do.

There have also been murmurs that Airbnb will move into flights. Finding online flight options for travellers is a painfully low-margin business. Companies like Priceline and Expedia make the bulk of their revenue from hotels. But that is not the model Airbnb wants to embrace anyway, says Mr Blecharczyk, who declines to share more details on what Airbnb's approach to air travel might look like. "If we're going to do something, we should try to do it differently," he says.

It is possible that Airbnb's best idea will be its first one. It will be up to the firm and one day, perhaps, to its public shareholders to decide whether it is worth pursuing new, ancillary opportunities, when there is still so much to win in the market for travel accommodation. In chasing after a new dream before the first one is realised, Airbnb does bear one resemblance to its Silicon Valley peers. ■

Ford

Can he Hackett?

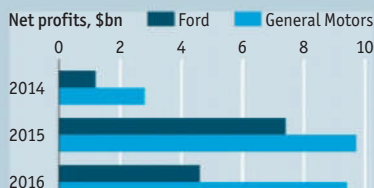
A sudden change at the top is a sign of an uncertain future

THE abrupt departure of Ford's boss, Mark Fields, which the firm announced on May 22nd, has two explanations. Investors had become restive at its performance, particularly in the past year. But Mr Fields was also perceived to lack the drive of Alan Mulally, the man he succeeded. In replacing him with Jim Hackett (pictured on next page), who ran an office-furniture company before joining Ford's board in 2013 and more recently led the firm's mobility unit, Ford hopes to conquer current problems and shore up its future strategy.

Ford's shares have declined by nearly 40% since Mr Fields took over (see chart). Though it made record profits in 2015 and had strong results in 2016, investors reckoned a booming North American market, on which it relies for nearly two-thirds of revenues, would slow. They also disliked ▶▶

Less than electrifying

Share prices, July 1st 2014=100



Sources: Thomson Reuters; company reports

▶ the fact that Mr Fields had to invest heavily in new technologies. Ford suffered the ignominy of its market capitalisation being surpassed by Tesla, a maker of electric cars which turns out a fraction of the 6.6m vehicles that roll off Ford production lines each year. Being slammed for running a declining firm and for hurting profits by investing in the future was a no-win situation.

Despite his relative lack of experience in the carmaking business, Ford presented Mr Hackett as the “transformational leader” to “re-energise” the firm. After running Ford Smart Mobility, a unit overseeing driverless cars and other new technologies, Mr Hackett may combine an insider’s feel and, like Mr Mulally, an outsider’s ability to challenge the status quo. He promises to speed decision-making, cut bureaucracy and, less convincingly, to add a dose of “fun” at Ford.

Adjustment is required across the industry. Selling services will present a huge challenge to firms hitherto geared to selling cars. New competition from tech firms

such as Google, Apple and Tesla has instilled a sense of panic among all carmakers as they grapple with new technology.

Nonetheless, Ford is under pressure to catch up with its rivals and to communicate better. GM recently launched the Bolt, a cheapish electric car, and has been commended for far-sighted investments in Lyft, a ride-hailing service, and Cruise Automation, a self-driving startup. Ford’s plans for electrification are far less advanced, and a recent investment of \$1bn in Argo, another self-driving startup, was criticised as too pricey. Mr Hackett will leave the job of managing external relations to the smooth-talking Bill Ford, the company’s chairman and a member of the family that still controls the carmaker.

As well as casting an eye to the future, Mr Hackett will have to face Ford’s present ills. There is not much he can do about its lack of scale compared with the industry’s big hitters. Few carmakers are ready to risk the big mergers that would address the industry’s overcapacity. Nor can he do much to improve a brand that lacks cachet. Ford’s foreign operations have weak returns. GM has been more aggressive: selling its European operations and shutting down in India and South Africa. To tackle overcapacity Ford recently said it would cut its global salaried workforce by a tenth, but that may not be enough to stem losses in India and other emerging markets. A dependence on America will prove troublesome, as the market seems to have peaked.

Another task will be to set up a successor to steer the company in a few years’ time, when new technologies will have become an even more important part of Ford’s business. Jim Farley, Ford’s European boss, and Joe Hinrichs, in charge of the Americas, will take more senior roles, both in Detroit, to be groomed. If Mr Hackett can ensure that the next change at the top occurs at a more measured pace, that will be something. ■



SoftBank

A vision of \$93bn

The size of the Japanese firm’s new fund won’t guarantee success

“I HAVEN’T accomplished anything I can be proud of in my 60 years on Earth,” Masayoshi Son, the boss of SoftBank, a Japanese telecoms group, recently confided. Now he has enough money to make a dent in the universe: on May 20th SoftBank and Saudi Arabia’s Public Investment Fund (PIF), along with smaller investors including Apple and Sharp, launched the world’s largest technology-investment fund, worth nearly \$100bn. How will Mr Son and his team deploy these riches?

He has a vision to match his vehicle. Within 30 years, he predicts, the world will be populated by billions of robots, many of them more intelligent than humans. Several of SoftBank’s recent acquisitions, most of which are expected to be part of the fund’s portfolio, should be seen in this light. ARM, a British chip firm acquired for a whopping \$32bn last year, will design the brains for the robots. OneWeb, a satellite startup in which SoftBank acquired a 40% stake for \$1bn in December, will connect them. Nvidia, another chip-design firm, in which SoftBank has bought a big stake, reportedly of \$4bn, is meant to provide processors for artificial-intelligence services.

The fund’s investment team, which will eventually number 100, has another dozen deals in the pipeline. These will be followed by a further 40 or so, although not all of them will fit neatly into Mr Son’s vision (biotech investments will be considered, for instance). Deal sizes will range between \$500m and \$3bn, although another ▶▶



Fun comes to the Blue Oval

▶ ARM-sized acquisition is a possibility, too. The fund has five years to invest its money and will run for a maximum of 14 years.

Making so many investments in the fast-moving tech world would be challenging in any circumstances. Another complexity is the influence likely to be exerted by the PIF, which has promised up to \$45bn for the fund; Saudi Arabia seems to see it as a means to further its plans to diversify the economy (though insiders deny reports that the PIF has a veto right). Then there is Mr Son's promise to Donald Trump to invest \$50bn in America and create 50,000 jobs. Potential conflicts of interest have to be managed, too: SoftBank itself will invest \$28bn in the fund, \$8.2bn of that in the form of a stake in ARM, with the rest of ARM remaining in SoftBank's hands.

Other tech investors look at the fund with a mix of scepticism and greed. Many think SoftBank lacks a successful record in tech investing, excluding an early stake in Alibaba, a Chinese internet giant. "You don't get into investing with no real experience and want to deploy \$100bn," scoffs an executive at one of Silicon Valley's most illustrious venture-capital firms. But Mr Son's fund, which is bigger than all investments of American venture-capital firms in 2016 combined, could help solve their "unicorn" problem: how to unload profitably the many private tech startups worth more than \$1bn. ■

Netflix

Curtain call

CANNES

A bête noire of cinema operators gets a better reception at the film festival

THE rise of Netflix has been greeted frostily by some of the old guard at the Cannes film festival, where the American streaming giant's disregard for releasing films in cinemas wins it few friends. It looked a bit more at home on May 21st, as the lights went up at the Louis Lumière theatre. The stars of its own film, "The Meyerowitz Stories (New and Selected)", a comedy drama, accepted a standing ovation from the audience. Ted Sarandos, Netflix's head of content, stood alongside Dustin Hoffman, Ben Stiller and other cast members. Festival-goers jostled for a word with him at a swanky after-party.

This is the first year that Netflix has been admitted into the festival's competition, with two films, "The Meyerowitz Stories" and "Okja", directed by Bong Joon-ho of South Korea. Still, cries of protest from French film-industry executives prompted Thierry Frémaux, the festival director, to declare that, in future, only films guaran-

Collectables

Sole trading

NEW YORK

The market for rare trainers is booming

WHEN Marty McFly donned his self-lacing Nike trainers in the distant future of 2015, he really should have kept them in the box. Almost 30 years on from "Back to the Future II", Nike's real-life version, released in 2016, is the most expensive training shoe on the planet, with an average resale price of \$32,275. These rarest of shoes (only 89 pairs were made) are at the apex of a resale market that has been carefully nurtured by Nike and other trainer titans since the late 1980s.

Every Saturday morning across America, queues of "sneakerheads" form outside trainer shops. Many are adding to their hundred-pair collections, but the rest are seeking shoes to sell in the secondary market. As brands try to strike a balance between generating instant revenue and restricting supply (which creates demand, and more revenue later), the secondary trade thrives. In America it is worth an estimated \$1.5bn a year, a tenth of the trainer industry's value.

By announcing small runs, without restocks, brands build huge excitement around specific lines. One man epitomises the importance of limited releases for the big firms. Since Kanye West switched allegiance from Nike to Adidas in 2013, Adidas's share of the resale market has risen from less than 1% to 33%, and its share price has doubled. His latest shoe, around 100,000 pairs of which were released in April, is selling for more than double the retail price. The hype has not been without its problems. Black-Friday-style chaos in the shops has become so common that brands have taken steps to calm shoppers, instructing retailers to move trainer releases from midnight to early morning.

A combination of eBay, social media and online markets has helped move the secondary market off the street. eBay pioneered collectible-trainer resales online in the late 1990s and accounts for a third of the market, but is now less domi-

teed a theatrical release in France can qualify for the top Palme d'Or prize. Pedro Almodóvar, a film director and president of the jury, groused that he could not imagine a winner that could be seen only on small screens. During a press screening of "Okja", Netflix's logo was met by a smattering of boos.

The controversy turns, appropriately enough for the French, on an existential question: if a film is never shown in cine-

nant, partly due to an epidemic of counterfeiting. Twitter and Instagram, where consumers scroll through feeds and interact directly with sellers, are the latest boosts to the secondary market. Annual sales directly through Instagram have been estimated at \$200m in America.

"Stockmarkets" for box-fresh shoes have also sprung up, offering anti-counterfeiting services from professional sneakerheads. These function like traditional exchanges, with sellers setting a price and bidders making offers, except that when a sale takes place the trainers are shipped via companies for verification. Stockx, founded in February 2016, hosts more than 100,000 trainer portfolios and expects sales volume to pass \$100m this year. GOAT, a marketplace app started in 2015, claims 1.5m members.

There are big sums to be made. Josh Lubner, co-founder of Stockx, says that each trainer's appearance on the markets is akin to an initial purchase offering: "The sneakers' value is immediately realised and people make a lot of money from that initial pop." A portfolio of ten popular pairs on Stockx, all released in the past six months, would have yielded a return on investment of almost \$7,500, or 280%. Time to go short?



All star investments

mas, is it still a film? Netflix's run at Cannes this year suggests that the majority of film types, at least, answer with a resounding "yes". Independent film financiers, producers, directors and actors, including local ones, regard Mr Sarandos as, in effect, a Hollywood studio chief—but one who stakes big money on independent film.

Therein lies the rub. In this age of Marvel superhero sequels and Harry Potter spin-offs, indie films struggle for custom- ▶▶

ers. The median return on a low-budget film at the American box office is 45 cents on the dollar. With 100m subscribers globally, Netflix uses different maths to justify investments, including whether a film works for a specific segment of customers. And it has a lot of cash. Netflix will spend more than \$7bn on content this year.

Critics lament that no one will see Netflix's films in a cinema. (Amazon, its big rival in streaming video, has decided to support cinema-first distribution; and Netflix itself does occasionally put films in cinemas in a few countries.) The criticism is especially political in France, the birthplace of film. Whereas Netflix has a business model that can finance less commercial, arty films, France's government heavily subsidises such production. It imposes a "culture tax" on cinemas and broadcasters and also obliges TV networks to invest in film-making. Another part of the system is a three-year delay between a film's release in theatres and its availability over internet services, which protects cinemas and physical-media formats.

That delay was the sticking-point between Netflix and Cannes. Mr Sarandos says Netflix tried and failed to obtain a waiver so that its festival entries could appear in cinemas briefly. No matter. Despite Mr Frémaux's ruling, Mr Sarandos expects to be back competing at Cannes. It will be hard for the festival's film buffs to keep resisting Mr Stiller's argument: that while he wants to see movies in cinemas, "studios aren't making the movies Ted's making." ■

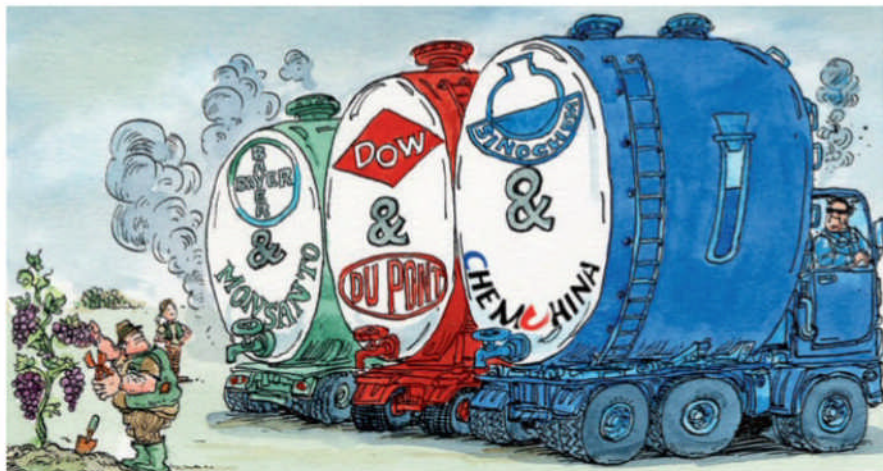
The chemicals industry

Chain reaction

To farmers' chagrin, deal mania has seized the chemicals business

AS SPRING arrives, the hills of Languedoc in southern France turn green with the leaves of grapevines. This is helped along by chemicals—lots of them, confides a winemaker based near the town of Thuir in the Pyrenees. In their absence, vineyards would need natural fertilisers and to be weeded by hand, both costly. French farmers use more chemicals than anyone else in Europe: 65,000 tonnes of pesticides alone each year.

Even the smallest of vine-growers has an interest in a series of takeovers proposed between their chemicals suppliers. After a decade without any big deals, since 2015 three mega-mergers, collectively worth around \$240bn, have been proposed. When they were first announced, many doubted that regulators would allow the mergers because of competition



worries. If all three proceed, as now seems likely, four companies will produce 70% of the world's pesticides instead of six today.

The first mega-merger, announced in December 2015, was between Dow Chemical and DuPont, the world's fourth and fifth most valuable chemicals firms, in a \$130bn deal. It was the largest-ever tie-up in the industry, and triggered other liaisons. Within a year Bayer, a German agrichemicals giant, agreed to merge with Monsanto, an American seedmaker, in a deal worth \$66bn; and ChemChina, a Chinese giant, offered \$43bn in cash for Syngenta, a Swiss biotech firm. ChemChina plans to merge with a local rival, Sinochem, to create a firm with revenues of \$100bn or so.

Dealmaking has now spread from agrichemicals to the rest of the industry, particularly to "specialty" firms that make chemicals for niche uses. On May 22nd Clariant and Huntsman, whose products include additives for pesticides, agreed a \$14bn merger of equals. Bigger still is the latest bid by PPG of America, a specialty maker of paints and coatings, for AkzoNobel of the Netherlands, a rival which owns Dulux paint. On May 24th, Praxair and Linde, two industrial-gas firms, agreed the terms of a merger of equals worth \$70bn.

The main impetus has been a dramatic slowdown in the growth of demand across all types of chemicals, says P.J. Juvekar of Citigroup, a bank. In the 2000s sales expanded at a rate of 6-7% a year, but last year the industry grew by just 2%, with demand from China very weak. Executives are hoping to use scale to cut costs.

The soaring cost of developing and testing new chemicals is another factor, says Kurt Bock, CEO of BASF, a German chemicals giant. The average cost of developing a new active substance has shot up from \$150m in 1995 to over \$500m in Europe today; most of that goes on testing for safety. Over the same period, the number of potential compounds that have to be synthesised and tested for each new substance, in case they are harmful, has risen from 50,000 to over 140,000, a process that can

take as long as a decade. To account for longer and more costly development cycles, firms need enough financial heft to be able to have more projects on the go.

More stringent regulation throughout the EU has reduced the number of pesticides farmers are permitted to use, from nearly 1,000 in the early 1990s to around 400 today, notes Robert de Graeff of the European Landowners' Organisation, a trade group. If greater scale means that firms feel able to invest the larger sums of money needed to develop new products, his members would approve.

But farmers are also fearful. They don't want to become overdependent on a set of seeds and chemicals made by a single firm. All three of the mega-mergers are between one firm focused on seeds and another on agrichemicals. Many farmers are worried this will mean they will be forced to use pesticides made by the same firm that produces the seeds they buy. Roger Johnson, president of America's National Farmers Union, says that his members don't like any of the mergers. More consolidation may also mean that chemical firms can charge higher prices, he fears, and face less pressure to develop new products.

But all the deals should pass regulators. The EU has signed off on the Dow-DuPont and ChemChina-Syngenta deals; it is now almost certain that the deals will go through, says Mr Juvekar. Bayer is in talks with regulators about Monsanto; analysts again reckon that a deal will proceed.

Regulators' relaxed stance is likely to stimulate still more activity. The ease with which ChemChina's purchase of Syngenta was approved may embolden more Chinese firms to go for Western chemical companies in the future. The current series of deals—though huge—looks like the start of a bigger wave, says Florian Budde of McKinsey, a consultancy. Farmers are likely to have more to worry about. ■

Clarification: In the issue of May 20th Schumpeter referred to staff turnover at Dow Chemical. The fact that a third of staff joined in the past five years was largely due to the buying and selling of businesses.

Schumpeter | General Eclectic

The reign of Jeff Immelt, GE's boss, shows that capital allocation is hellishly difficult

BOSSES come in all shapes and sizes. One way to categorise them is to split them into two types: polishers and pickers. Polishers put their energy into products, improving and reimagining their design and production in a quest for perfection. Long after Apple had become one of the planet's most valuable firms, its boss, Steve Jobs (who died in 2011), obsessed over "the finish on a piece of metal, the curve of the head of a screw, the shade of blue on a box", writes his biographer, Walter Isaacson.

Pickers, by contrast, are capital allocators, who stand back and decide unsentimentally how the firm should deploy resources. An example of this approach is Jeff Immelt, who runs General Electric (GE), the world's most valuable industrial firm. Mr Immelt's record since taking over in 2001 shows that capital allocation is far harder than you might think.

Most chief executives would say they are more pickers than polishers. The task of creating the iPhone, devising a new drug or honing a manufacturing process is best left to geniuses such as Mr Jobs or to internal experts. By contrast capital allocation happens to a CEO, like it or not. Consider a firm that reinvests 10% of its net worth every year. By their tenth year in charge the CEO's choices about deploying cash—including a decision to just sleepwalk—will explain 60% of the firm's book value.

Taking firm control of the process makes obvious sense. In the 1970s the logic of starving lousy businesses and feeding good ones was spread by management-consulting firms. BCG told firms to split portfolios into four buckets: cash cows worth milking, stars, dogs that should be shot and question-marks. Today the consultancy reckons that businesses shift between the buckets twice as fast as they did in the 1990s.

Mr Immelt has remade GE partly because he had a tricky inheritance. GE's shares were overvalued, its earnings were inflated by gains from its pension scheme, and it had overexpanded its financial arm, which later blew up during the banking crisis. He has globalised GE: 57% of sales now come from abroad, up from 29% in 2001. And he has loosened up its culture. Its old head office, in Connecticut, sat amid suburbs and golf courses. Its new digs in Boston are next to an art institute.

But the main legacy of Mr Immelt will be as a capital allocator. He has shrunk or sold businesses that are mature or under margin pressure, such as plastics and kitchen appliances, or where GE has no advantage, such as media. He has killed off most of its financial arm. And he has bought in areas with promising growth

stories where tech is becoming more important, such as aviation, power systems and medical devices. The scale of change has been huge. Outside the financial arm, looking just at industrial operations, since 2001 GE has traded businesses worth \$126bn, or 167% of the capital employed in its industrial divisions. Counting capital expenditures, too, Mr Immelt has redirected resources worth a colossal 227% of GE's capital base.

The results are less impressive than you might expect. Annual free cashflow from GE's industrial business was around \$10bn in 2001 and the figure has not risen even as its capital employed has increased from below \$30bn to \$75bn (see chart). Cash returns on capital have fallen to about 12%. Partly reflecting this, GE's shares have lagged behind the S&P 500 index over most periods.

Why does a logical strategy, methodically implemented by competent people, not succeed better? Active capital allocation carries a danger: it can be procyclical, magnifying the swings in sentiment that most industries face. Businesses that are performing well often have profits that are at cyclical highs and that are valued at inflated levels. As Warren Buffett puts it, "What is smart at one price is dumb at another."

In "The Outsiders", a cult business book, William Thorndike studies eight bosses whose firms on average have outpaced the S&P 500 by a factor of 20. They may have been obsessed with capital allocation, but they bought into deeply unfashionable things, from decrepit cable-TV networks in rural America (John Malone at TCI), to the makers of Twinkies (Bill Stiritz at Ralston Purina). Bucking accepted wisdom is, however, extraordinarily hard for CEOs of big, iconic firms, who must build a consensus among executives, directors and shareholders.

Spit and polish

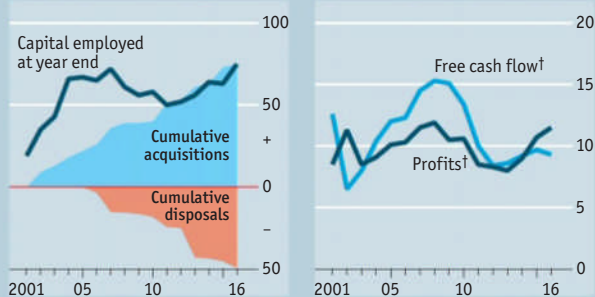
The cost of churning capital in predictable ways can be significant. Schumpeter estimates that GE has paid a multiple of 13 times gross operating profits for the businesses it has bought and got 9 times for those it sold. Some nine-tenths of its industrial capital is now comprised of goodwill, or the premium that a firm paid above book value for its acquisitions. A company's capital expenditure can also be procyclical. For example, in 2010-14 GE ramped up investment in its oil and gas business, at a point when energy prices were high, then cut back after they slumped in 2015.

For businesses in aggregate, and their investors, churning portfolios brings some benefits. Firms must respond to changes in customer tastes and technology. They may be able to boost their market shares for some products, allowing them to raise prices. But it seems unlikely that hyperactive capital allocation greatly enhances wealth overall. Deals are often a zero-sum game. It is impossible for every firm to own only outperforming businesses. And the fees lawyers and bankers charge are a tax on corporate activity that corrodes value.

For Mr Immelt the jury is still out. GE's profits are rising even as its cash flows stall, as it books the gains it expects to make on long-term infrastructure projects and servicing contracts. It has launched a new jet engine, called Leap, and is investing heavily in Predix, an open data platform that it hopes will become an operating base for a host of industrial digital applications. And it is buying new assets at the bottom of the cycle, with a planned merger of its energy business with Baker Hughes, an oil-services firm. Mr Immelt will probably retire soon. His successor will surely come under pressure to undertake another massive reshuffle of what GE owns. Far better now to polish what it has. ■

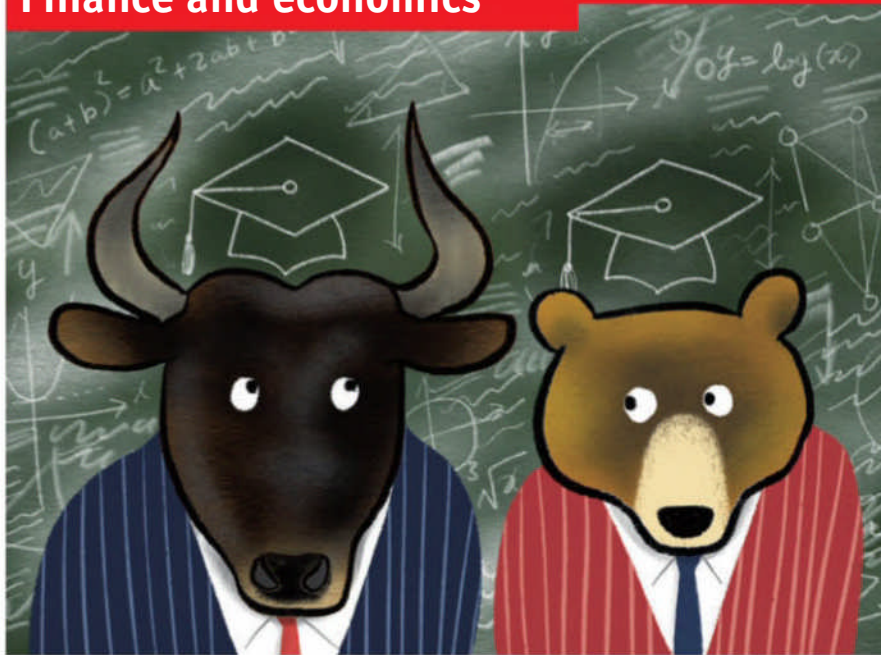
Running to stand still

GE's transformation since 2001*, \$bn



Sources: Company reports; *The Economist*

*All figures exclude GE's financial arm
†After tax, before interest costs



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Stockpicking

Quants and the quirks

Markets and academic theories are changing in tandem

BUILD a better mousetrap, the saying goes, and the world will beat a path to your door. Find a way to beat the stockmarket and they will construct a high-speed railway. As investors try to achieve this goal, they draw on the work of academics. But in doing so, they are both changing the markets and the way academics understand them.

The idea that financial markets are “efficient” became widespread among academics in the 1960s and 1970s. The hypothesis stated that all information relevant to an asset’s value would instantly be reflected in the price; little point, therefore, in trading on the basis of such data. What would move the price would be future information (news) which, by definition, could not be known in advance. Share prices would follow a “random walk”. Indeed, a book called “A Random Walk Down Wall Street” became a bestseller.

The idea helped inspire the creation of index-trackers—funds that simply buy all the shares in a benchmark like the S&P 500. From small beginnings in the 1970s, trackers have been steadily gaining market share. They command around 20% of all assets under management today.

But the efficient-market hypothesis has repeatedly been challenged. When the American stockmarket fell by 23% in a single day in October 1987, it was hard to find a reason why investors should have

changed their assumptions so rapidly and substantially about the fair value of equities. Robert Shiller of Yale won a Nobel prize in economics for work showing that the overall stockmarket was far more volatile than it should be if traders were adequately forecasting the fundamental data: the cashflows received by investors.

Another example of theory and practice parting company is in the foreign-exchange market. When Sushil Wadhvani left a hedge fund to join the Bank of England’s monetary policy committee (MPC) in 1999, he was taken aback by the way the bank forecast currency movements. The bank relied on a theory called “uncovered interest parity”, which states that the inter-

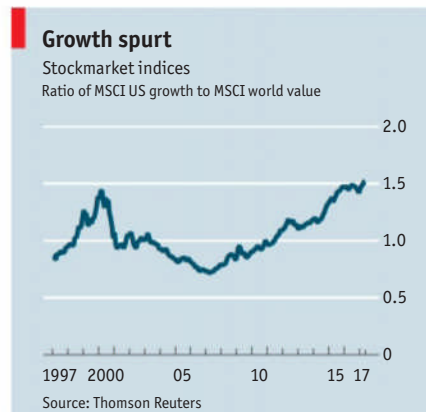
est-rate differential between two countries reflects the expected change in exchange rates. In effect, this meant that the forward rate in the currency market was the best predictor of exchange-rate movements.

Mr Wadhvani was surprised by this approach, since he knew many people who used the “carry trade”, ie, borrowing money in a low-yielding currency and investing in a higher-yielding one. If the bank was right, such a trade should be unprofitable. After some debate, the bank agreed on a classic British compromise: it forecast the currency would move half the distance implied by forward rates.

Many who work in finance still believe they can beat the market. After all, there was a potential flaw at the heart of the efficient-market theory. For information to be reflected in prices, there had to be trading. But why would people trade if their efforts were doomed to be unprofitable?

One notion, says Antti Ilmanen, a former academic who now works for AQR, a fund-management company, is that markets are “efficiently inefficient”. In other words, the average Joe has no hope of beating the market. But if you devote enough capital and computer power to the effort, you can succeed.

That helps explain the rise of the quantitative investors, or “quants”, who attempt to exploit anomalies—quirks that cannot be explained by the efficient-mar- ▶▶



Internship: *The Economist* invites applications for the 2017 Marjorie Deane internship. Paid for by the Marjorie Deane Financial Journalism Foundation, the award is designed to provide work experience for a promising journalist or would-be journalist, who will spend three months at *The Economist* writing about economics and finance. To apply, write a covering letter and an original article of no more than 500 words suitable for publication in the Finance and economics section. Applications should be sent by June 2nd to deaneintern@economist.com. For more information, please visit www.marjoriedeane.com.

ket hypothesis. One example is the momentum effect: shares that have outperformed the market in the recent past continue to do so. Another is the “low-volatility” effect: shares that move less violently than the market produce better risk-adjusted returns than theory predicts.

A new breed of funds, known in the jargon as “smart beta”, have emerged to exploit these anomalies. In a sense these funds are simply trying to mimic, in a systematic way, the methods used by traditional fund managers who interview executives and pore over balance-sheets in an attempt to pick outperforming stocks.

Whether these funds will prosper depends on why the anomalies have been profitable in the past. There are three possibilities. The first is that the anomalies are statistical quirks; interrogate the data for long enough and you may find that stocks outperform on wet Mondays in April. That does not mean they will continue to do so.

The second possibility is that the excess returns are compensation for risk. Smaller companies can deliver outsize returns but their shares are less liquid, and thus more difficult to sell when you need to; the firms are also more likely to go bust. Two academics, Eugene Fama and Kenneth French,

have argued that most anomalies can be explained by three factors: a company’s size; its price relative to its assets (the value effect); and its volatility.

The third possibility is that the returns reflect some quirk of behaviour. The outsize returns of momentum stocks may have been because investors were slow to realise that a company’s fortunes had improved. But behaviour can change; Mr Wadhvani says share prices are moving more on the day of earnings announcements, relative to subsequent days, than they were 20 years ago. In other words, investors are reacting faster. The carry trade ▶▶

Buttonwood | Bumper buy-backs

A new paper argues that, to forecast share returns, buy-backs as well as dividends must be counted

WHAT is the point of buying shares? Ultimately investors must hope that the cash they receive from the company will offer an attractive long-term return.

Over the long run, reinvested dividends rather than capital gains have comprised the vast bulk of returns. But since the 1980s American firms have increasingly used share buy-backs, which have tax advantages for some investors. Buy-backs have been higher than dividend payments in eight of the past ten years.

In a buy-back, investors receive cash for a proportion of their holdings. A new paper* in the *Financial Analysts Journal* argues that adding this to dividend receipts to calculate a total payout yield gives a better estimate of future returns than the dividend yield alone. It also reveals a much better match between stockmarket performance and overall economic growth.

Using data going back to 1871, the authors find that the average dividend yield has been 4.5% and the total payout yield 4.89%. Since 1970 the dividend yield has dropped to 3.03%, but the total payout yield has averaged 4.26%. Looked at on that basis, the overall income return from shares has been not that far below historical levels.

The return from shares can be broken down into three components: the initial income yield; growth in the income stream; and any change in valuation. (If shares become more expensive, the yield will fall. Say the dividend is \$6 and the share price is \$100, the initial yield will be 6%. If the shares rise to \$120, the yield will fall to 5% but the investors will have made a capital gain.)

Over the long run, changes in valuation levels do not make much difference to the return. What has driven stockmarket returns in recent decades is that total

payouts have grown faster than before. The growth rate since 1871 has been 2.05%; since 1970, it has been 3.44%. That is probably because of strong corporate profits, which recently hit a post-1945 high as a proportion of America’s GDP.

An obvious apparent difference between dividends and buy-backs is that every shareholder gets the dividend but not all of them tend to take part in a buy-back. But theory suggests investors should gain from a share buy-back even if they do not take part. The buy-back will reduce the number of shares in issue, giving existing investors a proportionately larger claim on the profits and assets of the company.

Over time, buy-backs are offset by the shares companies issue to make acquisitions and honour executive share-option schemes. In the half century since 1970 new share issuance has exceeded buy-backs. But in the ten years to 2014, on average, buy-backs have predominated.

The authors also experiment with using the total payout yield as a yardstick of whether stocks are dear or cheap. By averaging the yield over ten years, they work out the cyclically-adjusted total yield

(CATY) and compare it with the cyclically-adjusted price-earnings ratio (CAPE), which averages corporate profits. They find that CATY is at least as good as CAPE in predicting market movements.

As for the link with economic growth, it is often hard to find a short-term correlation between this and stockmarket performance, which tends to be much more volatile. But the authors found that, over the very long run, growth in the aggregate payout from American equities has matched that of the country’s GDP (see chart), and payout-per-share growth has matched that of GDP per head.

There is no guarantee that this relationship will continue. Payouts lagged a long way behind GDP in the second half of the 20th century, and have only caught up because of the surge in buy-backs. And the stockmarket is much more international than it used to be; almost half the revenues of S&P 500 companies come from outside America.

Focusing on total payouts allows the authors to be a bit more optimistic in their forecasts of future returns than the traditional dividend-based approach would suggest. Historically, total payouts have grown by around 1.67% per year, compared with 1.46% for dividends alone. Combine that with the current payout yield and you get an expected future real return of 5.1%, compared with just 3.6% if dividends alone are used. Whether even that return, however, would be enough to meet defined-benefit pension promises, particularly those made to their workers by state and local governments in America, is another question.



* “The Long-Run Drivers of Stock Returns: Total Payouts and the Real Economy” by Philip Straehl and Roger Ibbotson

► is also less profitable than it used to be. Mr Ilmanen says it is likely that returns from smart-beta factors will be lower, now that the strategies are more popular.

If markets are changing, so too are the academics who study them. Many modern research papers focus on anomalies or on behavioural quirks that might cause investors to make apparently irrational decisions. The adaptive-markets hypothesis, devised by Andrew Lo of the Massachusetts Institute of Technology, suggests that the market develops in a manner akin to evolution. Traders and fund managers pursue strategies they believe will be profitable; those that are successful keep going; those that lose money, drop out.

The results can be dramatic. In August 2007 there was a “quant quake” as computerised strategies briefly stopped working; the suspicion was that one manager was offloading his positions after taking losses in the mortgage market. The episode hinted at a danger of the quant approach: if computers are all churning over the same data, they may be buying the same shares. At the moment American growth stocks, such as technology companies, are as expensive, relative to global value stocks, as they were during the dotcom bubble (see chart on previous page). What if the trend changes? No mathematical formula, however clever, can find a buyer for a trader’s positions when everyone is panicking. ■

Africa-EU trade

Blown off course

KAMPALA

Another trade deal adrift

THE winds that waft along the Swahili coast change direction with the seasons, a boon to traders in times past. Shifts in the political winds are harder to predict. Last July a proposed trade deal between five countries of the East African Community (EAC) and the EU was thrown into disarray when Tanzania backed out at the last minute. An EAC summit, scheduled for months ago, was meant to find a way forward. Held at last on May 20th in Dar es Salaam, after many postponements, only two presidents showed up. The deal is in the doldrums.

The pact is one of seven “Economic Partnership Agreements” (EPAs) the EU wants to sign with regional groups in Africa, the Caribbean and the Pacific. The first was agreed with the Caribbean in 2008; southern Africa followed suit last year. But progress in west Africa has also stalled, with Nigeria raising objections. The EPAs were promoted as a new breed of trade

Noble Group

Damsel in distress

SINGAPORE

A big commodities firm is teetering

THE difficulties facing Noble Group, a beleaguered Hong Kong commodities trader, are multiplying. On May 23rd the firm was forced to suspend trading of its shares in Singapore after their value slumped by more than 28% in half an hour. The panicked selling came after S&P Global, a ratings agency, warned that Noble was at risk of defaulting on large debt repayments that are due within the next 12 months. Investors were also rattled by reports from Reuters and the *Financial Times* suggesting that Sinochem, a Chinese conglomerate at one time tipped to take a stake in Noble, had lost interest in a deal.

Founded in 1986 by Richard Elman, a former scrap-metal merchant from London, Noble grew from an initial investment of \$100,000 to be worth more than \$10bn at its peak in 2010. But investors took fright in 2015 when a previously unknown group called Iceberg Research began publishing reports questioning Noble’s accounting practices (Noble has vigorously defended its book-keeping, and said a disgruntled former employee was behind the criticism). This controversy only made it tougher for the group to weather a global slump in commodity prices: over a calamitous two-year period the company has shed more than 90% of its value (see chart).

Of late, however, Noble had appeared to be making some progress towards recovery. It has been narrowing its focus to oil and coal, and selling off interests in agricultural trading and in power, among other sectors. After losing \$1.7bn in 2015, the company swung to a small profit last year. But this optimism faded rapidly in early May, when Noble forecast a first-quarter loss of \$130m—blamed largely on ill-judged coal trades—and warned that it might not return to profitability until 2019. Since then, ratings agencies—Moody’s and Fitch, as well as S&P Global—have all cut Noble’s credit rating,

deal, and were supposed to bring development and regional co-operation. So far they have brought neither.

Negotiations on EPAs began in 2002. Under previous conventions, the EU gave favourable market access to African, Caribbean and Pacific countries, most of them former colonies. That fell foul of World Trade Organisation rules. Hence the idea of EPAs: reciprocal deals, requiring both parties to open their markets.

Two obstacles have to be surmounted.

already classed as junk.

Noble’s share price tumbled further when trading of its stock restarted on May 24th before recovering to finish the day down by 8%. But the drama has drawn more attention to negotiations over a \$2bn credit facility which the group needs to finance its operations, and which has to be renewed or replaced at the end of June. The speculation is that Noble’s first-quarter losses have been scaring banks away.

Mervin Song, an analyst at DBS Vickers, guesses that Noble’s lenders will choose to “kick the can down the road”. But, says Margaret Yang of CMC Markets, a brokerage, in the longer term the group needs to find a “white knight” investor to take a stake. Noble has been looking for a saviour, and in a statement to the market on May 24th said that discussions with “various potential strategic parties” were in progress. It did not identify any of them; nor has it ever commented directly on talk of a tie-up with Sinochem. Sealing a deal is presumably the highest priority for the group’s new chairman, Paul Brough, a well-regarded troubleshooter who replaced Mr Elman on May 11th and is reviewing the company’s options. He may not have long to find an answer.

After the iceberg hit...

Noble Group, share price, \$5



First, EPAs overlap with existing trade arrangements. The poorest countries, like Tanzania, already enjoy duty-free and quota-free access to the EU under an initiative called “Everything But Arms”. That could one day be withdrawn, but at present they see little to gain by opening their markets.

Second, countries within the same region face different incentives. Take Kenya, richer than Tanzania and not eligible for Everything But Arms. It ratified the EPA last year and needs others to do so for the deal ►►



Magufuli advises Museveni on how to tilt at colonialism

▶ to come into force. It recalls the pain of 2014, when the EU briefly slapped tariffs on its exports, such as cut flowers, and is frustrated by Tanzanian foot-dragging.

A more profound question is whether EPAs really are good for development. African manufacturers worry about European competition: nascent industries are “prone to being overrun” by imports, warns Segun Ajayi-Kadir of the Manufacturers Association of Nigeria, which lobbies against the west African deal. EU officials point out that slashing tariffs will help manufacturing by making imported machinery cheaper. African markets would open gradually, and some sectors are excluded. Details vary, but EPAs typically liberalise about 80% of imports over 20 years. Many of those goods already enter duty-free.

The EPAs would make it harder (though not impossible) for countries to use certain kinds of industrial policy, such as export taxes. The EU does not think such policies do much good anyway. But some governments do, and do not want their hands tied. They fear that promised safeguards, such as an “infant industry” clause, to protect some domestic businesses, would be hard to invoke. They will also lose tariff revenues, an important source of income in countries where other taxes are tricky to raise. It all adds up to a “form of colonialism”, fumes John Magufuli, Tanzania’s interventionist president.

Economic evidence is mixed. Although models typically find trade gains on both sides, it is European exporters that would be the biggest winners. Within Africa, gains would mostly accrue to better-off countries in sectors such as sugar, meat and dairy (rather than to manufacturing industry). Their extra sales to the EU would come partly at the expense of trade with African partners, says David Luke of the UN Economic Commission for Africa.

Ultimately “it’s about politics”, argues

San Bilal of the European Centre for Development Policy Management, a think-tank. The EPAs are mired in regional rivalries, he notes, against a backdrop of global trade uncertainty after the Brexit vote and Donald Trump’s election. The next step for the east African deal is a quixotic mission to Brussels with Yoweri Museveni, the Ugandan president, at the helm. Don’t expect the trade winds to start blowing. ■

Foreign-exchange trading

Be good, or else

A new code of conduct aims to clean up a tarnished market

FINANCIAL-MARKET traders have earned a pretty shocking reputation in recent years. From manipulating LIBOR, a benchmark interest rate, to rigging the daily fix of foreign-exchange (FX) rates, traders have shown themselves ready not just to stretch the rules, but to collude in outright illegality.

A global code of conduct for the FX market, unveiled on May 25th, aims to put things on a sounder footing. Drawn up over the past two years by a coalition of central bankers, known as the FX Working Group (FXWG), and supported by a panel of industry participants, the code’s 55 principles lay down international standards on a range of practices, from the handling of confidential information to the pricing and settlement of deals.

Such standards seem long overdue in the massive FX market. Roughly \$5trn is traded every day (see chart). Many companies, pension funds and money managers depend on banks to hedge their exposure

to currency fluctuations. Yet in the past traders colluded with one another in internet chat rooms, secretly swapping client data in order to rig the widely used WM/Reuters benchmark exchange rates. Some were caught and fired. Banks such as Citigroup, HSBC, JPMorgan Chase, Royal Bank of Scotland and UBS paid billions of dollars in fines.

The FX market has always been lightly regulated, but many countries do have codes of conduct, usually drafted by the central bank in consultation with market participants. Often, however, the codes were defective: they missed areas vulnerable to malpractice; and were rarely updated, scantily enforced and widely flouted.

The new code starts with some advantages. It will supersede the national codes, and provide a single global set of principles, with adherence closely monitored by a newly formed committee of central bankers and trading institutions. It is also designed to reflect current market practice, with clear guidelines on communication between participants and on trade-execution practices—two areas of weakness highlighted by the scandal.

Managers of FX traders will now be enjoined to limit access to confidential information, and to ensure that clear guidance has been given on approved channels of communication. Greater disclosure is also demanded on how orders are processed, so that clients will never lose oversight and control of their trades.

The code will, however, be voluntary. Guy Debelle of the Reserve Bank of Australia, who led the drafting, reckons that to write binding rules for a global market would have been more convoluted and less effective. Principles, he argues, are harder to exploit or ignore than rules.

Alongside the code itself, the FXWG has developed a blueprint for adoption, which makes those active in the market responsible for embedding the code in their day-to-day operations. Central banks have committed themselves to leading by example, by implementing the code for their own FX activities. Consideration is being given to maintaining public registers of those who ▶▶



▶ have signed up. “I wouldn’t underestimate the impact of peer pressure in improving behaviour,” says Mr DeBelle.

Given the painfully low level of trust in foreign-exchange and other financial markets, central bankers are adamant that codes like these must not be ignored or allowed to become outdated. The new global fx committee will monitor the success of the project and consider the case for further updates.

But the incentives for adherence do not seem compelling. Whether the code actually prevents market malfeasance will be determined by the many institutions, large and small, that trade fx each day. And, as the market has proved in the past, it is important not to underestimate the power of peer pressure to worsen behaviour as well as improve it. ■

Tax evasion

An ORSome wheeze

Rich and tax-shy? Try a Hong Kong pension

THE global war on tax evasion rumbles on. What began as an American onslaught, with the Foreign Account Tax Compliance Act (FATCA) of 2010, has been joined by more than 100 countries through an initiative called the Common Reporting Standard (CRS). Under this, governments will exchange tax information on their financial firms’ clients on a regular, “automatic” basis, without having to be asked for it, starting this year. Holdouts such as Panama, the Bahamas and Lebanon have, one by one, been frogmarched into line.

But tax-dodgers and their advisers are enterprising sorts, eager to clamber through the smallest loophole—and gaps in the CRS there are. One involves becoming a pensioner in Hong Kong.

The territory, home to a big financial centre, has a type of pension known as an ORS (for Occupational Retirement Scheme). The beauty of ORS from a tax evader’s point of view is that anyone can get one and they are not caught in the CRS net. A German or Australian with money to hide can set up a Hong Kong shell company, appoint himself as its director, with a local employment contract, and sign up with a trust company that provides an ORS. He can throw in cash, property or other assets, oversee the account himself, retire as soon or as far in the future as he likes, and then take out as much or as little as he chooses, whenever he wants. An ORS, in short, is like a flexible bank account.

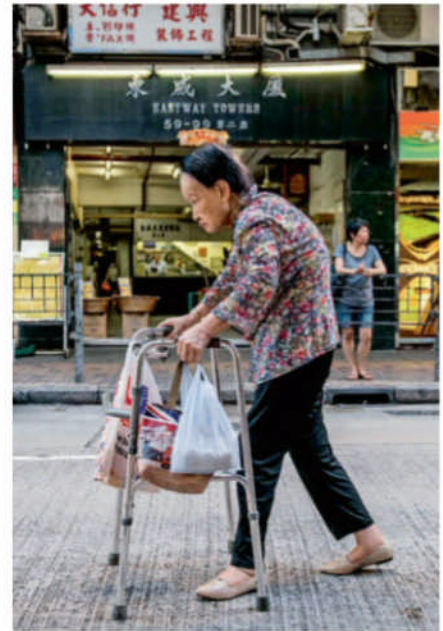
The arrangement falls outside the CRS and FATCA because the Hong Kong au-

thorities classify ORS as “low risk” from a tax-evasion standpoint, meaning those running them are “non-reporting financial institutions” under both standards. Not surprisingly, some financial firms are hawking them enthusiastically to foreigners. A brochure from Legacy Trust, a Hong Kong-based firm, presents the ORS as “arguably the most tax-efficient pension structure available to high net-worth individuals”. It also suggests that Hong Kong’s status as a respectable financial centre, not on any international tax blacklist, confers “legitimacy” on ORS. Legacy Trust did not respond to a request for comment.

Tax experts say private-banking circles are abuzz with talk of ORS, with hundreds of rich clients looking to move money into them as the date approaches for CRS compliance. “I’ve met people with \$50m, \$100m even, including from the Chinese mainland, looking to do this,” says one. “No one knows how much they’re shifting. It has to be a lot.” Asked whether Hong Kong’s tax authority is aware of this, he says: “It’s either acquiescence or ignorance on their part. Either way, not good.”

The Financial Services and Treasury Bureau, the Hong Kong government department responsible for international tax matters, says it has weighed the risks posed by the schemes and considers it “justifiable” to include their managers as non-reporting institutions. As of March 31st, there were 4,522 ORS registered. The pensions regulator declines to say whether the number has been growing.

The OECD, which administers the CRS, says it is aware of several supposedly kosher investment schemes that may be anything but, including ORS. It says it is in discussions with Hong Kong, though it will not be drawn on when the loophole might be closed. Earlier this month, the OECD launched a portal where whistle-blowers can anonymously report schemes designed to circumvent its tax-transparency standard; they can even upload docu-



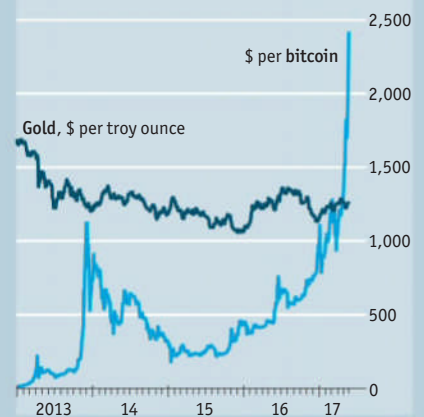
Not dodging but shuffling

ments, such as marketing materials. The OECD says products in its sights include pensions, insurance and citizenship-for-sale schemes, known euphemistically in the trade as “investment migration” products. Tips are already flowing in, it says.

But the biggest hole in the CRS is not a product, nor Hong Kong. It is America. It gets all the information it needs from other countries through its heavy-handed application of FATCA, and therefore sees no need to sign up to the CRS. So it is in the unique position of being able to take a lot, give little, and continue getting away with it. Not surprisingly, lots of tainted foreign cash is believed to have flowed into American banks, trusts and shell companies in recent years. Schemes such as ORS may provide tax-dodging opportunities for a while yet, but American non-participation is, as one OECD official puts it, “the elephant in the room”. ■

The bitcoin bubble

Fans of bitcoin, a crypto-currency, have long called it digital gold. Now this sounds like an insult: continuing its stellar rise, and adding more than 30% to its value in just a week, one bitcoin is worth more than \$2,600, over twice as much as an ounce of gold. As *The Economist* went to press all bitcoins in circulation were worth over \$43bn. A sum of \$1,000 invested in bitcoins in 2010 would now be worth nearly \$36m. Other crypto-currencies are also marching upward: together this week they were worth \$87bn. But if the history of gold is any guide, what goes up will come down—and then go up again.



Sources: Bitcoincharts; Thomson Reuters

Machine-learning in finance

Unshackled algorithms

More firms are experimenting with artificial intelligence

MACHINE-LEARNING is beginning to shake up finance. A subset of artificial intelligence (AI) that excels at finding patterns and making predictions, it used to be the preserve of technology firms. The financial industry has jumped on the bandwagon. To cite just a few examples, “heads of machine-learning” can be found at PwC, a consultancy and auditing firm, at JP Morgan Chase, a large bank, and at Man GLG, a hedge-fund manager. From 2019, anyone seeking to become a “chartered financial analyst”, a sought-after distinction in the industry, will need AI expertise to pass his exams.

Despite the scepticism of many, including, surprisingly, some “quant” hedge funds that specialise in algorithm-based trading, machine-learning is poised to have a big impact. Innovative fintech firms and a few nimble incumbents have started applying the technique to everything from fraud protection to finding new trading strategies—promising to up-end not just the humdrum drudgery of the back-office, but the more glamorous stuff up-front.

Machine-learning is already much used for tasks such as compliance, risk management and fraud prevention. Intelligent Voice, a British firm, sells its machine-learning-driven speech-transcription tool to large banks to monitor traders’ phone calls for signs of wrongdoing, such as insider trading. Other specialists, like Xcelerit or Kinetica, offer banks and investment firms near-real-time tracking of their risk exposures, allowing them to monitor their capital requirements at all times.

Machine-learning excels in spotting unusual patterns of transactions, which can indicate fraud. Firms ranging from startups such as Feedzai (for payments) or Shift Technology (for insurance) to behemoths such as IBM are offering such services. Some are developing the skills in-house. Monzo, a British banking startup, built a model quick enough to stop would-be fraudsters from completing a transaction, bringing the fraud rate on its pre-paid cards down from 0.85% in June 2016 to less than 0.1% by January 2017.

Natural-language processing, where AI-based systems are unleashed on text, is starting to have a big impact in document-heavy parts of finance. In June 2016 JPMorgan Chase deployed software that can sift through 12,000 commercial-loan contracts in seconds, compared with the 360,000 hours it used to take lawyers and loan officers to review the contracts.

Machine-learning is also good at automating financial decisions, whether assessing creditworthiness or eligibility for an insurance policy. Zest Finance has been in the business of automated credit-scoring since its founding in 2009. Earlier this year it rolled out a machine-learning underwriting tool to help lenders make credit decisions, even for people with little conventional credit-scoring information. It sifts through vast amounts of data, such as people’s payment history or how they interact with a lender’s website. Lemonade, a tech-savvy insurance startup, is using machine-learning both to sell insurance policies and to manage claims.

Perhaps the newest frontier for machine-learning is in trading, where it is used both to crunch market data and to select and trade portfolios of securities. The quantitative-investment strategies division at Goldman Sachs uses language processing driven by machine-learning to go through thousands of analysts’ reports on companies. It compiles an aggregate “sentiment score” based on the balance of positive to negative words. This score is then used to help pick stocks. Goldman has also invested in Kensho, a startup that uses machine-learning to predict how events like natural disasters will affect market prices, based on data on similar events.

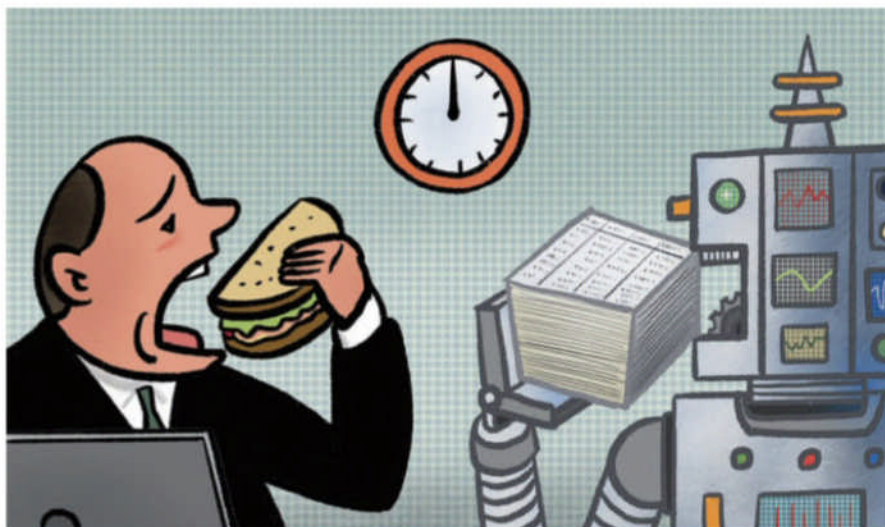
Quantifiable progress

Quant hedge funds, both new and old, are piling in. Castle Ridge Asset Management, a Toronto-based upstart, has achieved annual average returns of 32% since its founding in 2013. It uses a sophisticated machine-learning system, like those used to model evolutionary biology, to make investment decisions. It is so sensitive, claims the firm’s chief executive, Adrian de Valois-Franklin, that it picked up 24 acquisitions before they were even announced (because of telltale signals suggesting a small amount of insider trading). Man AHL, meanwhile, a well-established \$18.8bn quant fund provider, has been conducting research into machine-learning for trading purposes since 2009, and using it as one of the techniques to manage client money since 2014.

So it seems odd that some prominent quant funds are machine-learning sceptics. Martin Lueck of Aspect Capital finds the technique overrated, saying his firm has found only limited useful applications for it. David Siegel, co-founder of Two Sigma, a quant behemoth, and David Harding of Winton Capital, have also argued that the techniques are overhyped.

In other fields, however, machine-learning has game-changing potential. There is no reason to expect finance to be different. According to Jonathan Masci of Quantenstein, a machine-learning fund manager, years of work on rules-based approaches in computer vision—telling a computer how to recognise a nose, say—were swiftly eclipsed in 2012 by machine-learning processes that allowed computers to “learn” what a nose looked like from perusing millions of nasal pin-ups. Similarly, says Mr Masci, a machine-learning algorithm ought to beat conventional trading strategies based on rules set by humans.

The real vulnerability may in any case lie outside trading. Many quant funds depend on human researchers to sift through data and build algorithms. These posts could be replaced by better-performing machines. For all their professed scepticism, Two Sigma and its peers are busy recruiting machine-learning specialists. ■



Free exchange | Looking east

France can learn from the success of German reforms, but not duplicate them

IT IS heartening that the euro area has a knack for surviving near-fatal crises. Yet confidence in the durability of the single currency might be stronger if it suffered fewer of them. Europe dodged its latest bullet on May 7th in France, when Emmanuel Macron, a liberal-minded (by local standards) upstart centrist, defeated Marine Le Pen for the presidency. Even so, an avowed nationalist and Eurosceptic captured 34% of the vote, leaving Mr Macron with five years to assuage widespread frustration with the economic status quo. An obvious model lies just across the Rhine, where the unemployment rate—below 4%, down from over 11% in 2005—is testimony to the potential for swift, dramatic change. Yet Germany's performance will not be easy to duplicate.

It would be unfair to call France the sick man of Europe; half the continent is wheezing or limping. Yet there is certainly room for French improvement. Real output per person has barely risen in the past decade. Government spending stands at 57% of GDP, outstripping the tax take; France's budget deficit, at 3.4% of GDP, is among the largest in the euro area's core. The biggest worry, however, is the labour market. The unemployment rate, now 10.1%, is stubbornly high. Nearly a quarter of French young adults are unemployed. Worklessness, especially among young people, is a source of rising social tension and a corrosive force in French politics. Mr Macron must perform the German trick—from labour-market morass to miracle—in half the time it took Germany.

How did the Germans manage it? The popular narrative of the German turnaround begins with the “Hartz reforms”—named after Peter Hartz, who ran the commission that formulated them—enacted from 2003 to 2005. Germany's structural unemployment rate had risen steadily from the early 1970s. Each recession added workers to the jobless rolls who subsequently never left. The Hartz reforms overhauled job training and placement programmes and reduced barriers to part-time work. Most important, they transformed a wildly generous system of unemployment and welfare payments, which allowed some workers to collect indefinite benefits equivalent to about half their previous salary, into one which paid fixed amounts for a limited time. The reforms inspired intense opposition and, in 2005, cost Gerhard Schröder the chancellorship (it passed to one Angela Merkel). Yet the pain appears to have been worth it. German leaders are certainly not slow to evangelise about the benefits of reform.

Mr Macron, however, should be careful about mimicking German reforms too slavishly. The groundwork for Germany's mir-

acle was laid well before the Hartz reforms, in response to unique circumstances. German reunification in 1990 placed great fiscal strain on the economy. And the collapse of Soviet power gave Germany's eastern neighbours—economies with skilled but low-cost workforces and close historical relationships with Germany—better access to Western markets. Conditions seemed ideal for a swift industrial decline. That prospect spooked German workers into docility. Wage contracts became increasingly localised (helped by the absence of the national wage floors imposed in France) and strike action was rarer than in France or Italy. Union membership dropped; the share of workers covered by industry-level wage agreements fell from 75% in 1995 to 56% in 2008.

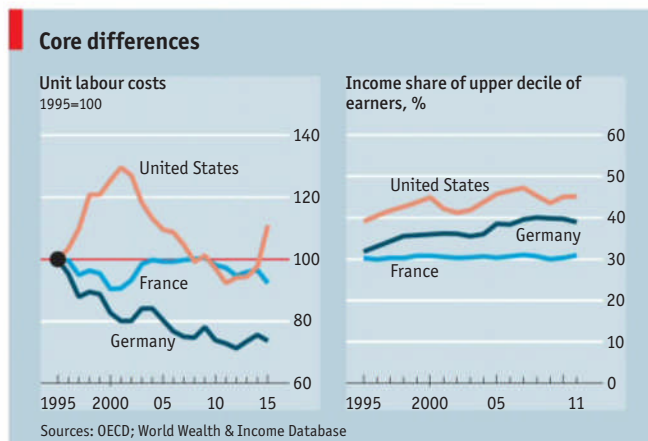
As a result, from the early 1990s labour costs for German firms fell sharply relative to those in other economies (see left-hand chart). Low labour costs reduced the incentive for firms to shift production abroad and boosted the competitiveness of German exports. (Flexibility also shielded the German labour market during the Great Recession, when a sharp fall in GDP barely affected the unemployment rate.) The same political economy that allowed lower German labour costs probably enabled the passage of the Hartz reforms. Yet it made its own, independent contribution to rising German employment.

The Macron environment

Nor can the global context be ignored. In the 2000s the world economy grew at an average annual pace of around 4%, despite the Great Recession. China, which bought much of the industrial equipment manufactured in Germany, grew especially rapidly. Booming global trade amplified the benefits to Germany of rising competitiveness. And German labour costs were falling while those of its European neighbours were flat or rising. Now, the global outlook for output and trade is far murkier. And much of the euro-area periphery is also trying to lower labour costs and boost competitiveness. The Hartz reforms certainly succeeded in pushing some workers back into the labour force and into work; one analysis suggests they reduced Germany's structural unemployment rate by 1.4 percentage points, for instance. But other shifts in the economy were just as critical to the German turnaround.

Moreover, change in Germany's labour market was not a story of improvement across the board. Growth in employment soared, but growth in total hours worked did not. To a great extent, Germany redistributed working hours rather than created new ones. Though wages for the better-paid climbed rapidly, especially in manufacturing, they fell for the lowest-paid. So income inequality in Germany, on some measures, has followed a remarkably American trajectory (see right-hand chart). Increased employment in France is a worthy goal; but to make it the sole priority may have unpleasant consequences for some.

The new president seems to understand that danger. Though the details of his programme have yet to be unveiled, they are likely to include reforms to French labour law and efforts to deepen French trade relations with Europe, in addition to more Hartz-like measures. But a successful French turnaround will necessarily look different from Germany's. If Mr Macron hews too closely to what the Germans believe to have been the secret of their success, France's disenfranchised may end up feeling even more alienated. If so, the euro zone may suffer another existential crisis, this time possibly terminal. ■





Aviation

The towers vanish

Remote centres using video are replacing airfield control towers

THE 67-metre-tall control tower that opened at San Francisco International Airport in October is a stylish structure that cost \$120m. It is supposed to resemble a beacon of the sort used in ancient times to guide ships safely to harbour. Those in the know might be forgiven for wondering if the new control tower is less a beacon than a white elephant. Elsewhere, airport managers are starting to abandon the panopticons that have dominated airfields for decades in favour of remote-controlled versions that promise to be cheaper and safer. Instead, they are housed in ordinary low-rise buildings, in some cases hundreds of kilometres away from the facility they are monitoring.

These remote control towers receive a live video feed from cameras positioned around an airfield. The images are stitched together by computer and displayed on screens (as pictured above) to create a virtual view of the runways and taxiways being monitored. In some cases the screens surround the air-traffic controllers, creating a 360° image. Separate screens can be used to display different airfields, because some remote towers will control flights in and out of a number of airports.

The first airport to deploy a virtual control tower was the one that serves Örnsköldsvik, in northern Sweden, which is used by about 80,000 passengers a year. In April 2015 the conventional tower at this airport was closed. The controllers moved

to a remote tower at Sundsvall, some 130km to the south, that had been built by LFV, Sweden's air-navigation agency, and Saab, a Swedish technology firm. Last year, this tower also began monitoring flights at its local airport, Sundsvall-Timra. Next year it will start looking after those at Linköping City Airport, in southern Sweden, too.

Cleared for landing

On the other side of the Scandinavian Mountains, Norway has even more ambitious plans than Sweden. Kongsberg, a local firm, and Indra, a Spanish one, are consolidating control of 15 small airports in the country's north into a remote tower at Bodo, just above the Arctic Circle. Many of Norway's airports serve isolated settlements and operate a handful of flights a day—hardly enough to justify a full-time tower service. The new centre is expected, eventually, to handle aircraft movements at 32 of the 45 airfields run by Avinor, Norway's state-owned airport operator.

Remote towers are planned in a number of other countries. In 2019 NATS, Britain's air-traffic management company, will replace the control tower at London City Airport with a remote service operating at NATS's air-traffic control centre 145km away. Saab, meanwhile, has been testing the idea in several places outside Sweden. One is Australia, where video from the airport at Alice Springs, in the middle of the country, has been transmitted to air-traffic

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controllers in Adelaide, 1,500km away on the south coast.

Nor will remote towers be restricted to small airports. Searidge Technologies, a Canadian company, has done trials at far larger ones in Budapest and Milan. Some big airports are expected to experiment with remote towers as back-ups to their existing towers before making the switch. Indra recently tested a virtual “contingency” control tower for use in emergencies at Girona Airport, which serves Costa Brava, one of Spain's top holiday destinations.

Sometimes, remote towers will not serve as replacements for ones on site. Rather, they will be the first “tower” the airport in question has ever seen. Such is the case for Leesburg airport in Virginia, just outside Washington, D.C., which looks likely to be the first airport in America to get a remote control tower. At non-controlled airports like Leesburg (which is used mainly by executive jets), pilots are responsible for take-offs and landings. They do this by flying established patterns on approach, communicating their intentions on a common radio frequency—and keeping their eyes peeled. A remote control tower of the sort Leesburg is testing should relieve pilots of those burdens.

Chocks away!

Efficiency and safety are the driving forces behind the use of remote towers. They offer the prospect of substantial savings as airports no longer need to build and maintain expensive tall structures. Operating costs should also fall, if air-traffic controllers are shared between a number of airports. Such savings should particularly help little-used airfields, which would pay for control-tower services only when needed. In Norway's case, the overall cost of air-traffic services at the airports involved is expected fall by 30-40%. That ►►

ought, in turn, to mean lower fees for airlines and—less certain, this—cheaper fares for passengers.

Safety should improve, as well. At night or in bad weather, on-the-spot controllers may not be able to see much of the airport, even from their lofty vantage point. Remote towers can provide a greatly enhanced view, says Gonzalo Gavín, Indra's European programme director, because they rely on a variety of cameras.

Some of these cameras capture a panoramic scene. Others are distributed on poles around the airfield (and are thus able to look into what would otherwise be blind spots). Some can be panned and zoomed—the digital equivalent of a controller reaching for a pair of binoculars. And exotica such as infrared cameras can capture images created by temperature differences, so could detect, for instance, an animal straying onto a runway at night.

Other sensors can be used, too, including laser rangefinders that measure accurately how far an approaching aircraft is from the runway. Images and additional information can be superimposed on the screens, and sound can be piped in as well. As in physical towers, controllers will continue to have radar screens and radios to communicate with pilots.

Nervous flyers will, no doubt, worry about a systems failure. To guard against this, remote towers have high levels of redundancy, with backup equipment such as dual power supplies and additional pathways for data networks. In case of a radio breakdown, controllers in a physical tower communicate with pilots using red, green and white flashes from a signal gun. The digital equivalent duplicates this by remotely controlling signal guns placed on the airfield's camera poles.

No system, however robustly designed, is completely secure. Physical control towers can suffer failures, too. With a network of remote towers, it might be possible for another to take over. But if the lights really did go out, a number of fall-back measures would be implemented: take-offs would be halted, controllers would divert flights to other airports and call for a greater separation between aircraft, a number of which might still land using the procedures for airports without control towers.

Some air-traffic controllers are more concerned that having to look after several airports from a single remote tower could prove difficult in “human performance terms” (ie, trying to concentrate on what is happening at more than one location). At first, the extra airports added to a remote tower are likely to be lightly used ones, so that experience can be gained. But the flight path seems set. Along with the engineer in the cockpit, smoking in the cabin, courteous attendants and plenty of legroom, the control tower looks like becoming a relic of aviation's past. ■

Sexual competition

Careful where you put that thing

For beetles, the battle between the sexes drags down the entire species

ANTAGONISM is built into the nature of asexual reproduction itself. Members of each sex try to maximise their own reproductive fitness, which is a combination of the quality and the quantity of offspring they are able to raise to the point where those offspring can themselves reproduce. If conflict between males and females is part and parcel of reproduction, some still have it much tougher than others. Spare a thought, in particular, for the females of the cowpea seed beetle.

Males of this species have penises armed with sharp spikes. These can do serious damage to a female's reproductive tract. And all in the name of male procreative success, for previous research has shown (though the precise mechanism remains obscure) that male cowpea seed beetles with longer penile spines have greater mating success than those with short ones.

Evolutionary theory predicts that it would be in the interests of females to fight back, by evolving countermeasures. And they seem to have done so, by evolving thicker tract sheaths. But the details have not been studied until now. That has just been corrected by Liam Dougherty of the University of Western Australia and his colleagues. Their paper, published in the *Proceedings of the Royal Society*, looked at 13 populations of cowpea seed beetles from around the world and showed how reproductive-tract-thickness and two other defensive measures varied with the size of the local males' armaments. It also showed that the cowpea seed beetle's spiked penises, and the females' responses to them (or, rather, the stretches of DNA

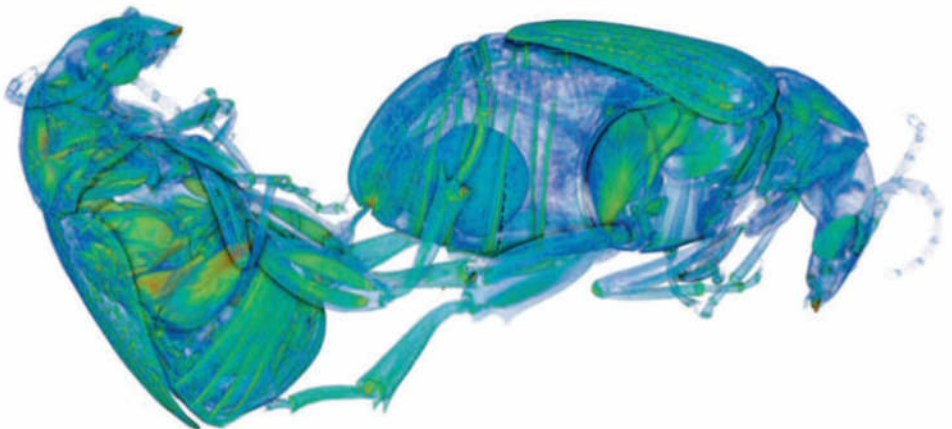
that underlie these phenomena), are an excellent example of what Richard Dawkins, an evolutionary biologist, called “selfish genes”. For while such traits are good for the individual beetles that carry them, they appear to be bad for the health of the species as a whole.

Cowpea seed beetles are widely studied animals because they are important pests of stored pulses. They are found on every continent except Antarctica (Dr Dougherty's experimental subjects were derived from Africa, Asia and North and South America), and are believed to have been spread around the world from their west African home by human travellers and traders. Hence, any differences between local populations must be the result of recent evolution.

Dr Dougherty and his colleagues first used a technique called micro-CT x-ray scanning, a miniaturised version of medical body-scanning, to measure the thickness of the reproductive tracts of females from each of the populations under study. They also measured the levels in a beetle's haemolymph (a fluid that performs in insects a similar function to that performed in mammals by blood) of an enzyme called phenoloxidase, which helps repair wounds. And, as a third measure of self-protection, they measured female haemolymph's microbicidal potency by watching its effect on bacteria in a Petri dish.

For the males, the team measured the length of both the ventral and the dorsal spikes of the penis, and also the amount of damage, measured as scar tissue a day after intercourse, that males of a particular population inflicted on the reproductive tracts of females. (They used this as a proxy for the forcefulness of a male's advances.) They then looked for correlations between male offensive measures and female defensive ones.

They attacked the data with two different statistical techniques, looking for correlations between the males' characteristics and the female ones. Both types of statistics indicated that the correlations were ▶▶



Evolution in action

► strong. Only in the case of ventral penile spines did they fail to suggest that it was the size of the male traits which was responsible for driving the evolution of the size of the female ones.

On top of all this, Dr Dougherty and his team also found that the populations with the most highly developed female defences were those that had shown the lowest population-growth rates in a previous experiment. Since the beetles had been supplied with abundant food, the presumption had been that the growth rates then observed were governed by female fecundity. In light of the latest results, that suggests females in those populations were diverting scarce physiological resources from producing eggs to defending themselves against male sexual aggression—and thus slowing the growth of the population as a whole. ■

Fingerprints for paper

Shining a light

Every sheet of paper has its own unique fingerprint

A PIECE of paper is a complicated product. Trees are felled, stripped of their bark, chipped, mashed, and then mixed with water and churned into pulp. That pulp is washed and refined, before being beaten to a finer slush. Laid out flat, drained of water, then squeezed between large rollers, the slush at last becomes one large, long sheet of paper.

All those machinations introduce a great deal of randomness to the arrangement of fibres within an individual piece of paper. In an article due to be published in *Transactions on Privacy and Security*, Ehsan Toreini, a security expert at the University of Newcastle, and his colleagues, describe a way to turn that randomness into a “fingerprint” that is unique to any given sheet of paper. (In security jargon a fingerprint is any unique, identifying pattern, not just one from a finger). That could, they hope, help to cut down on fraud.

The researchers are not the first to realise that paper might be fingerprintable. In 2005 a team from Imperial College London used a laser to scan the surface of a sheet of paper from four different angles, using the intensity of the reflected light as proxy for surface structure. In 2009 scientists at Princeton University used an off-the-shelf scanner to construct a unique, three-dimensional model of the surface.

Dr Toreini’s technique starts by shining a light through a piece of paper from the back. A carefully-measured box is printed on the backlit paper, to ensure it can be

Synthetic biology

Lights, bacteria, action

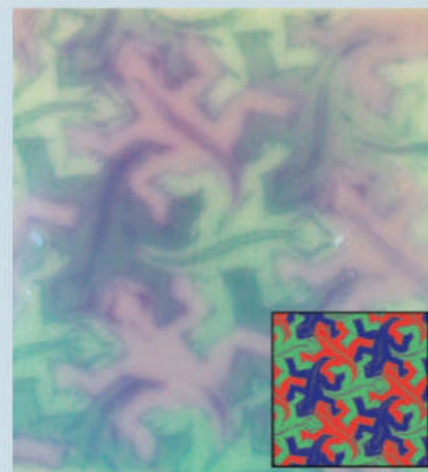
A new way to control genetically engineered cells

THE central idea of synthetic biology is that living cells can be programmed in the same way that computers can, in order to make them do things and produce compounds that their natural counterparts do not. As with computers, though, scientists need a way to control their creations. To date, that has been done with chemical signals. In a paper published in *Nature Chemical Biology*, Christopher Voigt, a biologist at the Massachusetts Institute of Technology, describes an alternative. Instead of chemicals, he and his colleagues demonstrate how to control customised cells with coloured light.

Engineering cells to respond to light is not a new idea. The general approach is called optogenetics, and it has become a popular technique for controlling nerve cells in neuroscience. But Dr Voigt is not interested in nerve cells. In 2005 he altered four genes in a strain of *Escherichia coli* bacteria, which gave the creatures the ability to respond to light and darkness by becoming lighter or darker in colour themselves. The state of the art has advanced since then. This time Dr Voigt wanted to see if he could give his bacterial charges—which normally live in the human gut, and therefore rarely see light of any sort—the ability to sense colour.

That meant tinkering with 18 different genes containing more than 46,000 base pairs of DNA. These changes persuaded the cells to build three different kinds of light sensors that are similar in structure to the photoreceptors found in plants and algae. These sensors allow their owners to track things like the time of day and the seasons, and to plan their reproduction accordingly. One sensor, for instance, harvested from a type of algae, switches on when struck by light with a wavelength of 535 nanometres (which humans would perceive as green) and then off again when exposed to light of a longer, redder wavelength. Other sensors responded to light at the blue and red ends of the visible spectrum.

aligned properly. Instead of lasers or scanners, a picture is taken with an ordinary digital camera. The next step is to apply a processing tool called a Gabor filter to the resulting image, which analyses how frequently certain patterns appear and where, spitting out two long numbers that are a mathematical description of the paper’s texture. It is these numbers that serve as the fingerprint.



M.C. Escherichia

Those photoreceptors, in turn, control the expression of certain bacterial genes. For demonstration purposes, Dr Voigt’s prototype *E. coli* have been designed to produce enzymes that cause the bacteria to become the same colour as the light being shone upon them. So, if a plate of the bacteria is struck by a beam of green light, the plate becomes green. If a plate has an image composed of red, green and blue projected upon it, the plate will reproduce the projection (see picture).

Such artistry is the tip of the iceberg: the light sensors could be used to control genes that make all sorts of different chemicals. Scientists have toyed with the idea of using vats of genetically altered bacteria to produce things like artificial sweeteners or drugs. But getting the chemistry right requires that the bugs execute several chemical reactions in exactly the right sequence. Doing that with chemicals is expensive, and fiddly, since the chemicals take time to circulate around the vat. Dr Voigt imagines instead vats fitted with coloured lights that wink on and off in sequence. It would look, he jokes, a bit like a bacterial disco. Such single-celled revellers could yet be the future of chemical manufacturing.

Using an ordinary digital camera keeps things simple, and therefore quick and cheap. Both the Princeton and Imperial methods require scanning a sheet of paper several times; the new technique requires only a single image and can be done in just over a second.

At the same time, by backlighting the paper, the researchers can take their picture through the entire depth of the paper, ►►

▶ rather than just relying on the patterns on its surface. Capturing that extra information gives a more detailed description of the paper's structure, and makes the technique much harder to fool. A determined fraudster might be able to rearrange the pattern of fibres on a piece of paper's surface. Doing it through the whole sheet is much trickier. For the same reason, the technique is much more resistant to the sort of day-to-day wear and tear that could alter the paper's surface.

Fingerprinting paper is just one example of a more general trend of using the randomness inherent in manufacturing to generate unique identifiers for individual objects. Intrinsic ID, a Dutch firm, uses an analogous process for silicon memory chips. Slight and unavoidable variations in the tiny circuits inside such chips means that running electricity through one can generate a unique fingerprint in essentially the same way that light does for paper. The firm's technology is already used in American bank cards.

The biggest advantage of such techniques is there is no need to bolt complicated security features on top of existing products. More than 100 countries issue passports containing radio-frequency identification chips, for instance. Dr Toreini's technique could keep passports secure with a lot less fuss. ■

High-tech weaponry

Follow the leader

In future, flocks of dumb weapons could take orders from a smart one

ON APRIL 7th a salvo of missiles fired by American warships in the Mediterranean scored direct hits on several Syrian aircraft shelters from hundreds of miles away, demonstrating once more the effectiveness of precision, or "smart", weapons. At \$1.3m apiece such missiles are usually reserved for important targets like parked aircraft. They are too pricey to be expended on lightly armed insurgents. (As George Bush junior once memorably put it, he was not prepared to "fire a \$2m missile at a \$10 empty tent and hit a camel in the butt".)

Frank Fresconi, who works at the Army Research Laboratory's Aeromechanics and Flight Control Group, in Maryland, hopes to change that. He is working on something called the Collaborative Cooperative Engagement (CCOE) programme, which hopes to provide the advantages of smart weapons at a fraction of the cost. A new generation of cut-price precision munitions could change the way America's army wages war, for despite being the

world's most technologically advanced and generously funded force, it still employs a great deal of cheap, dumb, unguided weapons.

The idea is to link an individual smart munition with a flock of dumber, cheaper companions. The smart round uses its sophisticated sensors to find targets, and passes data to its less able comrades. The smart weapon handles all of the tricky navigation and target identification; its companions just have to work out where they are in relation to their master, and then go where they are told. Data are passed between them in brief radio chirps.

Dr Fresconi is not making a specific missile. Rather, he and his team are developing the electronic building blocks needed to assemble a wide range of different weapons. The results might be fired from a mortar, from a cannon, from a rocket launcher mounted on a lorry, or from the sort of weapon an individual soldier might carry. In each case, a shell or rocket would release a swarm of submunitions. Under the guidance of the master weapon, these might disperse to attack individual enemy foxholes, or work together to hit a single target like a tank or a bunker simultaneously.

Precision guidance brings advantages besides a higher hit rate. There is less risk of accidentally killing innocent bystanders. No ammunition is wasted blowing up things that are not the target. By eliminating waste, Dr Fresconi reckons that a smart artillery round might get away with using a warhead one tenth the size of an unguided one for the same destructive effect.

The biggest challenge is navigation. Many existing smart weapons use GPS, which relies on signals from satellites that may be jammed by a sophisticated opponent. Others use laser guidance, which demands a soldier be close enough to the target that he can highlight it with a laser designator. The new architecture will avoid both those drawbacks by using optical techniques: guiding itself by spotting landmarks, and recognising targets visually. Dr Fresconi says the inspiration for the optical sensors came from the commercial world, where facial-recognition systems are used by everyone from Facebook to shops, policemen and airports.

The trick is to pack the necessary hardware into a few cubic centimetres, and to deal with the high speeds at which shells and missiles travel. Rather than having several seconds to scan their targets at leisure, as airport systems do, missiles will need to scan, recognise and act in milliseconds. And once the targets have been found, the weapons will need to be able to turn sharply at high speed. To do that, the team is fitting them with fins that deploy after launch, and pondering using sideways-facing rockets to give them even more agility.

All this wizardry must work not only when a munition has been "soft

launched"—dropped from a helicopter or a drone, in other words—but also when it has been fired out of a cannon or launched by a rocket. That will subject the electronics to extremely high g-forces, as they are accelerated to several times the speed of sound in milliseconds, or spun at thousands of revolutions per second when fired from rifled artillery barrels.

In recent tests a flock of multiple projectiles successfully navigated together. However, full realisation of the technology will take at least a decade to mature. The plan is to start big and scale down. CCOE will roll out gradually, says Dr Fresconi, with successive generations getting smarter and fitting into ever-smaller weapons.

As those weapons reach the battlefield, they will enable the use of new tactics. The manoeuvring munitions can carry out what the Army calls counter-defilade fire—hitting a sniper hiding behind a wall, for example, or troops concealed in trenches. Dr Fresconi also talks about "hyper precision" and being able to home in on a target's weakest spot, or striking simultaneously at a precise point for maximum effect. And the munitions will afford a new capability for engaging dispersed targets. These might be enemy foot soldiers scattered over a wide area—or, in future, a swarm of hostile incoming drones. One missile full of Collaborative Cooperative munitions might hit the lot.

Finally, the new development could signal the end of indiscriminate artillery fire. By replacing dumb shells with smart ones, a barrage landing on a town would be more likely to hit only military targets, while—so the researchers hope—leaving civilians unharmed. ■



A million dollars up in smoke



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Information technology

Truth, all the truth—and statistics

Big Data is remodelling social science just as the microscope transformed medicine

TO MANY people Big Data is less shiny than it was a year ago. After Hillary Clinton's defeat at the hands of Donald Trump, her vaunted analytics team took much of the blame for failing to spot warnings in the midwestern states that cost her the presidency. But according to research by Seth Stephens-Davidowitz, a former data scientist at Google, Mrs Clinton's real mistake was not to rely too much on new-fangled statistics, but rather too little.

Mrs Clinton used the finest number-crunchers. But their calculations still relied largely on traditional sources, such as voter files and polls. In contrast, Mr Stephens-Davidowitz turned to a novel form of data: Google searches. In particular, he counted the frequency of queries for the word "nigger", America's most toxic racial slur. Contrary to the popular perception that overt racism is limited to the South, the numbers showed comparatively high interest in the term across the Midwest and the rustbelt relative to the rest of the country. In the Republican primaries in 2016 that variable outperformed all others in predicting which geographic areas would support Mr Trump over his intraparty rivals. Had Mrs Clinton's team made better use of such information, they might have concluded, before it was too late, that the foundations of her "blue firewall" were cracking.

This is just one of the striking findings in "Everybody Lies", a whirlwind tour of the modern human psyche using search data

Everybody Lies: Big Data, New Data, and What the Internet Can Tell Us About Who We Really Are. By Seth Stephens-Davidowitz. *Dey Street*; 288 pages; \$27.99. *To be published in Britain by Bloomsbury in July; £20*

as its guide. Some of the book's discoveries reaffirm conventional wisdom, like the concentration of queries about do-it-yourself abortions and about men who are confused about their sexual orientation in America's socially conservative South. Some turn it on its head: although rags-to-riches narratives are widespread in basketball, the data show that growing up in poverty actually reduces a boy's chances of making the National Basketball Association—perhaps because poor children are less likely to grow tall enough to play in it. Some results are both disturbing and perplexing, such as the prevalence of searches on pornographic sites for videos depicting sexual violence against women, and the fact that women themselves seek out these scenes at least twice as often as men do. Other results are just weird: why are adult men in India so eager to have their wives breastfeed them?

The empirical findings in "Everybody Lies" are so intriguing that the book would be a page-turner even if it were structured as a mere laundry list. But Mr Stephens-Davidowitz also puts forward a deft argu-

ment: the web will revolutionise social science just as the microscope and telescope transformed the natural sciences.

Modern microeconomics, sociology, political science and quantitative psychology all depend to a large extent on surveys of at most a few thousand respondents. In contrast, he says, there are "four unique powers of Big Data": it provides new sources of information, such as pornographic searches; it captures what people actually do or think, rather than what they choose to tell pollsters; it enables researchers to home in on and compare demographic or geographic subsets; and it allows for speedy randomised controlled trials that demonstrate not just correlation but causality. As a result, he predicts, "the days of academics devoting months to recruiting a small number of undergraduates to perform a single test will come to an end." In their place, "the social and behavioural sciences are most definitely going to scale," and the conclusions researchers will be able to reach are "the stuff of science, not pseudoscience".

Mr Stephens-Davidowitz is not just any knee-jerk cheerleader for the Big Data revolution. He devotes ample space both to the ways that quantitative findings can lead decision-makers astray, and to the risk that the nearly omniscient owners of such data sets may find ways to abuse them. If liking motorcycles turns out to predict a lower IQ, he asks, should employers be allowed to reject job applicants who admit to liking motorcycles? As a result, he calls for extreme caution in extending the use of Big Data from large groups of people to making decisions about individuals. On the whole, however, the author is an optimist. As a result of improvements in information technology, he writes, humans will "be able to learn a lot more" about themselves "in a lot less time". ■

The future of globalisation

Negative reaction

Grave New World: The End of Globalisation, the Return of History. By Stephen King. Yale University Press; 290 pages; \$30 and £20

GLOBALISATION is not new. In the late 19th century capital moved freely across the world and goods crossed national borders (despite tariffs) with the help of cheap transport. People, too, migrated across the oceans on a proportionately far bigger scale than they do today. All that came to a dramatic end with the outbreak of the first world war.

Trade did not recover its share of world GDP until the 1960s. But after the Berlin Wall fell in 1989, it became tempting to believe in a kind of “Whig theory of globalisation” with economies growing ever more linked thanks to the internet and the spread of liberal capitalism. Perhaps the world is due for another change of trend. That is the view of Stephen King, an economist at HSBC, which, as it happens, is one of the most global of banks.

In “Grave New World” Mr King argues that economic progress that reaches beyond borders is not “an inescapable truth”. Technology may have boosted globalisation until now, but it may not do so in future. Companies may decide to replace cheap labour in the developing world with robots at home, causing global supply chains to collapse. The internet has also increased inequality within economies, as skilled workers have reaped the most benefits, creating a division between the “haves” and the “have nots”.

A resurgence in migration has also caused a political backlash, on both economic and cultural grounds. Populist politicians have gained voters, and even power in some countries. And there may be even greater migrant flows to come, as Afri-

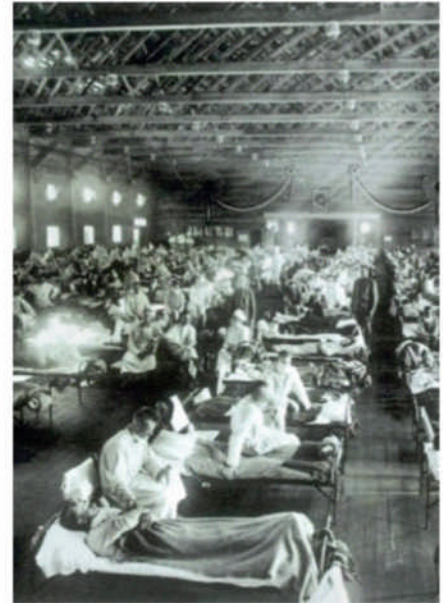
ca’s population grows and its citizens seek to escape from failed states, or the consequences of climate change, and to enhance their economic opportunities. The developed world may place more restrictions on inflows, as America did in the early 20th century, barring both Asians and those who could not pass a literacy test.

Geopolitical shifts will also make a difference. After 1945, America was globalisation’s leading architect and its main sponsor. But its authority is now being challenged on a number of fronts. China is asserting itself in the Pacific; Russia is doing so in eastern Europe and the Middle East. Western Europe no longer backs America on all issues and takes a sharply different view from Donald Trump on climate change. The election of Mr Trump proves that domestic voters have wearied of the country’s global responsibilities and want to put “America first”.

The result, says Mr King, is that “co-operative arrangements between nation states will be increasingly hard to come by. Conflict—at least in the economic sphere—will become ever more frequent.” The cancellation by Mr Trump of the Trans-Pacific Partnership (a trade agreement with Asia) and the failure to agree on the Doha round of global tariff reductions are cases in point. National governments are turning their backs on global institutions and focusing on their domestic interests.

So what is the answer? The irony is that likely solutions require international co-operation, the very thing that populism makes more difficult. Mr King looks at ideas such as breaking up the euro, a global organisation to reconcile capital flows between countries or even a borderless world and concludes they either will be insufficient or are unlikely to happen.

The author ends with a mock campaign speech from a Ms Trump in 2044, which looks back at the collapse of the EU and America’s withdrawal from NATO. For an optimistic economist, it is a surprisingly bleak way to end a well-written and thought-provoking book. ■



Disease in history

One hundred million dead

Pale Rider: The Spanish Flu of 1918 and How it Changed the World. By Laura

Spinney. Jonathan Cape; 282 pages; £20. To be published in America by PublicAffairs in September; \$28

BY EARLY 1920, nearly two years after the end of the first world war and the first outbreak of Spanish flu, the disease had killed as many as 100m people—more than both world wars combined. Yet few would name it as the biggest disaster of the 20th century. Some call it the “forgotten flu”. Almost a century on, “Pale Rider”, a scientific and historic account of Spanish flu, addresses this collective amnesia.

Influenza, like all viruses, is a parasite. Laura Spinney traces its long shadow over human history; records are patchy and uncertain, but Hippocrates’s “Cough of Perinthus” in 412BC may be its first written description. Influenza-shaped footprints can be traced down the centuries: the epidemic that struck during Rome’s siege of Syracuse in 212BC; the *febris italica* that plagued Charlemagne’s troops in the ninth century. The word “influenza” started being used towards the end of the Middle Ages from the Italian for “influence”—the influence of the stars. That was the state of knowledge then; in some ways at the start of the 20th century it was little better.

Ms Spinney, an occasional contributor to *The Economist*, recreates the world that Spanish flu came into. At the beginning of the 20th century science was on the rise. Scientists had switched miasma theory of disease for germ theory: they understood



America’s helping hands

▶ that many diseases were caused not by “bad airs”, but by microscopic organisms like bacteria. This led to improvements in hygiene and sanitation, as well as the development of vaccines. But viruses were almost unknown. The magnification of optical microscopes was too weak to show them up. People could spot bacteria, but not viruses, which are smaller than the wavelength of visible light. Until the electron microscope was invented in the 1930s, influenza was, like the Higgs boson before 2012, a theoretical entity: its existence was deduced from its effects. In the face of such uncertainty, public faith in medicine wa-

vered. People reverted to superstition: sugar lumps soaked in kerosene, and aromatic fires to clear “miasmas”.

Even so, Spanish flu was exceptionally deadly—about 25 times more so than seasonal flu. No one fully understands why. Ms Spinney ties the virulence of Spanish flu to its genetic irregularities and does a good job of explaining containment strategies through epidemiology. She draws on contemporary research, too, including the recent controversy about recreating the strain responsible for the pandemic. Ms Spinney is sanguine about the risks of such experiments: influenza appears to have all

the ingredients for another catastrophic pandemic and scientists, using caution, should probably do all they can to learn more about it.

Perhaps the most valuable aspect of this book, though, is its global perspective, tracing the course of the disease in Brazil, India, South Africa and Australia, among other places. In Europe and North America the first world war killed more than Spanish flu; everywhere else the reverse is true. Yet most narratives focus on the West, and only partly because that is where the best records are. Ms Spinney’s book goes some way to redress the balance. ■

Johnson | Translators’ blues

A pleasingly intellectual profession is under enormous pressure

TRANSLATION can be lonely work, which may well be why most translators choose the career out of interest, not because they crave attention. Until recently, a decent translator could expect a steady, tidy living, too. But the industry is undergoing a wrenching change that will make life hard for the timid.

Most translators are freelancers, and with the rise of the internet a good translator could live in Kentucky and work for Swiss banks. But going online has resulted in fierce global competition that has put enormous downward pressure on prices. Translators can either hustle hard for more or better-paid work—which means spending less time translating—or choose an agency that fights for the work for them, but which also takes a cut.

The alternative to schmoozing oneself or working with an agency is to market one’s skills in online marketplaces. But these display the most relentless price pressure of all: fees as low as \$13-15 per 1,000 words translated are not unknown. Traditionally, something more like \$50 has been the low end, with literary translation at around \$120, and high-end work at \$250. Buyers who know little about foreign languages and quality will, in online markets, shop almost purely on price.

To these pressures comes another: the rise in higher-quality machine translation. Just a year ago, machine translation still produced reliably rocky results: both inaccurate as to content, and often unreadable too. Both have improved dramatically with translation engines based on so-called deep neural networks. Those who offer rock-bottom prices for translation are almost certainly using translation software, and then giving it a quick edit for accuracy and readability. By and large, the big translation agencies are excited about technology and the possibilities of

scale it offers them. What worries the translators themselves, though, is that the future may lie in nothing more intellectually pleasing than this kind of clean-up.

Like all incumbents, those affected are not happy. To avoid being “the coffee-bean pickers of the future”, one veteran counsels improving specialist knowledge and writing skills to get high-end work. But not all can do that. Translators in the bulk and middle markets will inevitably be doing more editing, or will be squeezed out,

What will the rest be doing? For one, literary translation is under no threat. Sales of translated fiction rose by more than 600% in Britain between 2001 and 2015, and have been growing strongly in America too, with big authors like Elena Ferrante conditioning readers in those countries to look beyond their borders for good books. Nobody thinks a novel can be translated by a machine. In Roy Jacobsen’s “Unseen”, which is on the shortlist for the 2017 Man

Booker International Prize (MBIP), the original dialectal island Norwegian has been deftly rendered by Don Bartlett and Don Shaw into a kind of English that carries the same flavour: “Hvur bitty it is!” (“How small it is!”). The MBIP recognises that translation is, in effect, a kind of writing by sharing the prize money equally between author and translators.

Most work is in commercial translation, but that is a kind of writing too. Executives sometimes reject a translation of a speech or a letter because it doesn’t look enough like their original. But a good translator needs to rethink a text, rewording important pieces, breaking up or merging sentences, and so on. Translation software can be accurate, but it translates sentence-by-sentence. Since languages have different rhythms and different expectations for what counts as a good sentence, that approach can result in a mess. So it is often best simply to rewrite after thinking about the intended meaning.

Another market is “transcreation”, in which a translator—often in advertising—is expected to rethink a message, making sure that the version in the new language has the right cultural references, jokes and suchlike to recreate the impact, without the wording, of the original. In this case, the “transcreator” is even more of a writer than most translators.

Translation is hardly alone in being shaken up by technology. The legal industry, accounting and many other venerable professions are seeing repeatable knowledge work done passably by machines. The translators of the future need not only language and writing skills. They must, like the partners at a law or accounting firm, gain clients’ trust and learn their minds in order to do truly good work. The loners of the field, in other words, may find it hard going.



Fiction

A gleam in the darkness

A Boy in Winter. By Rachel Seiffert. *Virago*; 237 pages; £14.99. To be published in America by Pantheon in August; \$25.95

HALFWAY through Rachel Seiffert's new novel, when the ss death squad starts shooting, most readers will shudder. They all know, they think, what is coming: not just a gruesome depiction of the Nazis' murderous campaign against European Jews, but the Holocaust narrative itself, by now a well-stocked shelf. It is a mark of Ms Seiffert's gifts that her slender tale, "A Boy in Winter", upends these expectations.

Here, Ms Seiffert, a British writer of German-Australian origins, returns to the subject of "The Dark Room", her bestselling first book. As before, she focuses on the small and particular to evoke this largest of historical crimes.

In November 1941 a Ukrainian town is the site of both a brutal roundup of the Jewish population and the building of a highway for the 1,000-year Reich. The attack and its aftermath are described by a tight cast: the Jewish parents whose sons escape; Yasia, the Ukrainian farmgirl who hides them; her boyfriend Mykola, a Red Army deserter pressed into German service; and Pohl, a conscience-stricken German engineer overseeing construction of the road.

From the first scene the story is a close study of moral choice, immersed in its equally intense setting: wet, cold, early winter in the inhospitable eastern swampland. When Yasia runs into the two young escapees, Yankel and Momik, she faces the most fundamental of human dilemmas: whether to risk herself to protect the young and vulnerable. Pohl, an engineer, too must choose. But the author wisely avoids the cliché of the "good German" in this novel of subtle surprises.

Ms Seiffert's prose is not showy, but graceful and precise. The misery of the dank streets is relieved by flashes of light and humanity: a bunch of sweet apples, Pohl's letters to his wife, the hand-carved figures Momik plays with. Pohl's highway, completed, "stretches ever onwards, as though unending, meeting the rise of the land—perhaps even the curve of the Earth".

Most literature of the "third generation" after the war explores the impact on its descendants. Ms Seiffert's fictions are different: they inhabit the events themselves. Yet from all too familiar horror they swerve into the unexpected, into a new story—a gleam in the darkness that readers haven't seen before. ■



Television

The next chapter on the screen

After 26 years, "Twin Peaks" is back

IT HAS been over a quarter of a century since the twisted world of "Twin Peaks" was first seen. Part surrealist murder mystery, part small-town soap opera, there had never been anything like it on network television. With a languid pace and meandering plotline, it was challenging viewing that was thought not to appeal to audiences back then. Yet it was one of the most popular series of 1990.

In the years since, shows from "The X-Files" and "True Detective" to "Stranger Things" have tipped a cap to "Twin Peaks" both for daring and vision. So expectations for the third season of "Twin Peaks", which began on Showtime on May 21st, have been high. The show's creators, David Lynch and Mark Frost, are back, and so is much of the original cast. The second season ended with a cliffhanger, as Laura Palmer, the murdered prom queen played by Sheryl Lee, told Dale Cooper, an FBI agent, (Kyle MacLachlan, pictured): "I'll see you again in 25 years." That same scene opens the new drama, but otherwise the world of "Twin Peaks" has moved on. The first iteration revolved around the mystery of who killed Laura. Now the drama rests on whether Cooper, trapped in the Red Room, can break free.

The structure and range of the new "Twin Peaks" is more ambitious. Set in various American cities and in the town of Twin Peaks on the Pacific north-west coast, the action unspools across multiple narratives. In New York a young man has been hired by an anonymous billionaire to watch a spooky glass box, to "see if anything appears". When a librarian is mur-

dered in South Dakota, police find her dismembered head has been placed onto a man's marbled and bloated corpse. Meanwhile, in Twin Peaks, the Log Lady calls Deputy Chief Hawk with an urgent message: he must find something that is missing. In the netherworld that is the Red Room Cooper has an encounter with a talking tree. It is not at all clear how these unconnected scenes fit together.

With a roster of more than 200 characters, audiences are likely to find "Twin Peaks" bewildering at first. Familiar themes soon surface, however. Mr Lynch is fascinated by the duality of human nature. People, he thinks, have a light and a dark side, a calm exterior masking a murky inner world. Agent Cooper, a coffee-loving Eagle Scout, has been replaced by a murderous doppelganger in a leather jacket with long, lank hair reminiscent of Bob, Laura's killer. Twin Peaks is a town imbued with a neighbourly American wholesomeness, yet teenagers go missing and evil spirits lurk in the woods close by.

When it first aired, in 1990, "Twin Peaks" gained a whopping "33 share", meaning that a third of American televisions then on were tuned in to the show. When it was cancelled a year later, its share had fallen to 9%—viewers dropped off when executives at ABC, the network, insisted that the identity of the killer should be revealed. For the revival, Mr Lynch hopes to avoid such concessions. He directs all 18 episodes, which bodes well for those who enjoy his dark, idiosyncratic ideas. It may not be easy viewing, but "Twin Peaks" remains one of boldest experiments on television. ■



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PUBLIC CALL FOR BIDS - EXTRACT

With a view to awarding, on the basis of a competitive comparison, three professional positions to act as members of the Investment Committee of the Financial Instruments Section for risk capital ("FARE Venture") of the FARE Lazio Fund of Funds. In order to promote innovation in the business world in Lazio, Lazio Region has set up, in the framework of the POR (Regional Operational Programme) for ERDF planning (2014-2020), a Fund of Funds called "FARE Lazio", management of which is the responsibility of Lazio Innova S.p.A., an in-house providing. Within FARE Lazio, a Financial Instruments Section for risk capital has been set up, called "FARE Venture", with initial endowed funds of 60 million Euros, which may be raised to 80 million Euros; this will take action in two ways: a) subscribing to quotas or other instruments for participation in investment vehicles, with initial endowed funds of 36 million Euros; b) subscribing to quotas or other instruments for direct participation in enterprises, with initial endowed funds of 24 million Euros. Decisions on investment, management and divestment will be handed to an "Investment Committee", selected by means of the present procedure. Only candidacies which are submitted collectively by the three candidates (Team) will be accepted. The duration of FARE Venture is estimated as being not less than 12 years, with the investment period being until 2023. The remuneration for each individual post of member of the Investment Committee consists in a fixed part and a variable part, in the form of a "performance fee", with a total upper limit for the whole duration of the post set at 700,000 Euros. The deadline for submitting applications is 07/07/2017. The full text of the Call for Bids and associated supporting documentation is published at www.lazioinnova.it and www.lazioeuropa.it.
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The Economist May 27th 2017

REPUBLIC OF ALBANIA
MINISTRY OF ENVIRONMENT

INVITATION TO BID

The Ministry of Environment (in the capacity of Contracting Authority) invites interested national and foreign investors to take part in the selective competitive procedure of concession award on construction of landfill, incinerator and rehabilitation of existing landfills Tirana.

The location and documents withdrawal technicalities of the competitive procedure shall be pursuant to Law No 125/2013 as amended by Law No 88/2014 and Law No 77/2015 "On concessions and private public partnership", Law No 10463, dated 22.09.2011 "On Integrated Waste Management", Law No 8652, dated 31.07.2000 "On Local Government organization and functioning", Decision of Council of Ministers No 575, dated 10.7.2013 "On approval of rules on evaluation and award of concession/private public partnership", as amended by Decision of Council of Ministers No 146, dated 22.2.2017, Decision of Council of Ministers No 268, dated 18.04.2012 "On Electronic Competitive Procedure of Concession Award" and DCM No 175, dated 19.01.2011 "On approval of National Waste Management Strategy and National Waste Management Plan" and also Decision of Council of Ministers No 855, dated 7.12.2016 "On approval of bonus in competitive selective procedure, given to the company for award of concession on the construction of landfill, incinerator and rehabilitation of existing landfills, Tirana."

Ministry of Environment
Bulevardi Zhan D'Ark, Nr. 27, Tiranë, Shqipëri
Contact details: www.mjedisi.gov.al, info@moe.gov.al

Contact person: Mrs. Valbona Ballgjini
valbona.ballgjini@moe.gov.al

The offers shall be uploaded electronically on the APP (Public Procurement Agency) official website (www.app.gov.al) no later than 12.06.2017, at 11.00 a.m.

Any other offer received after the deadline will not be considered.

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 24th	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	2.27	-	-
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	3.72 ^{§§}	6.89	6.56
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	112	110
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	1.11	0.77	0.68
Canada	+1.9 Q4	+2.6	+2.1	+3.9 Feb	+1.6 Apr	+1.9	6.5 Apr	-51.2 Q4	-2.9	-2.7	1.48	1.34	1.31
Euro area	+1.7 Q1	+2.0	+1.7	+1.9 Mar	+1.9 Apr	+1.6	9.5 Mar	+403.9 Mar	+3.1	-1.4	0.40	0.89	0.90
Austria	+1.7 Q4	+2.0	+1.6	+3.3 Mar	+2.1 Apr	+1.8	5.9 Mar	+6.6 Q4	+2.4	-1.2	0.68	0.89	0.90
Belgium	+1.5 Q1	+2.1	+1.4	+2.6 Mar	+2.3 Apr	+2.1	6.9 Mar	-2.0 Dec	+1.0	-2.7	0.74	0.89	0.90
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	0.84	0.89	0.90
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	0.40	0.89	0.90
Greece	-0.3 Q1	-0.5	+1.2	+8.7 Mar	+1.6 Apr	+1.0	23.2 Feb	-1.2 Mar	-0.9	-1.0	6.06	0.89	0.90
Italy	+0.8 Q1	+1.0	+0.8	+2.8 Mar	+1.9 Apr	+1.4	11.7 Mar	+46.9 Mar	+2.4	-2.3	2.13	0.89	0.90
Netherlands	+3.4 Q1	+1.8	+2.2	+4.0 Mar	+1.6 Apr	+1.2	6.0 Apr	+64.8 Q4	+8.7	+0.7	0.61	0.89	0.90
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	0.89	0.90
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	0.85	23.6	24.2
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	0.69	6.65	6.66
Norway	+2.6 Q1	+0.9	+1.7	+3.3 Mar	+2.2 Apr	+2.4	4.5 Mar ^{‡‡}	+18.1 Q4	+5.0	+2.9	1.55	8.38	8.34
Poland	+3.3 Q4	+4.1	+3.2	-0.6 Apr	+2.0 Apr	+2.0	7.7 Apr [§]	-0.1 Mar	-1.0	-2.8	3.36	3.74	3.97
Russia	+0.5 Q1	na	+1.4	+2.4 Apr	+4.1 Apr	+4.3	5.3 Apr [§]	+34.9 Q1	+2.8	-2.2	8.13	56.4	66.6
Sweden	+2.3 Q4	+4.2	+2.6	+3.8 Mar	+1.9 Apr	+1.7	7.2 Apr [§]	+23.7 Q4	+4.8	+0.3	0.53	8.71	8.31
Switzerland	+0.6 Q4	+0.3	+1.3	-1.3 Q1	+0.4 Apr	+0.5	3.3 Apr	+70.6 Q4	+9.9	+0.2	-0.09	0.98	0.99
Turkey	+3.5 Q4	na	+2.8	+2.8 Mar	+11.9 Apr	+10.0	12.6 Feb [§]	-33.0 Mar	-4.4	-2.1	10.62	3.57	2.94
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	2.49	1.34	1.39
Hong Kong	+4.3 Q1	+2.9	+2.8	-0.9 Q4	+2.1 Apr	+1.6	3.2 Apr ^{††}	+14.9 Q4	+6.5	+1.5	1.37	7.79	7.77
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	6.80	64.8	67.7
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	6.93	13,308	13,690
Malaysia	+5.6 Q1	na	+4.3	+4.5 Mar	+4.4 Apr	+4.0	3.4 Mar [§]	+6.6 Q1	+3.0	-3.0	3.88	4.29	4.12
Pakistan	+5.7 2017**	na	+5.5	+10.5 Mar	+4.8 Apr	+4.6	5.9 2015 [§]	-7.2 Q1	-2.6	-4.8	8.98 ^{†††}	105	105
Philippines	+6.4 Q1	+4.5	+6.5	+11.1 Mar	+3.4 Apr	+3.3	6.6 Q1 [§]	+0.6 Dec	+0.4	-2.8	4.99	50.0	46.9
Singapore	+2.7 Q1	-1.3	+2.3	+10.2 Mar	+0.4 Apr	+1.3	2.3 Q1	+59.0 Q1	+19.8	-1.0	2.10	1.39	1.38
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	-0.5	2.27	1,126	1,193
Taiwan	+2.6 Q1	+2.9	+2.3	-0.6 Apr	+0.1 Apr	+0.5	3.8 Apr	+69.1 Q1	+12.3	-0.8	1.07	30.2	32.7
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	2.51	34.4	35.7
Argentina	-2.1 Q4	+1.9	+2.7	-2.5 Oct	+27.5 Apr [‡]	+26.0	7.6 Q4 [§]	-15.0 Q4	-2.6	-5.7	na	16.1	14.0
Brazil	-2.5 Q4	-3.4	+0.7	+1.1 Mar	+4.1 Apr	+4.3	13.7 Mar [§]	-19.8 Apr	-1.4	-7.7	10.68	3.26	3.55
Chile	+0.1 Q1	+0.7	+1.7	-8.3 Mar	+2.7 Apr	+3.0	6.6 Mar ^{§††}	-5.0 Q1	-1.4	-2.1	4.05	676	691
Colombia	+1.1 Q1	-0.9	+2.2	+4.8 Mar	+4.7 Apr	+4.1	9.7 Mar [§]	-12.5 Q4	-3.5	-3.1	6.37	2,904	3,055
Mexico	+2.8 Q1	+2.7	+1.7	+3.4 Mar	+5.8 Apr	+5.2	3.5 Mar	-27.9 Q4	-2.5	-2.4	7.33	18.6	18.4
Venezuela	-8.8 Q4~	-6.2	-6.4	na	na	+562	7.3 Apr [§]	-17.8 Q3~	-1.5	-19.6	10.43	10.1	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	4.4 Apr	+12.4 Q4	+4.4	-2.6	2.11	3.59	3.85
Saudi Arabia	+1.7 2016	na	+0.4	na	-0.6 Apr	+2.2	5.6 2015 [§]	-24.9 Q4	-2.6	-9.4	3.68	3.75	3.75
South Africa	+0.7 Q4	-0.3	+1.1	-2.4 Mar	+5.3 Apr	+5.8	26.5 Q4 [§]	-9.5 Q4	-3.4	-3.1	8.51	12.9	15.7

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. ^{§§}year yield. ^{††††}Dollar-denominated bonds.

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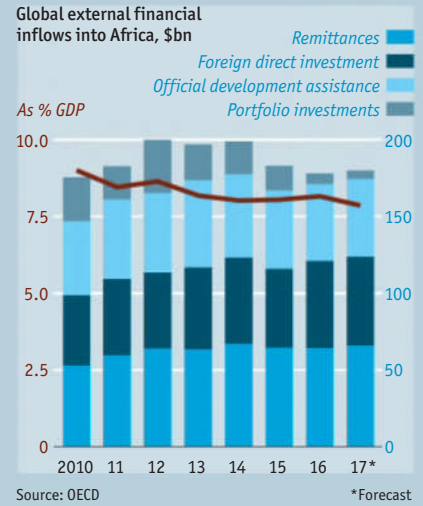
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Markets

	Index May 24th	% change on		
		one week	in local currency terms	Dec 30th 2016
United States (DJIA)	21,012.4	+2.0	+6.3	+6.3
China (SSEA)	3,208.9	-1.3	-1.3	-0.4
Japan (Nikkei 225)	19,743.0	-0.4	+3.3	+7.5
Britain (FTSE 100)	7,514.9	+0.2	+5.2	+10.3
Canada (S&P/TSX)	15,419.5	+1.0	+0.9	+0.6
Euro area (FTSE Euro 100)	1,222.2	+0.2	+9.9	+16.5
Euro area (EURO STOXX 50)	3,586.6	nil	+9.0	+15.6
Austria (ATX)	3,204.3	+2.7	+22.4	+29.8
Belgium (Bel 20)	3,902.7	-1.3	+8.2	+14.7
France (CAC 40)	5,341.3	+0.4	+9.9	+16.5
Germany (DAX)*	12,642.9	+0.1	+10.1	+16.8
Greece (Athex Comp)	766.0	-2.9	+19.0	+26.2
Italy (FTSE/MIB)	21,369.7	+0.4	+11.1	+17.8
Netherlands (AEX)	527.9	-0.2	+9.3	+15.8
Spain (Madrid SE)	1,095.6	+1.1	+16.1	+23.1
Czech Republic (PX)	1,010.7	-1.0	+9.7	+18.8
Denmark (OMXC20)	892.1	+1.9	+11.7	+18.3
Hungary (BUX)	34,251.2	+0.3	+7.0	+13.8
Norway (OSEAX)	798.7	-0.4	+4.4	+7.2
Poland (WIG)	60,812.5	+1.1	+17.5	+31.1
Russia (RTS, \$ terms)	1,087.6	-1.5	-5.6	-5.6
Sweden (OMXS30)	1,638.9	+0.6	+8.0	+12.7
Switzerland (SMI)	9,035.1	+0.4	+9.9	+14.4
Turkey (BIST)	98,313.8	+2.7	+25.8	+24.0
Australia (All Ord.)	5,811.5	-0.2	+1.6	+5.3
Hong Kong (Hang Seng)	25,428.5	+0.5	+15.6	+15.1
India (BSE)	30,301.6	-1.2	+13.8	+19.2
Indonesia (JSX)	5,703.4	+1.6	+7.7	+9.0
Malaysia (KLSE)	1,771.0	-0.3	+7.9	+12.7
Pakistan (KSE)	52,876.5	+2.6	+10.6	+10.1
Singapore (STI)	3,231.2	+0.2	+12.2	+16.7
South Korea (KOSPI)	2,317.3	+1.1	+14.4	+22.6
Taiwan (TWI)	10,044.4	+0.3	+8.5	+16.0
Thailand (SET)	1,566.2	+1.2	+1.5	+5.7
Argentina (MERV)	21,684.6	nil	+28.2	+26.0
Brazil (BVSP)	63,257.4	-6.3	+5.0	+4.8
Chile (IGPA)	24,440.8	+0.3	+17.9	+16.8
Colombia (IGBC)	10,757.9	+0.3	+6.4	+10.0
Mexico (IPC)	49,494.4	+1.5	+8.4	+20.3
Venezuela (IBC)	72,689.7	+11.2	+129	na
Egypt (EGX 30)	12,884.4	-1.4	+4.4	+4.5
Israel (TA-100)	1,299.1	+0.6	+1.7	+9.1
Saudi Arabia (Tadawul)	6,901.4	-0.7	-4.6	-4.6
South Africa (JSE AS)	54,308.7	+0.6	+7.2	+13.2

Africa

External financial flows into Africa came to a total of \$178bn in 2016, according to the OECD, down from \$183bn the year before. This was largely driven by a 60% fall in the value of inflows of portfolio investments. In 2015 these made up 9% of external inflows; in 2016 they accounted for only 4%. Global shocks mean investors have been buying fewer developing-country assets. Inflows of official development assistance and remittances also fell. But foreign direct investment in Africa increased by 10%. Countries in the Middle East and Asia are becoming a source of cash for greenfield projects. Total external inflows are expected to increase slightly this year, partly due to a projected rise in remittances.



Other markets

	Index May 24th	% change on		
		one week	in local currency terms	Dec 30th 2016
United States (S&P 500)	2,404.4	+2.0	+7.4	+7.4
United States (NASComp)	6,163.0	+2.5	+14.5	+14.5
China (SSEB, \$ terms)	316.4	-3.1	-7.4	-7.4
Japan (Topix)	1,575.1	nil	+3.7	+8.0
Europe (FTSEurofirst 300)	1,541.4	+0.2	+7.9	+14.4
World, dev'd (MSCI)	1,906.7	+1.3	+8.9	+8.9
Emerging markets (MSCI)	1,004.5	-0.4	+16.5	+16.5
World, all (MSCI)	462.7	+1.1	+9.7	+9.7
World bonds (Citigroup)	920.7	+0.3	+4.2	+4.2
EMBI+ (JPMorgan)	820.1	-0.1	+6.2	+6.2
Hedge funds (HFRX)	1,230.3 ¹	+0.2	+2.2	+2.2
Volatility, US (VIX)	10.6	+15.6	+14.0 (levels)	
CDSs, Eur (iTRAXX) ¹	62.0	+0.3	-14.0	-8.8
CDSs, N Am (CDX) ¹	61.9	+0.3	-8.7	-8.7
Carbon trading (EU ETS) €	4.9	+7.2	-25.4	-20.9

Sources: IHS Markit; Thomson Reuters. *Total return index. ¹Credit-default-swap spreads, basis points. ²May 22nd.

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The Economist commodity-price index 2005=100

	May 16th		May 23rd*		% change on	
	May 16th	May 23rd*	one month	one year	one month	one year
Dollar Index						
All Items	143.1	143.2	+1.7	+5.7		
Food	154.4	154.3	+3.3	-5.0		
Industrials						
All	131.3	131.7	-0.1	+22.5		
Nfa ¹	139.7	136.0	-0.7	+17.5		
Metals	127.7	129.9	+0.3	+24.8		
Sterling Index						
All items	201.4	200.7	+0.5	+19.0		
Euro Index						
All items	160.5	158.6	-1.0	+5.0		
Gold						
\$ per oz	1,237.4	1,260.3	-0.6	+2.1		
West Texas Intermediate						
\$ per barrel	48.7	51.5	+4.6	+6.5		

Sources: Bloomberg; CME Group; Cotlook; Darmann & Curl; FT; ICCO; ICO; ISO; Live Rice Index; LME; NZ Wool Services; Thompson Lloyd & Ewart; Thomson Reuters; Urner Barry; WSJ. *Provisional ¹Non-food agricultural.

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The man for the message

Roger Ailes, founder of Fox News, died on May 18th, aged 77

STROLLING down a corridor in a high-security jail in 1981, where he was directing an interview, Roger Ailes suddenly bumped chests with Charles Manson. America's most notorious killer looked mean and wiry, like a dangerous ferret. Mr Ailes, in his own telling, met his gaze calmly. "Mr Manson," he said, "I'm in charge of this interview. I'd like you to come with me." And Manson did so, head lowered.

The founder of Fox News seldom had a confrontation he wasn't ready for, and his life was full of them. Everyone was out to get him, but they wouldn't win. He would. Liberal elitists, jargon-spouting intellectuals and anyone who got up in the morning blaming America for the world's ills would soon hear from him, and how. If somebody got in his face, he'd get in their face.

Fox did not come to be the number-one cable-news network in America for fully 15 years, squashing Ted Turner's CNN like a bug, by parading grey talking heads offering serious analysis. On Fox News the screen flashed up constant alerts, loud whooshing heralded big stories, hot blonde anchors beamed through layers of lip gloss and commentators bawled at each other. It was a show; his show. He picked men to be pugnacious and women for nice breasts and sexy stockings. News and entertainment might be separate domains,

but he intended to walk right up to the line and plant his foot on it.

"Fair and balanced" was his motto. To those who thought Fox lacked either virtue, he replied that his single channel was giving America's legions of conservatives what CNN, NBC, CBS, ABC and MSNBC already offered liberals. "Balance" was how he persuaded Rupert Murdoch, CEO of News Corporation, to launch the network in 1996 with \$1bn and a free hand. His viewers were not moron rednecks, as the liberal media thought. They were ordinary Joes who worked hard, loved America, supported the armed forces, didn't care about feminism or polluted rivers, thought depending on federal handouts was a sin, and didn't live in New York. Good people, like those he had known growing up in a blue-collar family in Ohio, a weakly, haemophilic boy who nonetheless wanted to be a combat pilot, and liked a fight.

He was proud of those credentials. Proud, too, that he had come up the hard way, getting into student radio to pay for college and then slaving at a TV station in Cleveland, fetching sandwiches for the star guests on "The Mike Douglas Show". It was through this show (which he eventually ran, getting it syndicated in 180 cities) that he met Richard Nixon and found fame as someone who knew, as few did then,

the power of the small screen. To Nixon he explained in 1967 that TV was no gimmick, but could make or break politicians. He also told this uneasy, "somewhat weird" man how the medium could flatter him.

Mr Ailes's rules for selling a TV message were simple. His book, "You are the Message", spelled it out. Play to your strengths. Don't pick defence. Say what you want to say. Be emotional, not intellectual; keep to themes, avoid details. These lessons he taught Ronald Reagan in 1984 for his second debate with Walter Mondale; Reagan won the election. So did several others whom Mr Ailes advised to parade their dear old mothers, or their dancing skills, rather than prove their fitness for the Senate.

This was the attitude he brought to Fox. Its personalities were striking, because viewers would decide in seven seconds whether or not to watch. The debates were punchy and graphic, because viewers tired of arguments in a minute. Fox stressed themes, not facts, tugged heartstrings and banged drums for America's wars. It pushed conspiracies, from Benghazi to Obama-is-a-Muslim, which the *New York Times*, that "cesspool of bias", barely mentioned. And, like him, it was often angry.

Some called him the most dangerous man in the country, filling 2m heads a night with flaming garbage. (These were mostly elderly, male, white heads; 40% of Trump voters relied on him for their news.) "Here comes the most powerful man in America," said Barack Obama once, as he lumbered up. He liked that, and relished how other channels copied him; cable, he said presciently in 2003, was "beginning to change the agenda of what is news". But he still believed he was balancing that news, not skewing it. He recruited Democrats for Fox, too. He gave Obama grief, but also gave Bush grief. In the past he had interviewed Malcolm X several times, and a portrait of FDR hung in his library.

Under siege

Not many (save Zev Chafets, his biographer) knew that. Mr Ailes liked both privacy and secrecy. In his New York office, behind a stout wooden door with the blinds drawn, he obsessively checked Fox's standings against CNN, his "holy war". On the wall was a picture of Washington's camp at Valley Forge; like his hero, he too was under siege. Enemies were all around. By 2016 they were also emerging from within Fox, in the shape of women employees suing him for groping and propositioning. "If you want to play with the big boys, you have to lay with the big boys," one claimed he told her.

He said it was all made up, but it marked the end of his time at Fox and the end, too, of his power. Suddenly, he was the one backing down and unprepared. This reversal of roles was death in itself. ■

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