

**The
Economist**

Trump's economic plan. Sad!

A dirty drug war in the Philippines

Warren Buffett's wonky halo

Wild horses and an unbridled Congress

AUGUST 13TH-19TH 2016

Cheating death

The science that can extend your lifespan





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Politics



Voters in **Thailand** backed a draft constitution put forward by the armed forces in a referendum. The ruling junta threw out the old constitution when it took power in 2014, after months of political insecurity. Critics say the new document will entrench military control. Supporters hope it will restore stability. Thailand's biggest political parties opposed the new constitution but have said they will accept the result of the referendum.

A suicide-bomb and shooting attack killed more than 70 people at a hospital in Quetta in south-west **Pakistan**. The attack targeted the emergency department, where the body of a prominent lawyer shot dead earlier that day had been brought. A faction of the Pakistani Taliban claimed responsibility for both atrocities.

Japan's foreign minister twice summoned the **Chinese** ambassador to protest against the sailing of dozens of Chinese ships close to the Senkaku islands in the East China Sea. The Chinese call the islands the Diaoyu and claim them as their own. The stand-off comes after an international court rejected China's historic claims to most of the South China Sea.

Emperor Akihito of Japan suggested that he wants to step down. The 82-year-old is barred from making political statements, so did not state explicitly a plan to abdicate. But he said he has "started to reflect" on his time as emperor and contemplate his position in the years to come.

India's prime minister, Narendra Modi, denounced vigilantes belonging to so-called cow-defence squads. His comments came after a series of violent attacks on Muslims and low-caste Hindus for transporting cattle, disposing of cow carcasses and eating beef. Cows are revered by high-caste Hindus.

Closer, but no cigar

Donald Trump gave a much-anticipated speech that set out his ideas on the economy, and brought him closer to accepting the agenda of Republicans in Congress on taxes and regulation. Sharp differences remain over trade deals, which the presidential candidate has vowed to renegotiate.

The Justice Department produced its report into the **Baltimore** police department, a year after the death of a black man in police custody sparked the city's worse riots in decades. The report found that "zero tolerance" policing had eroded relations with Baltimore's black residents; only 4% of people stopped and searched by police were charged or given a citation.

A city in ruins

The fighting intensified in Aleppo. Rebels in the east of what was once **Syria's** largest city managed to break out following their encirclement by government forces, but have since come under heavy bombardment by government and Russian planes. UNICEF warned that water has been cut off from most of the city for several days. Russia has promised a daily three-hour cease-fire for aid deliveries.

Shahram Amiri, an **Iranian** scientist who defected and gave America information about the country's illicit nuclear-weapons programme, was hanged for treason, the Iranian government said. He returned to Iran after threats were made against his family.

The Egyptian government announced that it had killed the leader of the Sinai branch of **Islamic State**.

The head of **Zambia's** electoral commission said that "unprecedented" violence had marred presidential and parliamentary elections.



Anti-government demonstrations across **Ethiopia** provoked an angry response from the authorities. Human-rights groups described how police had fired at protesters in several cities, killing dozens.

The strongmen

Presidents Recep Tayyip Erdogan of **Turkey** and Vladimir Putin of **Russia** vowed to repair diplomatic ties that have come under strain since Turkey's shooting down of a Russian military jet near Syria. They met in St Petersburg amid growing tensions between Turkey and the West. Meanwhile in Moscow, Mr Putin allowed a rare protest to take place: a big demonstration against new anti-terrorism laws.

Russia's Federal Security Service said that it had thwarted an insurrection in Crimea, heightening tensions with **Ukraine**. Petro Poroshenko, the president of Ukraine, denied the allegations and accused Russia of accelerating military threats.

Norway could block **Britain's** bid to join the European Free Trade Association after it leaves the European Union, according to Norway's European affairs minister, as it fears the addition of such a large economy would not be in its interest. Other countries in the association, however, are keen for Britain to join.

Spain and **Italy** were spared fines for missing deficit-reduction targets. EU governments

agreed to give the countries extra time to reduce their budget deficits. The decision, was met with scepticism in several member states, particularly in Germany, where many feel that being lenient to Spain and Italy undermines the credibility of the euro zone.

Toying with the opposition

Venezuela's election commission set the end of October as the probable time when the opposition can move to the next stage of a referendum to recall the president, Nicolás Maduro. Signatures from 20% of the electorate are required to hold the recall. The decision to wait may make it impossible to hold the referendum itself before January 10th. If a referendum passes before that date, a new presidential election will be held. If it succeeds after that, Mr Maduro would be replaced by the vice-president.

Brazil's senate voted to put the president, Dilma Rousseff, on trial on charges that she tampered with fiscal accounts. She stepped aside in May, after the lower house of congress forwarded the charges to the senate, leaving the vice-president, Michel Temer, in charge of government.



The **Olympic games** opened in Rio de Janeiro. Brazilians, unhappy about the country's severe recession and deep political crisis, were cheered by a show that celebrated Brazil's cultural variety. The games themselves suffered glitches: queues were long, athletes complained of raucous fans and a chemical imbalance turned the water in the pools used for diving and water polo bright green. But earlier fears of chaos abated. ▶▶

Business

The **Bank of England** hit a problem on the second day of its expanded quantitative-easing programme when it fell £50m short in its attempt to buy £1.17 billion (\$1.5 billion) in bonds with maturities of 15 years or longer. It was the first daily shortfall since the central bank started QE in 2009. Amid signs that Britain's post-Brexit economy is weakening the bank has pledged to buy £60 billion in government bonds and up to £10 billion in corporate bonds over the next 18 months (it has also cut interest rates). Pension funds hold most of the bonds dated 15 years or longer, which have better returns than shorter-dated ones.

British pensions

In the Pension Protection Fund, aggregate deficit, £bn



Source: Pension Protection Fund

Meanwhile, 85% of the nearly 6,000 British **pension funds** covered by the Pension Protection Fund are in deficit. The total deficit was £408 billion (\$530 billion) at the end of July, an astonishing rise of £113 billion since May.

Four years after it settled with America's federal authorities and British regulators in the LIBOR scandal, **Barclays** agreed to pay \$100m to 44 American states to bring an end to their investigation of the bank regarding the rigging of the benchmark interbank lending rate. Barclays, which neither admitted nor denied any wrongdoing in this week's resolution, is the first large bank to settle with the states.

Walmart said it would buy **Jet.com** for \$3.3 billion, marking a big shift in the giant retailer's internet strategy as it ramps up its competition with Amazon. Walmart launched

an online site 15 years ago, but last year this contributed just 3% to its total sales. Jet's business has soared over the past two years by offering incentives to shoppers on its website to buy in bulk. Jet's founder, Marc Lore, will hope to replicate that success at Walmart when he becomes the combined company's head of e-commerce.

Inseparable bedfellows

Continuing its acquisitive streak, **Steinhoff**, a furniture retailer that is based in South Africa but which also owns several furniture chains in Europe, made its first foray into America by offering to buy **Mattress Firm** for \$4 billion. Steinhoff recently struck a deal to buy Poundland in Britain for £610m (\$790m). Earlier this year Mattress Firm took over Sleepy's, a rival. The combined company has 3,500 stores across America.

A problem at its technology centre in Atlanta caused **Delta Air Lines** to ground all its planes worldwide for several hours, leading to cancellations and delays in the 5,000 flights it operates each day. Other airlines have had technology issues that have affected operations recently, but Delta's was the worst. The industry's rapid

consolidation is partly to blame for patching together airlines' creaking IT systems.

Britain's Serious Fraud Office confirmed that it is investigating some of the contracts for civilian aircraft awarded to **Airbus** in emerging markets. The probe is centred on the company's use of third-party agents to smooth negotiations with a number of airlines that are closely associated with their national governments.

America's **labour productivity** rate, which measures hourly output per worker, fell by 0.5% in the second quarter, extending the longest decline in productivity since the late 1970s. This suggests there will be a further squeeze on companies' profit margins. Hourly pay rose by 1.5% in the quarter after declining by 0.8% in the first.

Australia's treasurer, Scott Morrison, blocked a consortium led by China's State Grid Corporation from taking a controlling stake in Ausgrid, **Australia's biggest electricity network**, pending its response to concerns that a sale would jeopardise national security. In Britain the government's delay in giving the go ahead for a new nuclear-power station at **Hinkley Point**, reportedly

over unease about China's involvement in the project, drew a rebuke from the Chinese ambassador, who warned that relations between the two countries were at a "crucial historical juncture".

Claiming it was standing up for its principles, **Facebook** made changes to its desktop website that enable advertisements to sneak past **adblocking** software by disguising them as original content. It is the most significant attempt yet by an internet firm to deal with the challenge posed by adblockers; a quarter of internet users in America have one installed on their computer. Facebook gets 84% of its ad revenue from mobile devices, which are less responsive to adblockers.

A crunchy deal

Tyrrells, a British maker of potato crisps with posh flavours such as Ludlow sausage and mustard, was sold to **Amplify Snack Brands** in Texas for £300m (\$390m). Tyrrells is currently owned by a private-equity firm in Bahrain, but it was created in 2002 by a farmer in Herefordshire as a way to use his oddly shaped discarded potatoes.

Other economic data and news can be found on pages 68-69



Cheating death

Science is getting to grips with ways to slow ageing. Rejoice, as long as the side-effects can be managed



IMAGINE a world in which getting fitted with a new heart, liver or set of kidneys, all grown from your own body cells, was as commonplace as knee and hip replacements are now. Or one in which you celebrated your 94th birthday by running a marathon with your school friends. Imagine, in other words, a world in which ageing had been abolished.

That world is not yet on offer. But a semblance of it might be one day. Senescence, the general dwindling of prowess experienced by all as time takes its toll, is coming under scrutiny from doctors and biologists (see pages 14-16). Suspending it is not yet on the cards. But slowing it probably is. Average lifespans have risen a lot over the past century, but that was thanks to better food, housing, public health and some medicines. The new increase would be brought about by specific anti-senescence drugs, some of which may already exist.

This, optimists claim, will extend life for many people to today's ceiling of 120 or so. But it may be just the beginning. In the next phase not just average lifespans but maximum lifespans will rise. If a body part wears out, it will be repaired or replaced altogether. DNA will be optimised for long life. Add in anti-ageing drugs, and centenarians will become two a penny.

Man and superman

To this end, many hopeful repairmen are now setting up shop. Some of them want to upgrade worn-out tissues using stem cells (precursors to other sorts of cell). Such bio-renovation is the basis of an unproven, almost vampiric, treatment in vogue in some circles: transfusion into the old of the blood of the young (see Schumpeter). The business of growing organs from scratch is also proceeding. At the moment, these "organoids" are small, imperfect and used mainly for drug testing. But that will surely change. Longevity is known to run in families, which suggests that particular varieties of genes prolong life. Some are investigating this, with the thought that modern gene-editing techniques might one day be used to make crucial, life-extending tweaks to the DNA of those who need them.

From an individual's viewpoint, this all sounds very desirable. For society as a whole, though, it will have profound effects. Most of them will be good, but not all.

One concern is that long life will exacerbate existing social and economic problems. The most immediate challenge will be access to anti-senescence treatment. If longer life is expensive, who gets it first? Already, income is one of the best predictors of lifespan. Widening the gap with treatments inaccessible to the poor might deepen divisions that are already straining democracies.

Will older workers be discriminated against, as now, or will numbers give them the whip hand over the young? Will bosses cling on, stymying the careers of their underlings, or will they grow bored, quit and do something else entirely? And would all those old people cease to consider themselves elderly, retaining youthfully vigorous mental attitudes as well

as physical ones—or instead make society more conservative (because old people tend to be)?

A reason for hoping that the elderly would turn out less hidebound is that life itself would be more a series of new beginnings than one single story. Mid-life crises might be not so much about recapturing lost youth as wondering how to make the most of the next half-century.

Retirement would become a more distant option for most, since pension pots would have to be enormous to support their extended lifespans. To this end, the portfolio career would become the rule and education would have to change accordingly. People might go back to school in their 50s to learn how to do something completely different. The physical labourer would surely need a rest. The accountant might become a doctor. The lawyer, a charity worker. Perhaps some will take long breaks between careers and party wildly, in the knowledge that medicine can offer them running repairs.

Boredom, and the need for variety, would alter family life, too. How many will tie the knot in their 20s in the expectation of being with the same person 80 years later? The one-partner life, already on the decline, could become rare, replaced by a series of relationships, each as long as what many today would consider a decent marital stretch. As for reproduction, men's testes would presumably work indefinitely and, though women's ovaries are believed to be loaded with a finite number of eggs, technology would surely be able to create new ones. Those who wished to could thus continue to procreate for decades. That, and serial marriage, will make it difficult to keep track of who is related to whom. Families will start to look more like labyrinthine networks. In the world where marriages do not last, women everywhere will be freer to divorce and aged patriarchs will finally lose their hold.

Such speculation is fun, and mostly optimistic. The promise of a longer life, well lived, would round a person out. But this vision of the future depends on one thing—that a long existence is also a healthy one. Humanity must avoid the trap fallen into by Tithonus, a mythical Trojan who was granted eternal life by the gods, but forgot to ask also for eternal youth. Eventually, he withered into a cicada.

Forward to Methuselah

The trap of Tithonus is sprung because bodies have evolved to be throwaway vessels for the carriage of genes from one generation to the next. Biologists have a phrase for it: the disposable soma. It explains not only general senescence, but also why dementia, cancer, cardiovascular problems, arthritis and many other things are guarded against in youth, but crammed into old age once reproduction is done with. These, too, must be treated if a long and healthy life is to become routine. Moreover, even a healthy brain may age badly. An organ evolved to accommodate 70 or 80 years of memories may be unable to cope when asked to store 150 years' worth.

Yet biological understanding is advancing apace. Greater longevity is within reach—even if actual immortality may not be as close (or as interesting) as some fantasists would like to believe. Be sure to draw up a very long bucket list. ■

War against crime in the Philippines

A harvest of lead

Rodrigo Duterte is living up to his promise to fight crime by shooting first and asking questions later



THE Philippines' kill-list of suspected drug-pushers shot by the police or unknown gunmen gets longer by the day. By one count more than 600 people have died since Rodrigo Duterte was elected president on May 9th; another puts the total at nearly 1,000. Inaugurated on June 30th, Mr Duterte has taken to naming senior officials publicly as suspected narcos: generals, policemen and judges have been told to resign and submit to investigation. Or else? The kill list speaks for itself.

Mr Duterte is unabashed at international criticism, boasting that he does not care about human rights or due process. He was elected on a promise to eradicate crime, even by killing 100,000 gangsters and dumping their bodies in Manila Bay. More worrying still is that the bloodletting is popular with Filipinos, many of whose lives are blighted by poverty and crime.

That satisfaction will not last. Wholesale extrajudicial killing is no solution to the Philippines' many problems. Instead, it will lead only to more misery.

From Davao with bullets

Mr Duterte has been schooled in the violent politics of Mindanao, the southern and most lawless large island of the archipelago. A region historically influenced by Islam and progressively settled by Christians, Mindanao still has the feel of a restless frontier. It has been plagued by both communist and Muslim insurgencies, now more or less quiescent apart from splinter groups affiliated to al-Qaeda and Islamic State. Assassinations and death squads have been endemic. Davao City, of which Mr Duterte was mayor for 22 years, has been a byword for violent crime.

Mr Duterte claims to have cleaned up Davao by being the

baddest man in town. But his tenure is hardly the success he claims it to be: crime rates are high and the city is still the country's murder capital. Now he is bringing the methods of Davao to Manila (see page 25). That so many should find this appealing speaks volumes about how far Filipino institutions have rotted, under both the dictatorship of the late Ferdinand Marcos and successive democratically elected presidents.

Mr Duterte would have the world believe that the Philippines' corrupt and ineffective police have suddenly become omniscient—able to tell innocence from guilt and decide who may live and who should die. When he menacingly read out the names of more than 150 officials deemed connected to the drug trade, at least two of those whom he fingered were already dead. It would be comical were the consequences not so horrifying. One recent picture shows a distraught woman cradling her husband lying dead next to a sign, *pusher ako* ("I am a drug pusher")—a tropical version of Michelangelo's "Pietà".

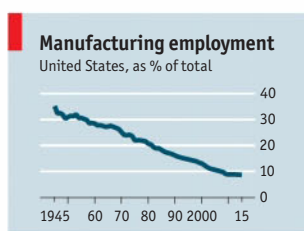
Right now Mr Duterte seems beyond restraint. When the chief justice demanded proper arrest warrants, Mr Duterte threatened to impose martial law. And when the American ambassador expressed misgivings, Mr Duterte labelled him *bakla*, a pansy. But Filipinos and their foreign friends must keep exerting pressure on him.

The lesson of the drug wars in Latin America, and of previous dirty wars, is that extrajudicial violence resolves nothing and makes everything worse. Innocent people will be killed; and denunciations will also be used to settle scores and exploited by gangs to wipe out rivals. Filipinos' desire for instant retribution will, surely, turn to horror, hatred and revenge. The rule of law will erode. Investors, who have made the Philippines one of globalisation's winners in recent years, will flee. The only winners will be the still-lurking insurgents. Mr Duterte's ill-conceived war on drugs will make the Philippines poorer and more violent. ■

Trump's plan for the economy

Scrimping on sense

The Republican nominee's ideas on the economy are thoughtless and dangerous



economic policy, was an opportunity to explain at greater length how he hopes to achieve the economic boom that he promises American workers. Alas, the extra detail did not bring greater clarity. Even when sticking to a script, Mr Trump seems incapable of producing ideas of depth and rigour. His

plan is more wild brainstorm than policy memo. Mr Trump paints a picture of the economy that is irreconcilable with the facts. He says jobs are scarce, poverty is rising and incomes are stagnant. But in reality America's economy is the strongest in the rich world. Unemployment is only 4.9%. The poverty rate, though high, has been falling since 2012. And median earnings have risen by 5% in real terms in the past two years. It is normal for opposition politicians to exaggerate economic problems, and the image of an economic wasteland is based on the genuine problems of areas that relied on low-value manufacturing, where workforce-participation has fallen (see page 62). But Mr Trump goes much further, claiming that America's unemployment statistics are "a hoax".

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▶ The treatments he proposes are no better than his diagnosis. To boost growth, he promises to free the economy from “onerous” government regulations and to cut taxes. That sounds fair enough, until you get to the details. Mr Trump would scrap the wrong regulations. America has as many barmy rules as the next country—such as those, often at state level, which mean that more than a quarter of workers must hold occupational licences. Yet, for reasons best known to him, Mr Trump chooses to focus on federal energy and car regulations designed to ameliorate climate change.

On tax, he has watered down the ruinously expensive plan he put forward during the primaries. He now promises to cut the top rate of income tax from 39.6% to 33% (instead of 25%). He would still cut corporate tax by more than half. There is, though, no plan for how to pay for this largesse, other than to borrow (how much is unknown, because he has revealed just the contours of his proposal). Even if America could afford this profligacy, spare cash would be much better spent fixing the country’s wretched infrastructure than on tax cuts for the rich. As it happens, Mr Trump has promised that, too. But he thereby only exacerbates his difficulty in coming up with the astronomical sums needed to pay for his ideas.

The worst part of the Trump economic plan is its defining element: trade policy. His protectionism would wreck the economy, reduce wages and achieve little in return.

If America shredded trade deals and imposed tariffs on Chinese and Mexican imports, jobs would not simply reappear as Mr Trump claims. Manufacturing’s share of employment has

fallen mostly because of technology, not trade. Indeed, it is almost exactly where you would predict it to be just by extrapolating the 1946-80 trend. Were Mr Trump miraculously to turn back productivity gains, he would add to the problems by causing average wages to fall. And those few jobs that did return would cater only to domestic demand: high-cost American workers would not be able to sell to the world as they did.

Bad!

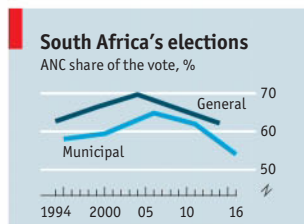
Protection would threaten high-value manufacturing jobs. It would disrupt the global supply chains which see routine work done overseas and trickier bits done in America. That is all the more troubling because export-supported jobs pay a wage premium of roughly 18%. Retaliatory tariffs on American exports would reduce overseas sales. Worse still, tariffs would eviscerate the purchasing power of American wages, as imported goods, from clothes to dishwashers, would become more expensive. The poorest Americans, who spend the highest share of their incomes on goods, would suffer most.

Mr Trump denies that he opposes all trade, and promises “great” deals to replace those he scraps. Yet he has not explained what such deals might look like. Instead, he asks Americans to share his belief in his own negotiating talent, and to believe him when he says, contrary to all reason, that reviving manufacturing “won’t even be that hard”. Meanwhile, his proposals threaten the jobs and living standards of millions of Americans. Rarely has a candidate for president been less deserving of such a leap of faith. ■

South Africa

Time to govern

There is now a genuine alternative to the ANC



EVER since Nelson Mandela led South Africa into the democratic era in 1994, the country has been ruled by the African National Congress (ANC), the main movement that opposed apartheid. In every election since, it has secured about

60-70% of the vote. But in local ballots this month the party’s share fell to 54%. The mighty ANC now looks mortal. This is a humiliation for its leader, Jacob Zuma, whose tenure in office has been marked by corruption and misrule. His legacy may be the loss of the ANC’s majority in the election of 2019.

By contrast, the outcome is a triumph for Mmusi Maimane, the impressive young leader of the Democratic Alliance (DA). But before Mr Maimane can become South Africa’s giant-slayer he must resolve the dilemma of power: should his party seek to govern some of South Africa’s leading cities by forming an alliance with the radical, dangerous Economic Freedom Fighters (EFF) or should it keep clean and stand aloof?

We think that, for the right sort of deal, he should dare. The prizes on offer are glittering. In Johannesburg, the commercial capital, the ANC got only 44% of the vote, losing its majority even though the municipality encompasses the vast vote bank of Soweto and other black townships. In Tshwane, which contains the federal capital, Pretoria, it fared even worse: with just

41% of the vote there, it was overtaken by the DA. The DA also won massively in Nelson Mandela Bay, which includes South Africa’s sixth-biggest city, Port Elizabeth.

The DA has governed Cape Town for ten years, but had until now failed to break out of the Western Cape. Mr Maimane, just 36, is the first black leader of a liberal party hitherto led by whites. His increased haul of votes is a testament to the solid work he has done in holding Mr Zuma to account. But in Johannesburg and Tshwane, his party will not be able to govern unless it forms a coalition with the EFF and its red-bereted leader, Julius Malema.

It would not be an easy alliance. Mr Malema favours the rhetoric of class and racial conflict, and espouses economic policies that would be applauded by Robert Mugabe in Zimbabwe, but few others. Where Mr Maimane is quietly spoken and reassuringly pro-business, Mr Malema, 35, is a rabble-rouser. Yet fate, and electoral arithmetic, may now cast these two young men together.

City of electoral gold

The downside of a coalition is obvious: there is a clear risk that it will lead to chaotic rule, a speedy divorce and a tarnishing of the DA’s hard-won reputation for competence. But the upside is also considerable. It was only through another coalition, with a group of tiny parties, that the DA got its first break in Cape Town, and started to establish the record of effective go-▶

▶ vernance that has enabled it steadily to increase its vote at election after election across the country.

A deal with the EFF, provided that it held together for a respectable amount of time, would powerfully reinforce that trend. And it could also act as an antidote to the unfair but toxic charge, levelled by the ANC's backers, that Mr Maimane is nothing but a black face on a white party. In fact, the DA's candidate for mayor of Johannesburg is Herman Mashaba, probably South Africa's most successful self-made black businessman. A deal with the EFF could bring the DA vital credibility in black townships where Mr Maimane has not yet made much of an impact.

Any coalitions should be local, not national, to act as insulation against Mr Malema's future antics. They must respect the fact that the DA won far more votes than the EFF, so the top jobs—mayors, finance directors, economic-development chiefs—ought to stick with the main opposition party. But the EFF should be allowed to handle important bread-and-butter issues like transport and housing. It, too, would have a chance to demonstrate competence, or perhaps its unfitness to govern.

Both parties face big opportunities and potentially fatal dangers by joining forces, but they should take the risk. The biggest winners would be South Africans, who deserve to be given a choice of credible parties to rule them. ■

Preventing child-abuse

First, save the children

Punitive laws intended to protect children from sexual assault too often make them less safe



THE sexual abuse of children wrecks lives. Survivors can suffer severe harm to their mental and physical health. That is one reason why no crime provokes greater revulsion. Another is that a shamed society has only recently begun to acknowl-

edge how common abuse really is. And yet, precisely because abuse has been covered up for so long, no crime is more widely misunderstood. The result is that the need to punish abusers is sometimes being pursued at the expense of prevention. That means children are not being protected as they should be.

The duty of care

Typical of the confusion about child-abuse is that those who commit it are widely thought all to be paedophiles—that is, adults whose main sexual attraction is to pre-pubescent children. In fact paedophiles are a minority (see pages 42-44). Some abusers' victims are sexually mature, though below the age of consent. Others abuse because younger children are defenceless or because of a sense of entitlement or social inadequacy. Such distinctions matter, because spotting and stopping crimes means knowing who commits them, and why.

For instance, understanding the behaviour of true paedophiles is essential, because they include some of the most serious and prolific offenders. Evidence suggests that paedophilia is usually a fixed sexual orientation. Hence the threat of prison and social rejection, although they make everyone else feel better, are only part of the way to deter offenders. Children would be better protected if paedophiles could also use counselling and supervision to learn to control themselves; some paedophiles can be helped by drugs that dampen sexual desire. But the fear of vilification means that hardly any seek help voluntarily—and without it they are more likely to offend.

As awareness of child-abuse has grown, the punishment of past crimes has sometimes taken precedence over the prevention of future ones. Many countries have set up public inquiries. But the understandable desire to end cover-ups has favoured the idea that a bigger inquiry signals a more sincere attempt to get at the truth and learn lessons. Britain's, which last week lost its third head since it was set up in 2014, receives

100 new allegations weekly but has yet to hear any evidence. Survivors—and those at risk of abuse—would be better served by investigations that are smaller, faster and more focused.

Many places have toughened sentencing and parole conditions. In many American states convicted child-molesters' names are put on a public register for life, and their addresses, workplaces and licence-plate numbers published online. Leave aside whether anyone should be beyond redemption: isolation and joblessness make reoffending more likely. Sex-offender registers also foster a false sense of security, because they include only those few whose crimes have been detected.

Tough but flawed laws were inspired by rare, horrific child-abductions—rather than the abuse that commonly takes place within families. Similarly, the spread of new mandatory-reporting laws was inspired by child-abuse within institutions, such as the Catholic church, schools and care homes, and Britain's publicly funded broadcaster, the BBC. Already in force in America, Australia and Canada, and being considered in Britain, mandatory reporting criminalises anyone who fails to report suspicions of child-abuse to the police. At first sight this seems a useful weapon against cover-ups, but it is flawed, too.

Broad mandatory reporting can deter children from talking to a trusted adult, such as a teacher, because they know that their words will be passed to the police and they may be taken from their families. If long-past cases are included, adults who were abused as children will not be able to seek counselling without triggering a criminal investigation they may not want. They may choose instead to keep their suffering to themselves. Such laws can also overwhelm police and social services who could otherwise focus on the children most at risk. In just one year the Australian state of Queensland received reports relating to 7% of all children. Only a tiny share had substance.

Legislation can cut abuse, but it needs to be narrower. In the cover-ups, many who suspected abuse kept silent for fear of harming their institutions or themselves. New laws should focus on wrongdoing in such bodies, requiring people within them to report reasonable suspicions about a colleague; these should be coupled with protection for whistle-blowers.

More needs to be understood about the abuse of children and how to stop it. Governments should sponsor research. And when they draft laws they should remember that what matters most is protecting children. ■

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Britain's place in the world

To say that Britain's stature in the world must inevitably shrink post-Brexit (Bagehot, July 23rd) is not simply too gloomy, it is also a dangerous fatalism that underestimates our ability to show bold leadership in the world. Now more than ever, Britain must wield its positive influence to the full. With multiple crises threatening the international system, the new government should forge a vision of Britain's role as a beacon of human rights, democratic principles and international co-operation, and a foreign policy that is not just about buying and selling to others.

We have the tools to do so. Our commitment to spending 2% of GDP on defence makes us one of NATO's power brokers; our leadership at the UN and groupings like the International Syria Support Group has the potential to drive through ambitious collective responses to catastrophes; and we lead by example in our investment in global public goods, such as international development.

Boris Johnson, the foreign secretary, has stated that we need more Britain in the world, not less. A government united around that vision is required more than ever and would soon dispel your counsel of despair.

LORD WOOD OF ANFIELD
Chair

United Nations Association, UK
London

Adjusting to reality

Reading that *The Economist* agrees with "managing globalisation" ("The new political divide", July 30th) is music to the ears of those of us throughout the Americas who have struggled to tame the Washington consensus. Be they structural-reform programmes in the 1980s, with conditions enforced by multilateral financial institutions and the Treasuries of rich countries, or free-trade agreements such as CAFTA, a radical free-market ideology was shoved at us as the only way.

Paradoxically, these same

forces promoted a whole array of tax exemptions, subsidies and extra protections for multinational investments. Whoever dared to suggest a middle ground was branded a communist or ignorant.

In that survival-of-the-fittest world (which included special concessions for the already fit), millions were left behind. The advent of leftist populism in Venezuela and other Latin American countries as a reaction to that ideology only forestalled the anti-globalisation forces that are now apparent in Western countries.

ΟΤΤΩΝ ΣΟΛÍS

San José, Costa Rica



You used the metaphor of a drawbridge to illustrate your argument that the new political alignment is no longer between right and left but between open and closed societies ("Drawbridges up", July 30th). But the whole purpose of having a drawbridge is that one can raise or lower it as necessary depending upon the situation at hand. A proper castle requires a sensible fellow at the controls.

R.D.G. STOUT
New York Mills, Minnesota

Why Hinkley matters

You urged the British government to cancel the Hinkley Point nuclear-power project and instead spend the money on renewable energy ("Hinkley Pointless", August 6th). There are a few things to bear in mind that were not mentioned in your leader. We take the construction risk. The consumer pays nothing before Hinkley starts producing electricity. The fact that prices decades from now are unknown is precisely why in-

vestors and consumers benefit from a set price today. It protects consumers from volatility. It makes investment possible. You also claimed that combined-cycle gas turbines are cheaper to run ("When the facts change...", August 6th). That is only true based on today's low gas and carbon prices and with the running costs of existing plants. The correct comparison is with future options. Under the government's central forecast for gas and rising carbon prices, the cost of a gas-plant commissioning in 2025 is close to the Hinkley strike price.

Moreover, the government's pledge to pay £92.50 (\$120) per megawatt hour for Hinkley's output is lower than the average £123 per MWh in renewables' support schemes. You compared specific technologies without considering the whole-system cost. In fact, a low-carbon mix with nuclear is significantly more affordable than one without. Other technologies play a role but cannot replace the need for large-scale low-carbon generation.

Hinkley will create thousands of jobs as part of a real industrial strategy. Suggesting that Britain could "muddle along" is an unwise response to the issues of energy security and climate change. Hinkley Point is a wise response.

PAUL SPENCE
Director of strategy and corporate affairs
EDF Energy
London

If computers wrote laws

"Micro-directives" have been around since laws existed and computers will not change that ("Decisions handed down by data", July 16th). When lawmakers realise they can no longer control the beast, they sprinkle it with terms like "reasonable, fair, adequate" and other vague guidelines. Imagine a traffic-light regulation that says: "On green the driver may cross the road, unless, under the given circumstances, a reasonable person would consider this to be risky, inadequate or reckless." We now need a lawyer

as a co-driver.

The problem with too many rules is that human life with all its interactions is too unpredictable to be programmed. The trick is to draw a hard line between frequent events and rare, unforeseeable events. The former need to be programmed in truly binary code. The latter must be left to the discretion of officials and the courts.

KARL-ERBO KAGENECK
Munich

Can Trump reach 270?

If Donald Trump were to obtain most votes in the election, we might be saved by the electoral college ("Donning the mantle", July 23rd). Under normal circumstances, the 538 electors in the electoral college vote in line with the popular vote in each state. In some states, this is a legal requirement. But there is no federal law to say they must vote that way, and in almost half the states there is no legal requirement for them to do so. These include big states such as New York, Pennsylvania, Illinois and Texas.

The Founding Fathers did not trust the popular will when it came to electing the American president. It might turn out that they have got it right in 2016.


ANDREW STOLER
Adelaide, Australia

Sell off the Remainers

You asked, what if countries could trade land to resolve territorial disputes ("A country market", July 16th)? In addition to the examples you gave, Northern Ireland could be sold by the United Kingdom to Ireland. Scotland could be sold to the European Union or the highest bidder. This would help cover some Brexit costs.

ALEX PETRACHKOV
Geneva ■

Letters are welcome and should be addressed to the Editor at The Economist, 25 St James's Street, London SW1A 1HG
E-mail: letters@economist.com
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Adding ages

The fight to cheat death is hotting up

MICHAEL RAE eats 1,900 calories a day, 600 fewer than recommended. Breakfast is a large salad, yogurt and a “precisely engineered” muffin. In a mere 100 calories this miracle of modern gastronomy delivers 10% of Mr Rae’s essential nutrients. Lunch is a legume-based stew and another muffin. Dinner varies. Today he is looking forward to Portobello mushroom with aubergine and sage. There will be a small glass of red wine. He has been constraining his diet this way for 15 years.

In some animals calorie restriction (CR) of this kind seems to lessen the risk of cancer and heart disease, to slow the degeneration of nerves and to lengthen life. Mr Rae, who works at an anti-ageing foundation in California, thinks that if what holds for rodents holds for humans CR could offer him an extra seven to 15 years of healthy life. No clinical trials have yet proved this to be the case. But Mr Rae says CR dieters have the blood pressure of ten-year-olds and arteries that are clean as a whistle.

The “profound sense of well-being” Mr Rae reports might seem reward enough for his privations. But his diet, and the life extension he thinks it might bring, are also a means to an end. Mr Rae, who is 45, thinks radical medical advances that might not merely slow but stop, or reverse, ageing will be available in the not-too-distant fu-

ture. If CR gets him far enough to benefit from these marvels then a few decades of deprivation might translate into additional centuries of life. He might even reach what Dave Gobel, boss of the Methuselah Foundation, an ageing-research charity, calls “longevity escape velocity”, the point where life expectancy increases by more than a year every year. This, he thinks, is the way to immortality, or a reasonable approximation thereof.

That all remains wildly speculative. But CR is more than just an as-yet-unproven road to longer human life. Its effects in animals, along with evidence from genetics and pharmacology, suggest that ageing may not be simply an accumulation of defects but a phenomenon in its own right. In a state of nature this phenomenon would be under the control of genes and the environment. But in a scientific world it might in principle be manipulated, either through changes to the environment (which is what CR amounts to) or by getting in among those genes, and the metabolic pathways that they are responsible for, with drugs.

A treatment based on such manipulation might improve the prospects of longer and healthier life in ways that drugs aimed at specific diseases cannot match. Eileen Crimmins, a researcher at the University

of Southern California in Los Angeles, points to calculations which show that the complete elimination of cardiovascular disease would add only 5.5 years to overall life expectancy in America, and removing deaths from cancer would add just 3.2 years. This is because diseases compete to kill people as they age; if one does not get you the next will. According to Dr Crimmins, increasing life expectancies much beyond 95 would require an approach that held the whole pack at bay, not just one particular predator.

Something which slowed ageing down across the board might fit the bill. And if it delays the onset of a range of diseases it might also go some way to reducing the disability that comes with age. An ongoing long-term study at Newcastle University has been looking at the health and ageing of nearly 1,000 subjects now aged 85. At this point they have an average of four to five health problems. None of them is free from disease. Most researchers in the field scoff at talk of escape velocities and immortality. But they take seriously the prospect of healthier 85 year olds and lifespans lengthened by a decade or so, and that is boon enough.

Indications of immortality

Before discovering whether anti-ageing drugs might be able to deliver such things, though, researchers need to solve a daunting regulatory conundrum. At the moment the agencies that allow drugs to be sold do not consider ageing *per se* to be an “indication” that merits therapy. It is, after all, something that happens to everyone, which makes it hard to think of as a disease in search of a cure, or even a condition in ►►

▶ need of treatment. Unless ageing is treated as an indication, anti-ageing drugs can't get regulatory approval. And there's little incentive to work on drugs you can't sell.

If regulators were to change their stance, though, the interest would be immense. A condition that affects everyone is as big a potential market as can be imagined. And there are hints that the stance may indeed be changing. Two existing drugs approved for other purposes—metformin, widely used and well tolerated as a treatment for diabetes, and rapamycin, which reduces the risk of organ transplants being rejected—look to some researchers as though they might have broad anti-ageing effects not unlike those claimed for CR. In 2014 a study of 90,000 elderly patients with type 2 diabetes found that those receiving metformin had higher survival rates than matched non-diabetic controls. Other work has shown its use is associated with a decreased risk of cancer.

Scientists at the Institute for Ageing Research at the Albert Einstein College of Medicine, in New York, want to mount a trial of metformin in elderly subjects to see whether it delays various maladies (and also death). If that turns out to be the case, it will go a long way to showing that there is a generalised ageing process that can be modulated with drugs. Nir Barzilai, one of the researchers involved, says an important reason to do the trial is to have an indication against which next-generation ageing drugs can be assessed by regulators.

This sort of interest seems to be triggering a change of tone at America's Food and Drug Administration over whether it might approve an anti-ageing drug. The regulator is thinking about when a broad, and so far unprecedented, claim of anti-ageing might be considered to be supported by the evidence; it is "looking forward to seeing this area of science evolve". In the dry language of a government agency these are encouraging words.

If an unregulated diet can do the trick, why does the world need drugs? Three reasons. One is that taking a few pills a day will be easier for most than subsisting on low-calorie muffins and salad. A second is that companies can make money making pills and will compete to create them. A third is that pills may work better than diets. Dr Barzilai, who is in the pill camp, points out that CR works less well in primates than other mammals, and that people with low body-mass indices, a natural condition for those restricting their calories, are in general more likely to die. Those who do well on CR, he says, are likely to be a subset benefiting from the right genetic make-up. His hope is that a range of targeted therapies might allow everyone to get the benefits.

If they do, it will be by inducing changes in metabolism. It has been known for 20 years that altering the gene *daf-2* in

roundworms slows their ageing and doubles their lifespans; another gene, *daf-16*, is now known to be required for this to work. Equivalent genes in humans are in charge of the cell-surface receptors for insulin and insulin-like growth factor 1, hormones with key metabolic roles. The human equivalent of *daf-2* seems to be turned on by CR. Very long-lived people have been found to share particular variants of the human version of *daf-16*.

Another effect of CR is that it deactivates mTOR, a protein that helps pass signals from growth hormones to the parts of the cell involved in protein synthesis. It plays a role in regulating the cell's metabolism, division and growth, and prevents the breakdown of damaged cells. When food is abundant mTOR stimulates cell division and growth.

Throwing the switch

These lines of research suggest that in the animals where CR works well it switches cells from a regime where they concentrate on growing to one where they concentrate on their own repair. In that second mode damage to cells accumulates more slowly, which means they age less. Drugs that seem to have an effect on ageing achieve some of the same shift. Metformin acts on a number of hormone receptors which are also affected by CR (see chart); rapamycin works on a pathway that gets its name from a protein that is the "target of rapamycin": mTOR. Reducing the function of mTOR extends life in yeast, worms and flies. In 2009, work in a number of laboratories showed that rapamycin can extend the lifespan of middle-aged mice by 14%.

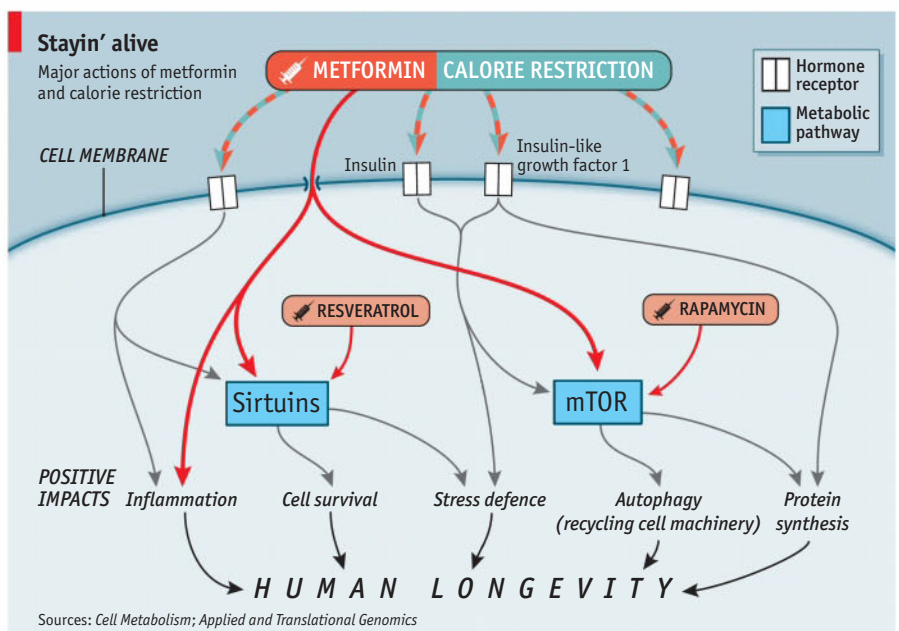
Alexander Zhavoronkov, the boss of In-silico Medicine, a longevity firm, says he is testing rapamycin on himself (self experimentation does not seem uncommon in

the field). But he warns it is necessary to have a significant knowledge of biomedicine to do so safely. The drug has serious side effects; rodents treated with it suffer from insulin resistance and it suppresses the immune system. That's good when preventing the rejection of organ transplants—the drug's current medical use—but not so good in otherwise healthy people. One idea is that low doses might preserve the drug's benefits while limiting its side-effects.

There are other drugs, though, that target the same pathway with fewer downsides. One of these, resveratrol, caused a great deal of excitement among longevity researchers a few years ago because it kept mice on rich diets youthful. A lot of the initial interest has waned since it was discovered to be less helpful in mice that are not overweight, but it is still being investigated as an Alzheimer's treatment.

David Sinclair of the Harvard Medical School, who was part of the initial enthusiasm, describes it as a "dirty" drug, in that it has a number of targets within the cell. Among them are a set of proteins known as sirtuins which appear to be activated by resveratrol. Dr Sinclair created a company, Sirtris Pharmaceuticals, to investigate the potential of drugs aimed at these targets. GSK, a British pharma company which bought Sirtris in 2008, continues this work, though to date it has not yielded as much as was once hoped.

Sirtuins may act as metabolic sensors, and a number are found exclusively in the mitochondria, the structures in cells that look after respiration and which are central to the evolving concept of cellular ageing. Thomas von Zglinicki of Newcastle University says ageing cells are characterised by mitochondrial damage and have difficulty recycling damaged or broken cell ma- ▶▶



chinery. They produce pro-inflammatory factors called cytokines which move neighbouring cells to senescence; chronic progressive inflammation of this sort drives various age-related diseases.

João Passos, also at Newcastle University, says cells from which mitochondria are removed start to look more like young cells and stop secreting cytokines. Other work has shown that killing off mitochondria can mimic some of the effects of drugs that activate mitochondrial renewal—such as rapamycin. Faster turnover of mitochondria seems to improve their functioning.

Data against death

Such discoveries in cell and molecular biology have perked up commercial interest in longevity. So too has data from the hundreds of thousands of human genome sequences. Dr Zavoronkov's Insilico Medicine, based in Stuttgart, Germany, is using machine learning on vast piles of published genomic data to work out the differences between the tissues of young and old people and to look at how patterns of gene expression evolve as people age. It then looks in drug databases for molecules that might block the effects of the genes it thinks matter.

The force to be reckoned with in this field, though, is Craig Venter, a pioneer in gene sequencing. In 2013 he founded Human Longevity Inc (HLI), based in San Diego. Like Insilico, HLI wants to sift through genomic data; but it does so on a vastly larger scale, generating the genomic data itself and matching them with details of physiology and appearance. Dr Venter hopes this will allow the company to unlock the genetics of longevity and predict how long people will live. Research at HLI has already found that some genetic variations are absent in older people, a finding that implies they might be tied to shorter lifespans. Companies such as Celgene and AstraZeneca that work in drug discovery have made deals to collaborate with HLI. Dr Venter says HLI may eventually move into the drug business itself.

For those who cannot wait for drugs, HLI has a high-end “wellness” service called the Health Nucleus. At prices starting from \$25,000 it will give a customer a constellation of cutting-edge tests, including a full sequence of both his genome and a battery of tests for the signs of cancer, Alzheimer's and heart disease. Lots of tests means lots of possibilities for “false-positive” results; but the affluent clients of Health Nucleus may worry less about follow-ups that reveal false alarms than other people do.

In 2013 Google (now Alphabet) started a venture called the California Life Company, or Calico, to take a “moonshot” approach to anti-ageing; the company has said it will invest up to \$750m in the venture. Calico is a drug-development com-

pany much more willing to talk about its world-leading scientists, such as Cynthia Kenyon, a worm biologist, and the track record of its boss, Arthur Levinson, who used to run Genentech, a biotech giant, than about what it is actually doing. But it has announced a series of collaborations, the most significant of which is a ten-year R&D deal with AbbVie, a pharma company based in Chicago, focused on cancers and degenerative nerve conditions.

Degeneration leads to thoughts of regeneration. Even the most enthusiastic adherents of slowing down ageing by means of diet or pharmacology have to admit that it will not keep people going forever. At best it might allow them to age as slowly as the slowest-ageing people do naturally. And that makes it unlikely, even at its most effective, to increase lifespans beyond 120, because that seems to be more or less the natural upper limit to a human lifespan. Improvements in medicine and welfare mean that there are many more people in their 90s and 100s round the world today than there used to be. The number of people in their 130s, though, remains stubbornly at zero.

To do something about this means not just slowing ageing but stopping or reversing it, either by causing bits of the body to rejuvenate themselves or by removing and replacing them. This is where stem cells come in. They play an important role in the repair and regeneration of tissue; they can be induced to differentiate into a range of specialised cells, and thus to replace cells that are worn out or used up. Regenerative therapies seek to supplement this repair using stem cells from elsewhere. They might be taken from frozen samples of placentas; they might be created from existing body cells.

Many stem-cell therapies are moving rapidly towards clinical trials under the rubric of “regenerative medicine”. Both Calico and HLI are active in the field. Research has shown that nerve cells grown from human embryonic stem cells and transplanted into rats with the equivalent of Parkinson's disease proliferate and start to release dopamine, which is what such rats and people lack. Roger Barker of the University of Cambridge recently treated a man with Parkinson's this way. ReNeuron, based in Bridgend in Wales, is in trials designed to discover the efficacy of stem cells as a treatment for disabilities brought on by stroke. Despite the risks of unregulated therapies, hundreds of clinics around the world are already rushing to offer “treatments” for the diseases of age. This is unsurprising. It is historically an area rich in hope, hype and quackery, and it will take some time for well-founded research to clean the stables—if, indeed, it can.

Another regenerative possibility flows from studies which find signs of rejuvenation in elderly animals exposed to the

blood of younger animals. Infusions of young people's blood plasma are being tried out on some Alzheimer's patients in California. A startup called Ambrosia, based in Monterey, recently began “trials” of such a therapy with healthy participants who pay \$8,000 to take part; critics say they are so lacking in controls that they are unlikely to generate any useful information. If particular genes are beneficial then gene therapy, or gene editing, could prove to be fertile ground; work to this end has begun in mice. And some won't wait. Elizabeth Parrish, the boss of a biotech company called BioViva, claims she has already given herself an anti-ageing gene therapy.

Beyond this horizon

The extent to which any of this technology will help will depend on how old those it is used on are when it comes into its own. The scope for radically changing the lifespan of a 65-year-old is much smaller than that of a 20-year-old, let alone an embryo. But the amount that is lost by getting things wrong goes up in exactly the same way.

The idea that radical biotechnology can lead to longer lifespans than that of Jeanne Calment, a French woman whose recorded lifespan of 122 years has never been bettered, seems at best a plausible speculation. To say—as Aubrey de Grey, a noted cheerleader for immortality, has done—that the first person to live to 1,000 has probably already been born seems utterly outlandish. But thinking through Calment's life might give you pause. When she was born, in 1875, the germ theory of disease was still a novelty and no one had ever uttered the word “gene”. When she died in 1997 the human genome was almost sequenced. All of modern medicine and psychiatry, barring general-purpose anaesthesia, was developed during her lifetime. If a little girl born today were to live as long—and why should she not?—she would see the world of 2138. The capabilities of medicine at that point will surely still be limited. But no one can guess what those limits will be. ■





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Hillary Clinton

Inevitable once more

KISSIMMEE, FLORIDA

The Democratic nominee is starting to look unbeatable. Thank Donald Trump

“**H**ERE she is!” shouted Bill Nelson, turning from the podium, with a sweep of his senatorial arm, to an empty walkway, where Hillary Clinton was supposed to be. The small crowd, gathered in an exhibition hall in Kissimmee, central Florida, on August 8th gamely cheered the empty stage, but with a hint of surprise and, when it remained empty, confusion. “I’m with her!” banners weakly fluttered—but where was she? By the time the Democratic nominee, wearing a bright orange trouser suit (which instantly recalled the “Hillary for Prison” badges for sale outside her Republican rival’s rallies), emerged and hotfooted it to the podium, the Floridian crowd was audibly running out of puff.

A visiting Martian might be surprised to learn, on the basis of Mrs Clinton’s rallies, that she is a strong favourite for the presidency. As *The Economist* went to press, she led Donald Trump by eight percentage points in an average of recent polls, by a similar margin in several important swing states, including Virginia and Pennsylvania, and her lead was growing. Groups that have not voted Democratic in decades, such as college-educated whites, are flocking to her. So are some Republicans, including a good few of the 50 Republican security gurus who denounced Mr Trump on August 8th. All are repelled by him, which

is no wonder. In a speech in North Carolina on August 9th Mr Trump appeared to ponder Mrs Clinton’s assassination: “If she gets to pick her judges, nothing you can do folks,” he goaded the crowd, “although the Second Amendment people—maybe there is, I don’t know.” Yet it is still striking how little Mrs Clinton, America’s probable next president, is loved.

The “enthusiasm” of her supporters is another measure on which she leads: 51% of Democrats says they are enthusiastic about the election, compared with 41% of Republicans. Yet the word does not seem to describe the feelings of all that many Clinton supporters: they are “respectful of” and “convinced by” her, but not gushing. In interviews with a score at Kissimmee, all said they admired her (though some had reservations) and were confident she would beat Mr Trump, whom they loathed. But most struggled to name a quality they especially liked in her. Some seemed surprised by the question.

“Her husband was one of the best presidents we’ve had,” offered Max, a dental assistant. “I just think she’s the best choice,” said Greg, a retired mechanic. Others worried about Mrs Clinton’s reputation for shadiness, exacerbated by the undying scandal over her furtive e-mail arrangements as secretary of state: “I was very dis-

appointed by her,” said Hallie, a retired civil servant. The strongest endorsements were for what Mrs Clinton represents, as a woman and, especially, as the anti-Trump candidate. “I was raised a Republican,” said Amanda, a student. “But I’m gay, I’m young, I’m a woman, how can I not vote for her?” “She isn’t a good candidate,” said Neil, a retired obstetrician, wearing a t-shirt stamped with a swastika bearing Mr Trump’s name. “But I can live with her.”

Dig into Mrs Clinton’s stellar polling figures, and there is worse than ambivalence. Almost 60% of voters say they are “dissatisfied” with both candidates; 56% of college-educated whites are “anxious” about the prospect of her as president; almost 70% of voters do not find her trustworthy. Perhaps this does not matter; voters like Mr Trump even less. Yet her unpopularity is at the least liable to make the next three months more nerve-racking, given the disaster a Trump victory would represent for America, than they might otherwise be. It is also a poor basis for a presidency.

How poor, may depend on quite what is behind Mrs Clinton’s struggle. She blames it on her awkwardness as a campaigner: “Through all these years of public service, the ‘service’ part has always come easier to me than the ‘public’ part,” she said in her convention speech last month. That was a bit disingenuous: had she been less slippery in her e-mail arrangements, she would be less mistrusted. Yet her clumsy political skills clearly do not help.

She is an amazingly poor orator, considering her long record and her easy charm in private, with a default shouting mode that would grate less if she would at least shout in the right places. “It’s so exciting to have this chance to talk to all of YOOOO!” ▶▶

▶ she thundered in Kissimmee. Having little flair for the big narrative, she can be similarly poor at convincing voters she understands and will act on their worries. Her response to almost any problem is to spout policy, which is admirably pragmatic, but, as in the economic plan of action she delivered in Kissimmee, can sound aloof. There is no quick fix to the stagnant wages, wrought by technological and other change, she referred to, and most voters know it. By describing the problem thoughtfully, including the brighter future that technology may well bring, she might nonetheless have provided reassurance. Instead, she harped back to the different world of her father's working life, half a century ago, then rattled off policies—infrastructure investment, vocational training and the like—that would not begin to go far enough to achieve the transformation she implausibly promises.

But there is a counter-case, rooted in the unusual difficulty of what she is attempting. Sure, Barack Obama and Bill Clinton were better campaigners than she is. Yet their big advantage was being young, novel and in a position to argue for an end to unpopular Republican rule. Mrs Clinton, an establishment veteran at a time of anti-establishment sentiment, has a much tougher sell to make. She is arguing for a rare third term for her party, which must be neither a continuation of Mr Obama's

terms, given Americans' widespread disgruntlement, nor a repudiation of them, given his popularity in her party. Not even her silver-tongued predecessors would have shone at that. In time, her candidacy may be judged less harshly.

The next three months should advertise some of her strengths. Her campaign is well-resourced—she has so far spent \$52m on television advertising, while Mr Trump has spent nothing—well-organised and, in the primaries, roused ambivalent voters effectively. Her party, unlike her opponent's, is united, for which she can also take credit, thanks to her careful negotiations with Bernie Sanders, her aggrieved Democratic rival. Above all, in Mr Trump, her candidacy has been granted the unifying principle it previously lacked.

It is a low bar; but being demonstrably sane, competent and able to refrain from publicly envisaging her opponent's murder is now at the heart of Mrs Clinton's sales pitch. Almost all her best lines and biggest applause in Kissimmee referred to her rival; this election, she said, is “a choice between two different views of who we are as Americans”. Indeed it is, and the polls suggest that the inclusiveness and moderation that inform her vision, whatever her character flaws, her fudgy policies and the anti-politics mood, are shining through. In this election, those qualities alone are worth cheering. ■

Merit scholarships

TOPSy-turvy

NEW ORLEANS

How a programme meant to help poor blacks has roared out of control

TWENTY-EIGHT years ago, in a forgotten corner of New Orleans, a rich oilman, Patrick Taylor, promised a class of 13-14-year-olds that he would pay their college tuition fees as long as they could keep a B average through high school. The idea caught on, and soon expanded to cover poor pupils across Louisiana.

Eventually the private funding was replaced with taxpayer dollars. Then, in the late 1990s, the means-testing was dropped too. Everyone could now get the scholarships, called Taylor Opportunity Programme for Scholars, or TOPS; and so a behemoth was born. Similar programmes, such as HOPE in Georgia, have sprung up in more than a dozen states, mostly in the South, to try to stanch the “brain drain” these states have historically suffered. Everywhere they have proved enormously popular—and expensive. In Louisiana, the cost has doubled in a decade; and TOPS has become the very definition of a middle-class entitlement.

Like many other states, Louisiana has coped with lean budgets in recent years in part by scaling back its funding of universities. Colleges have been allowed to make up the difference by raising tuition fees—thus increasing the cost of the TOPS programme. This summer, for the first time, the state legislature failed to come up with enough money to finance TOPS fully. In the coming academic year, scholarship recipients will have to contribute about \$2,000 of their own money for college. This has sparked fury among pupils and parents.

Louisiana's decision to cut back its direct support of universities while pouring more and more money into merit scholarships amounted to a huge, if mostly unremarked, shift in policy. In essence, the state decided to subsidise individuals rather than institutions. In 2007, for instance, the state sent about \$7 to universities for every dollar that went to the scholarships. Last year, it sent about \$1.49 to the campuses for each dollar that went into TOPS.

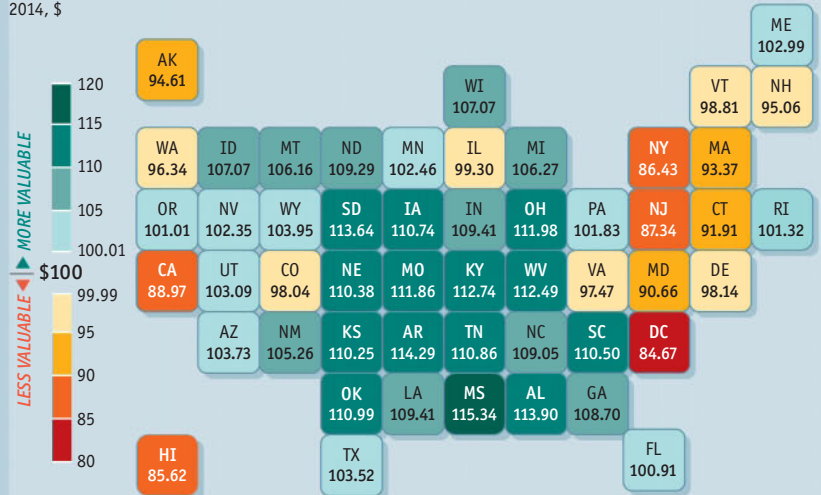
There is some logic to this. TOPS has allowed thousands of deserving children in Louisiana to earn a college degree and emerge with little or no debt. And although data are few, it is likely that the scholarships have kept more of them in the Pelican State after graduation.

But there are downsides, too. As designed, TOPS rewards mediocrity. To qualify, pupils need only a 2.5 grade-point average—gentlemen's Cs, in other words—and ▶▶

More bang for your buck

“It's all about the Benjamins,” rapped Puff Daddy, using slang for the \$100 bill. But the real value of a “Benjamin” depends on where you live. The Tax Foundation, a think-tank, looked at federal data to determine the cost of buying goods in each state relative to the national average. A \$100 bill goes furthest in Mississippi, where it is worth \$115.34, giving the state 36% more purchasing power than Washington, DC, where \$100 is worth only \$84.67. In states with high nominal incomes, prices are usually higher—with exceptions. North Dakota, for instance, has high (fracking-fuelled) income without high prices; Hawaii has low income and high prices. But better weather.

Relative value of goods that \$100 can buy in each US state compared with the national average 2014, \$



Source: Tax Foundation

▶ an average mark of 20 in the national standardised test, or ACT. (Most states have more rigorous standards.) Meanwhile, white high-school graduates in Louisiana are almost three times as likely to qualify as their black counterparts, mainly because whites fare slightly better on standardised tests. Yet it was originally blacks—who are still far more likely than whites to be poor and attend rotten schools—who were meant to benefit most from TOPS.

If Louisiana really hopes to keep its academic superstars, it should offer a more generous incentive to truly excellent pupils, as many states now do. Currently, the best students get a small stipend in addition to help with tuition fees, but it is hardly a game-changer. It could also raise the bar for scholarships, requiring at least a 3.0 grade-point average—as most states do. The money saved could then be injected into need-based aid. Up to now, that has been mostly an afterthought: in the most recent year, less than a dollar went into need-based aid for every \$10 put into TOPS.

Walter Kimbrough, the president of Dillard University, a historically black private college in New Orleans, is pressing hard for such reforms—and for a return of the means-test. The programme, he insists, must be focused on those who really need it: as Mr Taylor intended back in 1988. ■

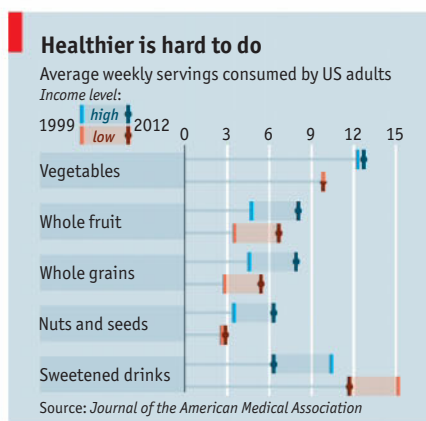
Dietary inequality

Bitter fruits

As incomes become more unequal, so too may the rate of healthy eating

IN HIS book “In Defence of Food: An Eater’s Manifesto”, Michael Pollan urged people to “Eat food. Not too much. Mostly plants.” Although a paltry 2.7% of Americans have a “healthy lifestyle”, according to the Mayo Clinic, their diets are improving. A recent study by researchers at the Tufts University Friedman School of Nutrition Science and Policy, tracking changes in eating habits between 1999 and 2012, suggests that Americans are nibbling more whole fruits, nuts and seeds, and gulping fewer sugary drinks, than they were in the fairly recent past. But the study also revealed that the gap between the diets of rich and poor seems to be widening.

That rich Americans eat more healthily than poor ones is not a new revelation. Low-income places are less likely to have full-service grocery stores or farmers’ markets, let alone organic stuff. Poor people often have no cars, so they have to shop at the sort of convenience stores that offer crisps and doughnuts rather than fresh produce. And fruit and vegetables are



heavy to lug home. In Newark, New Jersey, Renée Fuller, an elderly woman who walks with a stick, has to go to the next town, West Orange, to shop. “You want a banana, you have to travel. There’s not many supermarkets. There’s nothing convenient...You have bodegas and corner stores that sell cold cuts and sandwiches, but not many vegetables...I get my food stamps once a month. I can’t stock up on fruits for the whole month.” Low-income urban areas that are at least a mile from the nearest supermarket, and rural areas that are at least ten miles from any grocery store, are considered “food deserts”. In 2009 the Department of Agriculture calculated that 11.5m people, or 4.1% of America’s population, live in such deserts.

If fresh food becomes more available, though, it will not necessarily get eaten. In Morrisania, a deprived neighbourhood in New York’s unhealthiest county (and, until recently, a food desert), the launch of a supermarket did not markedly change eating habits. Kelly Brownell, the dean of the Sanford School of Public Policy at Duke University, says that makes sense: “Supermarkets offer more choice of healthy foods, but also ice creams and salty snacks.” In a survey conducted in 2012, over half of Americans claimed ignorance: working out their income tax, they said, was easier than knowing how to eat healthily.



All you can eat, and shouldn't

Employees at City Seed, a food-based charity based in New Haven, Connecticut, agree that availability is only part of the puzzle. By hosting farmers’ markets that accept Supplemental Nutrition Assistance Programme benefits, formerly known as food stamps, the group’s founders wanted to improve access to fresh foods where it “was easy enough to find pizza, but next to impossible to locate a fresh tomato”. Nicole Berube, the executive director of City Seed, not only hopes to bring healthy food closer, but also to build on the skills of people who know how to choose it and cook it—skills that exist even in deprived places.

Rising income inequality may also help to explain why American diets are becoming less equal. Adam Drewnowski, a professor of epidemiology at the University of Washington’s School of Public Health, estimates that the difference between eating healthily and poorly in America is \$1,500 a day. For a family of five, that is over \$2,700 a year. Dariush Mozaffarian, a doctor and one of the authors of the eating-habits study, thinks time constraints are even more important. “Low-income individuals might have to work two jobs to support their families, or make long commutes. Such commitments might get in the way of cooking healthy meals.”

Dr Mozaffarian believes it is crucial to change cultural attitudes towards nutrition. The tobacco industry offers a useful example. As smoking has become less socially acceptable, smoking rates have declined. If people could come to view inhaling cheesecake or Big Macs in the same way, Americans’ waistlines would shrink along with their health-care bills.

Over one-third of American adults are not just overweight, but obese. Past research suggests obesity and the preventable chronic diseases that go with it cost the country between \$147 billion and \$210 billion a year. Dr Mozaffarian believes the economic toll is even higher, and yet nutrition is not tracked in most electronic health records. “This should be a top national priority,” he says; “up there with terrorism.” ■



America's foreign bases

Go home, Yankee

The presence of American troops on foreign soil is growing more controversial

AT THE end of July the United States Army announced plans to hand back 15 square miles (40 square km) of land on Okinawa to the Japanese government. This will be the biggest land return in the island, home to almost 30,000 American troops, since the United States' formal occupation ended in 1972. The decision follows the rape and murder of a local woman and big anti-American protests in June.

Opposition to American bases has increased recently in Turkey, too. In the wake of July's failed military coup, many Turks have accused American soldiers on the Incirlik air base of being among the plotters. Three days after the coup Yusuf Kaplan, a pro-government journalist, tweeted: "USA, You know you are the biggest terrorist! We Know All the Coups are your work! We are not stupid! #procoupUSAgohome."

America has more overseas military bases than any other nation: nearly 800 spread through more than 70 countries. Of the roughly 150,000 troops stationed abroad, 49,000 are in Japan, 28,000 in South Korea and 38,000 in Germany; the total cost to the American government, with war zones excluded, is up to \$100 billion a year. For much of the 20th century, overseas military facilities were justified as a bulwark against the Soviet threat; as that faded, other reasons to stay soon emerged. Since the 1990s, wars in the Middle East have meant that countries such as Bahrain

and Turkey have gained strategic importance. (American strikes on Islamic State (IS) are launched from the Incirlik base.) More recently, China's growing naval power has prompted America to reinforce its presence in the Pacific.

Home support for foreign bases peaked a year after the September 11th attacks, when 48% of Americans thought projecting military might was the best way to reduce the terrorist threat. Today, although about the same number still believe that, 47% think it creates hatred and leads to more terrorism. (The divide falls along partisan lines, with 70% of Republicans supporting military force, and 65% of Democrats opposing.) When it comes to overseas bases themselves, though, Americans, for the most part, are "completely unaware" of them, says David Vine, associate professor of anthropology at the American University and author of "Base Nation: How US Military Bases Abroad Harm America and the World". If they consider them at all, he says, "most people would think the US military is good so US bases, wherever they are, must be a good thing". During the presidential primaries Donald Trump, the Republican nominee, questioned the need for, and the expense of, so many overseas bases. No other candidate did.

False assumptions about the costs of funding America's overseas military presence could, in part, explain the public's am-

bivalence. According to Mr Vine, even "so-called experts within the military" believe the bases do not cost America much because foreign governments foot a large part of the bill. In reality, he explains (and according to an estimate by the RAND Corporation in 2013), keeping members of the armed forces overseas, rather than within the United States, costs between \$10,000 and \$40,000 extra for every man and woman involved.

Within the armed forces, an overseas posting is still seen by many as a perk of the job and one of the main reasons to sign up in the first place. "For maybe 75% of the people I talk to, travelling is the biggest thing that gets them," says Staff Sergeant Marco Lopez, a recruiter based in Los Angeles. Another recruiter, Staff Sergeant Andrew Murray, based in Tennessee, explains that a lot of new recruits "are looking to get out of small-town Tennessee; when I tell them about my experience in Europe, they just light up." Europe, particularly Germany, seems to be one of the most popular destinations for army recruits. The sergeants found Germans particularly friendly and welcoming; Europe's rich history attracts some, while Sergeant Murray enjoyed being able to visit "a different city every weekend, partying and sightseeing".

Before going overseas, American troops are given a detailed briefing on what to expect and how to behave. Sergeant Murray says he was warned that Germans are not good at queuing, and that it was a good idea "to tone down the patriotism"; Sergeant Lopez, when stationed in Seoul, was told to avoid areas known for prostitution. Not all those enlisted take the briefings on board, as the recent events in Okinawa have made clear. Uncle Sam's pay-cheques feed the economies of areas with army bases, but mostly through the soldiers' patronage of night clubs and bars—which can lead to trouble.

In the past 15-20 years the Pentagon has taken steps to improve relations between its overseas outposts and local communities. Most of these have involved trying to rein in wayward soldiers. In 2006 an anti-prostitution charge was added to the United States Military Code of Justice (to the outrage of some American troops stationed in Germany, where prostitution is legal). The Department of Defence also reported an increase in the number of sexual-assault cases taken to courts martial, from 42% in 2009 to 68% in 2012. But Japan remains an outlier: within navy and marine-corps units stationed there, only 24% of those charged with sexual offences were court-martialled in 2012, the latest date for which data are available.

The United States has 85 military facilities scattered across Japan—a legacy of American occupation after the second world war. Three-quarters of the territory occupied is on the string of islands making ▶▶

up Okinawa, along with more than half of the 49,000 military personnel. Okinawans resent the heavy burden they have shouldered, as well as the American presence itself—particularly the brothels. These were deliberately set up for United States troops and remained legal on the island until 1972, 14 years after they were banned in the rest of the country. The protests in June over the most recent rape victim were the latest in a long line of anti-American demonstrations. The largest came in 1995, when 85,000 Okinawans took to the streets following the gang-rape of a 12-year-old girl by three American soldiers.

In the past, the presence of American troops has also sparked more general protests. During the cold war West Germany played host to more American military facilities than any other country, up to 900 by some definitions, incorporating schools and hospitals as well as sports complexes and shopping centres. Local communities protested against the noise and disruption from constant military manoeuvres. Opposition reached its peak at the end of the 1980s, fuelled further by growing anti-nuclear sentiment. Leftist groups, the Red Army Faction and the Revolutionary Cells also launched violent attacks against American army headquarters and kidnapped military personnel, objecting to the mere physical presence of America in their country.

Miss you, miss you not

Almost 30 years later, the withdrawal of American troops from Germany is well under way: in 2010 the army announced it was handing over 23 sites to the German government. “We don’t miss them, but we weren’t wanting them to leave either,” says Hans Schnabel, a business-development manager in charge of converting old army bases in the Bavarian city of Schweinfurt, where up to 12,000 soldiers and their families were stationed before it closed in September 2014. After the cold war resentment in Germany towards the bases, and American forces in general, became more subdued; recent protests, such as one in June outside the Ramstein base against alleged support for drone operations, are fewer and quieter. At Schweinfurt, says Mr Schnabel, local people even think of the base with nostalgia: they are building an “American house” to remember those stationed there, and the streets around the new housing development (once the barracks) will be given names such as California Strasse and Ohio Strasse.

In contrast, America’s military presence in Turkey, as in Okinawa, is still a focus of thriving anti-Americanism today. The relationship began well enough: in 1946, when the USS *Missouri* sailed into Istanbul, the show of American might was warmly welcomed. It foreshadowed Turkey’s accession to NATO six years later and the sta-



tioning of American troops across the country. American enclaves in Ankara, and sailors’ weekend jollies in Izmir and Istanbul, contributed to a change in public opinion. By the end of the 1960s “Go home Yankee” signs greeted disembarking American sailors and soldiers. In the 1970s, as in Germany, leftist revolutionary groups resorted to increasingly extreme tactics in their attempts to “liberate” Turkey from American imperialism: the Turkish Revolutionary Army abducted four American airmen in March 1971 and three NATO engineers the next year.

Since then, America’s military presence in Turkey—though far less substantial than in Japan—has been seen by many as an unwanted encroachment on Turkey’s independence. In 2003 Turks protested against the war in Iraq and proposals for America to station military personnel at the Mersin naval base. When the USS *Stout* docked in Bodrum in 2011, members of the Turkish Communist Party stood on the shore chanting anti-American slogans. Three years later, in two separate events, members of the Turkish Youth Union targeted American sailors and NATO soldiers in Istanbul, putting white sacks over their heads and throwing red paint over them. A similar incident occurred at Incirlik air base in April this year. Even a visit by President Barack Obama, during his trip to Turkey in 2009, drew crowds of angry protesters shouting “Yankee go home” and “Get out of our country.”

The latest attacks against America’s military presence in Turkey, however, mark a shift. Since the Syrian war broke out, the United States has increasingly used the Incirlik base to support the Kurdish People’s Protection Units (YPG), implying that it might also support an autonomous Kurdish state carved out of Turkey. America and its armed forces have long featured in conspiracy theories, too, particularly those involving Fethullah Gulen, an Islamic cleric living in self-imposed exile in the United States. The recent attempted coup against President Recep Tayyip Erdogan is proof to many Turks of a Gulenist-American alliance, and of the subversive influence of American armed forces in the country. The closure of Incirlik air base for a short time immediately after the coup added fuel to

the conspiracy theories. Mr Erdogan himself seems to be using America as a scapegoat, intentionally ramping up hostility towards the personnel stationed there.

The strategic importance of Incirlik for America’s campaign against Isis means that keeping American combat boots on Turkish soil is more in America’s interests than Turkey’s. But given that anti-Americanism in Turkey is one of the few sentiments uniting an increasingly undemocratic and destabilised country, American troops will have to tread carefully: they are likely to become bigger, not smaller, targets as internal tensions mount.

In many other countries both sides, despite sporadic differences, have an equal interest in Americans staying. After the protests in 1995 in Okinawa, America and Japan agreed to close Futenma, the marine air base in the overcrowded city of Ginowan, and to build a new facility in Henoko, a fishing village. The plan failed to appease locals—who re-elected anti-base politicians such as Takeshi Onaga, Okinawa’s governor, in June’s local elections—but Shinzo Abe, Japan’s prime minister, is pressing ahead with it anyway.

He has particular reason to try to smooth tensions between the two sides. North Korea’s flaunting of its nuclear weapons and China’s aggression in the South China Sea mean his plans for strengthening Japan’s military defences must go ahead, and the United States’ armed forces are an essential part of this. Some 47% of Americans would agree with Mr Abe: they are in favour of extending America’s military presence in Asia to counter Chinese power. But 43% are opposed. America, despite what its enemies sometimes suppose, is never really thrilled to be the world’s policeman—especially if the world proves ungrateful. ■



Happier days in Okinawa

Lexington | Dollars in the wind

Galloping off in all directions with taxpayers' money



THERE is more than one way to achieve dreadful public policies. Committees of bureaucrats have crafted real stinkers over the years. Other duff laws are the work of deep-pocketed special interests. But to create the worst government programmes—schemes that combine brow-furrowing folly with gasp-inducing expense—few methods are as sure as inviting Congress to spend the money of future taxpayers, in order to pander to public sentiment today.

For a case in point, consider the Wild Horse and Burro Programme of the Bureau of Land Management (BLM). The BLM, a federal agency which manages more than 245m acres of public land, is a whipping-boy for the environmental left and the anti-government right alike. But when it comes to the mismanagement of wild horses, the real villain is Congress. The BLM runs 177 “herd-management areas” across ten states. The animals are in truth feral, not wild—a few can be traced back to horses brought to the Americas by the Spanish, but most are descended from ranch stock or unwanted animals set loose during the 20th century.

Lexington recently visited a herd in the McCullough Peaks of Wyoming—100,000 acres of desert badlands softened by pale, scented sagebrush, and cut through by canyons of pink-striped rock. To keep the herd’s population constant, a BLM officer, Tricia Hatle, injects between 50 and 60 wild mares each year with darts containing PZP, a contraceptive. This involves stalking the herds with a fearsome-looking gas-powered dart gun, capable of hitting a horse from 40 yards. Ms Hatle, an efficient sort, finished her darting in 18 days this year, down from several months a few years ago. The cost is \$150 per horse, per year.

That sounds reasonable—except that the McCullough Peaks herd comprises just 152 animals, out of 67,000 wild horses that roam public rangelands. The McCullough Peaks animals are also among the most accessible in the country, feeding and drinking near dirt roads open to the public. (Indeed, as Ms Hatle demonstrates her dart-gun, a retired baby-boomer in a low-slung sports car growls into view, asking where the horses are; the tourist is politely directed back to a tarmac road before he has to be towed out of a mud-pool.) Other herds roam across treeless tracts of states such as Nevada and would see agents from miles away. They would run long before they could be darted.

Feral horses were once herded cruelly with airplanes or poisoned to stop them competing for food. But in 1959 a law promoted by a campaigner, Velma Bronn Johnston, also known as “Wild Horse Annie”, ended those practices. It was followed by the Wild and Free-Roaming Horses and Burros Act of 1971, which ordered the animals protected as “living symbols of the historic and pioneer spirit of the West”. Yet at the same time Congress told the BLM to keep public rangelands open for cattle-grazing and other uses, leaving limited room for feral horses.

Bowing to public opinion, Congress has also shut down horse slaughterhouses in America. In 2015 a bipartisan group of members further tried to ban the export of horses for meat (*steak de cheval* is a delicacy in France). More cheerfully, as many as 8,000 wild horses used to be adopted out of BLM herds each year. But there is an oversupply of domestic horses—in part because of the closed slaughterhouses, and partly because rural folk are turning to all-terrain vehicles. Today the BLM struggles to find adoptive homes for 2,500 animals. Meanwhile, the National Academy of Sciences (NAS) estimates that the nationwide wild-horse population grows by 15-20% a year.

In addition to the 67,000 horses roaming free, the BLM has moved 46,000 animals to corrals and to what the bureau’s director, Neil Kornze, calls “gorgeous green pastures in the Midwest”. Horses live longer on those rented pastures. Over the next 40 years, Mr Kornze calculates that those verdant retirement homes are “a billion-dollar commitment on behalf of the American public, in addition to the billion-dollar cost of horses on the range”. The bureau’s entire annual budget is \$1.2 billion, of which over \$80m is now spent managing wild horses—double the amount spent seven years ago.

The BLM is pinning its hopes on research into new contraceptives, as well as into spaying and neutering. The bureau also wants Congress to make it easier to transfer wild horses to public agencies, such as the US Border Patrol. But the challenge may be larger than any technical fix. Historically, horses were seen as livestock, explains Mr Kornze. They are now “trending more into the pet category”.

Hipsters against culling

Last year a group of mostly western senators and members of Congress asked the BLM to outline different scenarios for bringing wild-horse numbers under control. Bluntly, none looks sustainable. In one, more than 160,000 animals would be added to BLM off-range corrals and pastures, for a 40-year cost of \$4.6 billion. Another involves adding 15,000 horses to corrals and injecting up to 27,000 fertile mares a year with PZP.

Senator John Barrasso of Wyoming, a Republican, says the BLM is between a “rock and a hard place”. The senator, a surgeon by background, sees no solution which does not involve some culling of wild horses. But public sentiment makes that unthinkable for most members of Congress, notably those representing urban and suburban areas. Several animal-rights groups even oppose transfers to pastures, arguing that the BLM should instead pay ranchers to move their cattle, freeing up vast new areas of the West for horses. Meanwhile, the wild-horse population is on course to double every four years (the NAS found little evidence that wolves or mountain lions keep herds in check). It is a revealing mess. Ask Congress to manage a few hundred thousand photogenic mustangs, and they try to spend their way to popularity. Small wonder welfare for humans is beyond reform. ■



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It's cold outside

BUENOS AIRES

A battle over utility bills is Mauricio Macri's first big crisis

THE most populous parts of Argentina are stifling in summer and bone-chilling in winter. The Kirchner family, which ruled for a dozen years until 2015, kept the cost of comfort low. An earlier government had fixed the price of electricity and natural gas in 2002 to help the economy out of a slump; the Kirchners barely raised it. As a result, Argentines pay a fraction of what their neighbours do for energy (see chart).

But they have paid in other ways. Energy subsidies jumped from 1.5% of government spending in 2005 to 12.3% in 2014. Partly because of such largesse, the budget deficit was a worrying 5.4% of GDP last year. Because energy is cheap, consumers use it with abandon; utilities lack cash for investment. Summer blackouts can last for hours. Mauricio Macri, who succeeded Cristina Fernández de Kirchner as president in December, said the energy crisis was the most complex of the "many bombs" she had left for him. Defusing it is proving to be perilous.

Soon after Mr Macri took office the energy minister, Juan José Aranguren, said he would chop the \$16 billion subsidy bill in half. Gas tariffs would quadruple for most consumers; those for electricity would increase sixfold. The higher bills landed in consumers' post boxes in June, during Argentina's coldest autumn in 60 years. A backlash followed. Pot-banging protests, called *ruidazos*, took place across the country on August 4th. A few days later thou-

sands of pot-bangers marched to the Casa Rosada, the presidential palace. Two courts have blocked the tariff rises. The final decision now rests with the supreme court.

The government cannot afford to lose. The price increases are a vital part of Mr Macri's plan to restore confidence in an economy undermined by years of reckless spending, self-defeating price and regulatory controls, and economic nationalism. He began his presidency by allowing the peso to devalue, removing taxes on food exports and striking a deal with holders of debt on which Argentina had defaulted.

Unsurprisingly, the remedy has been painful. The peso's drop pushed the inflation rate to more than 30% even before utility bills went up. Growth, private employment and manufacturing have fallen since

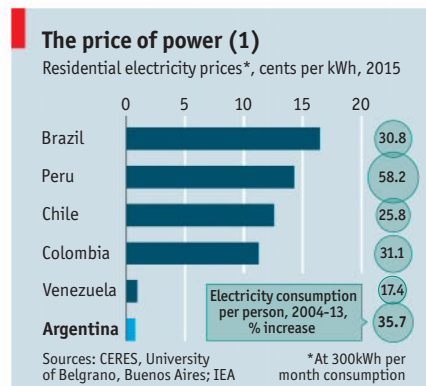
Mr Macri came to office. The IMF expects the economy to shrink by 1.5% this year. Argentina's deal with bondholders has yet to trigger the surge in foreign investment that the president promised would follow.

The government's clumsy handling of the price rises made the backlash worse. Alfonso Prat-Gay, the finance minister, airily dismissed them as "the cost of two pizzas". Mr Macri upbraided energy gluttons. "If you're in a t-shirt and bare feet around the house, you're using too much," he lectured. On Twitter, indignant Argentines posted videos of themselves listening to his speech dressed for Arctic conditions.

The government has tried to placate voters without abandoning its policies. "We got it wrong," admitted the interior minister, Rogelio Frigerio. A chastened president installed a solar-powered hot-water tank on the roof of the Quinta de Olivos, his official residence. "I am on a campaign to save energy," he joked during a visit to Casa Rosada by the Mexican president, Enrique Peña Nieto. "If you're cold, now you know why." On June 7th the government said it would cap the rise in gas prices and increase the amount of electricity sold at concessionary rates to small consumers in some provinces.

Mr Macri has reservoirs of political strength and popular goodwill to draw on. Though Argentines are angry, most still blame the Kirchners for their hardship. Allegations of corruption have enfeebled Ms Fernández as a political force. A new generation of politicians is competing to become the next presidential candidate of her Peronist party, weakening its ability to provide opposition to the government.

But Mr Macri's honeymoon is coming to an end (see chart, next page). With legislative elections due in October 2017, "the government needs to show some economic results in the first quarter of next



The price of power (2)

President Mauricio Macri's approval rating, %
Argentina



Source: Management & Fit consultants

► year,” argues Juan Cruz Díaz of Cefeidas Group, an advisory firm. The IMF thinks the economy will rebound in 2017; it forecasts growth of 2.8%.

The row over tariffs could slow the recovery. The courts' injunction against the price increase has shaken foreign investors' confidence in the legal system. No one is sure whether the supreme court will reverse it. Two of its five judges were recently appointed (by Mr Macri), which makes the decision hard to predict, says Mr Díaz. Until it acts, firms will continue to face the threat of output-disrupting power cuts.

Mr Macri has little choice but to hope that the supreme court rules in his favour, persist with price rises and pay the political cost. “To find tariffs both attractive enough for investment and acceptable to society—without impacting inflation—is impossible in the short term,” says Carlos Marcelo Belloni of IAE Business School in Buenos Aires. Like chilly consumers, Mr Macri is waiting for balmy weather. ■

Canada's Senate and Supreme Court

Look to the rainbow

OTTAWA

Justin Trudeau is shaking up two constitutional bodies

A BOOK about Canada's Senate published in 1984 was called “Survival of the Fattest”. The chamber's record of cronyism, indolence and scandal since then has not improved its reputation. “Patronage Heaven” should simply be abolished, many Canadians think. No one says that about the Supreme Court, a far more respected body. But both would benefit from a shake-up. Or so believes Canada's newish prime minister, Justin Trudeau.

He wants to bring the two institutions closer to ordinary people, and to reduce (a bit) the prime minister's almost limitless power to decide who may serve on them. His reforms are meant to fulfil his campaign promise to make government more representative and accountable. But they carry risks for his Liberal government.

Loosely modelled on Britain's House of Lords, the Senate can amend bills passed by the House of Commons, prompting negotiations between the two chambers. If these fail, the bill dies. In practice, the Senate rarely acts as a check on government. In June it voted to expand the range of patients who would benefit from the government's bill to allow doctor-assisted death. When the Commons refused to endorse the change, the Senate characteristically backed down.

Senate appointments became a way for prime ministers to reward loyalists with “taskless thanks”. A recent expenses-claims scandal compounded the chamber's reputation for fecklessness. The Supreme Court blocked a plan by Stephen Harper, Mr Trudeau's predecessor, to make it an elected body. He then refused to appoint any senators during his final two-and-a-half years in office.

Under Mr Trudeau's “non-partisan merit-based process”, would-be senators nominate themselves. Anyone who meets basic criteria (citizens aged 30-75 who own property in the province they would represent) is eligible. An independent committee will present a shortlist of candidates to Mr Trudeau; it will favour women, indigenous Canadians and other minorities, especially if they are bilingual. Among those who applied for the 20 vacant seats this month were community activists and a hot-dog vendor from Ottawa.

In a test run of the new system this year, Mr Trudeau chose seven senators from a slate of candidates put forward by civic groups. Canadians applauded the new intake, which included a former Paralympic athlete, an editorial writer and an indigenous leader.

The government has tweaked its anti-insider approach for the Supreme Court. Gone are the days of governments choosing justices “through a secretive backroom process”, Mr Trudeau promised in an op-ed article. Again, he will choose from a shortlist drawn up by a committee of worthies. Legislators can question but not vote on the appointee; only bilingual lawyers and judges need apply. Diversity matters on the court, too. Mr Trudeau might appoint a woman to fill the seat opened by the retirement of Justice Thomas Cromwell, giving the court a female majority. He could pick the first indigenous justice.

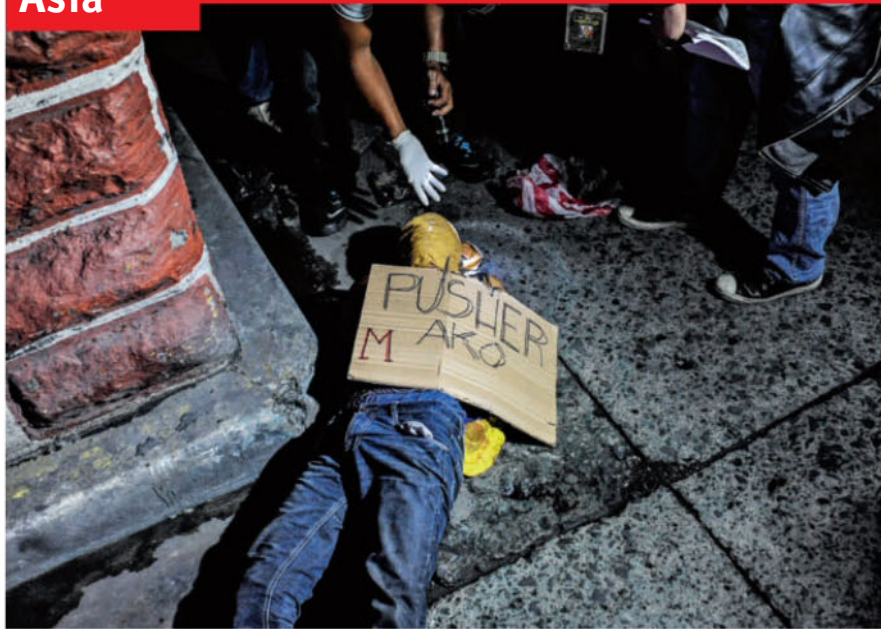
But there are snags. Mr Trudeau's keenness on ethnic variety clashes with the priority traditionally given to diversity based on region. By law, three of the Supreme Court's nine justices must be from Quebec. By custom, the others are drawn from around the rest of the country: three from Ontario, two from western Canada and one from the four Atlantic provinces. It will be hard to fill Mr Cromwell's Atlantic seat with someone who ticks Mr Trudeau's diversity boxes. The province of Newfoundland and Labrador, which has never sent a judge to the court, is especially worried. Mr Trudeau is treating Atlantic Canada “like a backwater”, complained one MP.

In the Senate, where regional diversity is assured, the risk is that a less partisan chamber will be a more assertive one. Under Mr Trudeau's plan, the Senate will have a non-party majority for the first time. The new senators may take their independence seriously. If so, he may rue the day he reformed Patronage Heaven. ■



Rio's Olympics

The ceremony that opened the Olympic games at Rio de Janeiro's Maracanã stadium on August 5th cost a fraction of what London spent four years ago. But ingenuity and style made up for it. The film directors who staged the show conjured up a rainforest, a favela and an animated city in a celebration of Brazil's hybrid culture. Brazilians are depressed about an economic slump, the impeachment of their president and a huge corruption scandal. Despite glitches at the games, the Olympics are cheering Brazilians up.



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Philippine politics

From plan to execution

MANILA

The new president keeps his most brutal campaign promise

A YOUNG man from a poor district of Manila volunteered with a local anti-crime group and was working towards his second degree. The student—call him Joshua—lived with his sister and her husband. After she had a child their small house was cramped, so he was staying with a friend. One night in July, the police raided the friend's house. They claim that Joshua, his friend and another man were armed and started a gunfight.

Witnesses—three young women also staying at the house, whom police escorted out—say that Joshua and the other guest were sleeping, and the tenant (who allegedly belonged to a gang of petty thieves) had surrendered. He was pleading with the police to leave Joshua and the other friend alone; they had done nothing wrong. The witnesses also claim the police trained their guns on any neighbours trying to see what was happening and then kicked Joshua awake. He immediately surrendered. Shots rang out. All three young men were killed.

When a local NGO asked for CCTV footage that would have shown the raid, they were told the cameras had malfunctioned. The chairman of the *barangay*, or neighbourhood, said he knew nothing about the raid and was on holiday that night.

Such is life in the Philippines under President Rodrigo Duterte. During his 22 years as mayor of the southern city of Davao, human-rights groups linked him with

vigilante squads who killed suspected criminals there. He treated the accusations with pride. As a presidential candidate, he vowed to stamp out crime within six months of taking office, even if it meant he had to slaughter 100,000 suspected criminals. On the day he took office, he told police officers that if they killed 1,000 people while doing their duty, he would protect them. Many assumed his tough talk was campaign bluster. They were wrong.

Extrajudicial killings—of environmental activists, journalists, ordinary citizens who challenge politically powerful clans and others—have long been a fact of life in the Philippines. Under Mr Duterte, people suspected of involvement in the drug trade have now come under fire. Between May

10th, the day after Mr Duterte won the presidency, and August 5th, ABS-CBN, a Philippine broadcaster, estimates that 943 drug suspects have been killed, most of them by the police, some by “unknown assailants”. Many were suspected of being drug dealers, but users have also been targeted: according to the *Inquirer*, a newspaper keeping a “kill list” of the casualties in the drug war (with about 600 names), one woman was found dead with a sign around her neck saying that she was “a drug addict, pickpocket and pest to society”.

Because suspects never face trial, the evidence against them remains largely unknown. According to one human-rights worker, police present *barangay* officials with a list of drug suspects. The officials then send the suspects a notice identifying them as such and ordering them to turn themselves in at the *barangay* office. There they receive a warning: reform or else you will be arrested or killed. Once they promise to change they are given waivers—sometimes in English, which few poor Filipinos can read—and are released.

Activists say at least 125,000 people have voluntarily surrendered so far (others put the number much higher). But Mr Duterte estimates that 3m-4m Filipinos are drug addicts. According to Nicanor Silanga, a policeman in Payatas, a poor, sprawling *barangay* in Quezon City, the police “expect all of them to surrender”.

America, the UN and the Catholic church have expressed concern over the extrajudicial killings, but Mr Duterte's standing among ordinary Filipinos remains high. A human-rights worker calls him “our most popular president since Cory Aquino” (the worker requested anonymity, citing increased security concerns since Mr Duterte took office).

Theresa Padaluga, an investigator in Commonwealth, the biggest *barangay* in ▶▶

Kill zone

Homicides per 100,000 population, 2014



▶ Manila, says that around 20 drug suspects have been killed there since Mr Duterte took over. She proudly notes that her jails now house no drug users—only drinkers and those accused of domestic violence. Geraldine, a mother holding her toddler's hand outside the Commonwealth *barangay* office, says that Mr Duterte's policies work because they target "pests". Even if they get another chance, "they'll just go back to using drugs," she says. Amelia, who runs a stall on a quiet Commonwealth street, says: "We like Duterte. Since he took over it's become quieter here because people are afraid."

Cruel of law

Recently Mr Duterte has escalated his crusade from the street to the halls of power. He has met some pushback. On August 7th he publicly named and accused more than 150 judges, politicians and senior military and police officials of involvement in drugs, giving them 24 hours to surrender. "Due process has nothing to do with my

mouth," said Mr Duterte. Few would disagree. Still, his list included the names of dead, retired and fired officials, and prompted an outcry from the country's chief justice and other politicians. In response Mr Duterte threatened to declare martial law. In any event, he won office largely because he was not an ordinary politician; opprobrium from *trapos* (slang for "traditional politicians" and a play on the Tagalog word for "old rags") only enhances his standing.

The longer the killings continue, the more damage is done to the rule of law. Last month Alfred Ceasico, a drug user, was shot dead in his own home by a hitman who ran into the house as his sister, Sheryl, was leaving. Three days before his death, police had detained him and demanded more money than his family could afford; when they could not pay, she says, they beat him with a wooden plank. She does not know who shot him, but wants to tell her brother's story. "Not all drug users are bad people," she says. ■

it serves their interests. Plenty of urbanites share the junta's desire to stamp out the lingering influence of Thaksin Shinawatra, a populist former prime minister who now lives in exile. The urban elites say he governed corruptly. Wildly popular among the rural poor, Mr Thaksin's parties have won every election since 2001 but will be disadvantaged more than any other by the new election rules. As for the generals' opponents, they had been warned that a "No" vote might result in the army imposing a charter they would like even less. A turnout of 59% suggests that some Thais saw no good choice at all.

Many voters appeared to have only limited knowledge of the new constitution's implications, having been intentionally kept in the dark by the farcical way in which the referendum was conducted. The junta banned opponents from criticising the text, on pain of a ten-year prison sentence, and arrested students who attempted to point out its deficiencies.

Yet the generals seem oblivious to the emptiness of their victory and to the anger the show-vote has stoked among the critics it had to gag. Shortly after the result was announced Mr Prayuth's government issued a pompous statement praising its own generosity for having offered Thais any say at all. It called the vote a "pinnacle" reached through many years of "great toil".

Both Thailand's big political parties had recommended rejecting the constitution, but they accepted the referendum result. An election will supposedly take place in November next year if the generals do not find an excuse to postpone it. It will certainly be cancelled in the event of the death of Thailand's venerated king, who is old and gravely ill.

By providing investors with the impression of progress, the referendum may give a brief boost to Thailand's sluggish economy. But weak governments beholden to powerful vested interests are hardly the ideal way to raise the country from its slough. The IMF reckons that Thailand's potential growth has slowed from 5% in the mid-2000s to 3% over the past five years. Domestic demand is weak and exports will fall for a third year in 2016. The workforce is growing old and expensive, and talk of moving to a zesty "knowledge economy" looks absurd as censorship and online surveillance are tightened.

The churning of Thailand's grim cycle of elections, protests and coups will subside for a while. Under the new system the generals will be able to manipulate politics without the hassle of mobilising tanks. But it will do nothing to tackle the root causes of the country's tensions—a history of antiquated and over-centralised governance which allows bigwigs in Bangkok to hog influence and resources. The referendum makes the coup permanent. But it is only papering over the cracks. ■

Thai politics

How not to solve a crisis

BANGKOK

A plebiscite further consolidates the army's power

HAVING launched more than a dozen coups in the past 80 years, Thailand's generals have not been friends of democracy. So it has been jarring to watch the country's ruling junta praise Thais for approving an army-backed constitution in a heavily-controlled "referendum", which took place on August 7th. Prayuth Chan-ocha, an irascible former army chief who became prime minister after a military takeover in 2014, insists the new charter will end a decade of political instability and allow for fresh elections next year. In fact it will not heal Thailand's deep divisions but make them worse.

The constitution, Thailand's twentieth, will keep soldiers in charge for years to come. New election rules will produce weak coalition governments that can be bossed around by bodies stacked with the junta's friends. The generals will handpick a 250-member senate, tasked with ensuring governments do not deviate from a 20-year programme of "reforms". They will need to convince only a quarter of legislators in the lower house to back their choice of prime minister, who need not be an MP. Barriers to amending the constitution are prohibitive.

The result stunned civil rights groups and other campaigners for democracy, who had believed the plan would face



Oh no

fierce opposition. More than 61% of votes were in favour. Voters in the rural north-eastern province of Isaan (where opposition to army rule is fiercest) turned the charter down, but only just. The one convincing rejection came from Muslim-majority provinces in the south, where separatists wage a long-running guerrilla war.

The vote is a reminder that many middle-class Thais can stomach military rule if



Kashmir

Reviving the cause

MUZAFFARABAD

Turmoil in Kashmir has reopened an old wound and hardened anti-India sentiment in Pakistan

IT HAS been a dispiriting decade for those who dream of Pakistan taking full control of Kashmir, the Himalayan former kingdom that India claims for itself. Pakistan-based activists have long feared Islamabad's heart is no longer in their cause. Some feel the big political parties are more interested in accepting the status quo of a divided Kashmir and focusing on trade. The Pakistani army, battling domestic extremists, is unwilling to reprise the 1990s, when it helped arm and train jihadists in Indian Kashmir (though it has refused Indian demands to crush them entirely).

But violence in Jammu and Kashmir, India's only Muslim-majority state, is now fanning separatists' hopes for a revival of their cause. It was triggered by the killing last month by Indian security forces of Burhan Wani, a popular commander of Hizbul Mujahideen, an insurgent group Delhi appears determined to shut down. People in the Kashmir valley, on the Indian-controlled side, defied curfews to turn out for his funeral. Through skilful use of social media the 22-year-old Mr Wani had become especially popular with a younger generation resentful of Indian rule.

Pakistani pundits have dwelt on India's efforts to reinstate order and the deaths of more than 50 civilians since Mr Wani was killed on July 8th. Islamist organisations such as Jamaat-ud-Dawa (which the UN lists as a terrorist front group) descended on Islamabad, Pakistan's capital, to stage a protest against India.

The dispute over Kashmir began at the partition of British India in 1947, when the

last maharajah of Kashmir dithered over which country to join. He chose India but only after Pakistan, which viewed a contiguous Muslim-majority area as a natural part of its territory, had sent tribal insurgents who grabbed half the land. Both countries still lay claim to the half of Kashmir they do not control.

According to Parvez Ahmed, a Pakistan-based leader of the All Parties Hurriyat Conference, a coalition of Kashmiri separatist groups, the recent unrest has transformed the debate within Pakistan. "No one is talking about trade or holding candles at the border any more," he says—a mocking reference to vigils held by Pakistan's peace lobby at Wagah, the only crossing point along the 2,900km (1,800 mile) border with India (see picture).

Before regional elections held on July 21st in Pakistan-administered Kashmir, candidates rushed to burnish their credentials as supporters of the separatist cause. At a victory rally the following day in the state capital, Muzaffarabad, Nawaz Sharif, Pakistan's prime minister, said that the country was "awaiting the day when Kashmir will become Pakistan". Such rhetoric has further aggravated relations with India. These had already been damaged by an attack carried out in January on an Indian airbase at Pathankot, near the border, by jihadists India believes were directed by handlers in Pakistan.

India on August 9th summoned Pakistan's high commissioner in New Delhi to protest at what it called continued infiltration of militants across the "Line of Con-

trol", the demarcation in Kashmir that neither side recognises as a border. The move came days after India's home minister, Rajnath Singh, at a regional conference in Islamabad, called for isolation of countries deemed to be supporters of "terrorism".

Most mainstream Pakistani politicians privately accept that their country's long-standing demand for a plebiscite that would allow Kashmiris on either side to decide their future, as called for in a UN resolution in 1948, will never be met. Support for cross-border violence fell considerably in the early 2000s when it became clear that the cost to Pakistan's reputation was too high. Some fear that Indian Kashmiris might not even opt to join Pakistan if given the chance, so badly has Pakistan's economy fallen behind India's. They may be right: in Indian Kashmir the talk is usually of *azadi*—freedom—not of joining Pakistan.

Realists know that the only policy with a chance of success is something like a proposal in 2004 by Pervez Musharraf, a former military dictator. This involved no exchange of territory but freedom for Kashmiris to move between the two sides, demilitarisation and greater self-government for the region. But such a compromise would require warm relations with India. Mr Sharif would like nothing better. In December he hosted Narendra Modi, India's prime minister, on the first visit by an Indian premier in 12 years. If Mr Modi is to return, as he plans to in November for another regional summit, the issue of Kashmir will need to simmer down again. ■

Gay rights in Indonesia

Under pressure

JAKARTA

Religious conservatives push back against gay-rights activists

FOR a Muslim-majority country, Indonesia has often been regarded as relatively tolerant on gay issues, as long as gay people were discreet. Homosexuality has never been criminalised and sexual minorities have mostly been left alone. But in recent years, as LGBT groups have become more vocal in pursuit of equal rights, religious conservatives have reacted angrily and started to push back. A report this week by Human Rights Watch (HRW), a pressure group based in New York, says LGBT rights have come under "unprecedented" attack this year.

In January the minister for higher education sought to ban LGBT student groups from university campuses. They were, he said, at odds with the "values and morals" of Indonesia. Conservatives are petitioning the constitutional court to make gay sex ►►

▶ a crime punishable by five years in prison. The past couple of years have also been bad. In 2015 the country's top clerical council passed a *fatwa* condemning homosexuality. Yuli Rustinawati, chairman of Arus Pelangi, a civil-society group which campaigns on LGBT issues, worries that matters will only get worse. "We are close to criminalisation," she says.

The absurdity of some aspects of the government's anti-gay campaign—in which ministers have, among other things, told popular social-messaging apps to remove emojis depicting same-sex couples because they might spark unrest—belies the threat it poses to millions of people in Indonesia. A series of homophobic statements by prominent politicians, religious leaders and the mass media have provided "social sanction" for Islamist hardliners to persecute LGBT people, according to the HRW report. Some activists have gone into hiding after receiving death threats.

Groups such as the Islamic Defenders Front, a hardline religious organisation, have frequently disrupted LGBT parades and other assemblies with impunity. But what has been just as shocking this year is how ministers and officials have stirred things up. In February the defence minister claimed that LGBT groups were waging a "proxy war" that posed more of a risk to national security than a nuclear attack. Indonesia's television and radio regulator has issued rules against content that might depict homosexual relationships as anything other than "deviant". And politicians have applauded quacks from the psychiatrists' association talking of homosexuality as a sickness that can be cured.

Politics, as much as religious conviction, plays its part. Many politicians sense they may win more votes by presenting themselves as pious Muslims than by defending sexual minorities from persecution. Local leaders have used the far-reaching powers devolved to them since the overthrow in 1998 of Suharto, Indonesia's former strongman, to pass by-laws that discriminate against LGBT people and other minorities. The most extreme case is Aceh, the only province to enforce Islamic *sharia*, under which homosexual acts are punishable by 100 lashes. LGBT groups worry about more anti-gay measures ahead of local elections next year. And they fret that the national government does not seem to provide any protection.

For Ms Rustinawati this is especially troubling. LGBT activists campaigned vigorously for Joko Widodo, known to all as Jokowi, during the closely contested presidential election of 2014. They saw him as the man to uphold Indonesia's traditional tolerance. Now he is president, they feel he has let them down by failing to support them. Ms Rustinawati says LGBT groups are not seeking special treatment: "We want the same rights as other people." ■

Women's education in Afghanistan

Liberation through segregation

KABUL

A university just for women opens in the Afghan capital

WHEN Aziz Amir was a young man, his mother died from an infection which should have been easy to treat. "She didn't go to a hospital because she didn't want to show herself to a male doctor," says Mr Amir, a trained cardiologist who now owns a private hospital in Kabul. Determined to give more Afghan women medical training, in May he inaugurated the Moraa Educational Complex, a private university for women only, together with a school and nursery for their children. Housed in a cluster of lime-coloured buildings, the university offers courses including medicine, nursing and midwifery.

Afghanistan has many private universities. Moraa is the first just for women. Will it be a boost to women's education, or perpetuate segregation of the sexes? Many Afghan girls do not even make it through school, leaving to get married (15% of all girls wed by the age of 15) or because their parents are unwilling to let them mingle with boys after puberty. Under the fundamentalist rule of the Taliban, girls' enrolment in primary school fell from 32% to just 6.4% between 1996 and 1999. Only 24% of women are literate, according to UNESCO, compared with 52% of men (see chart).

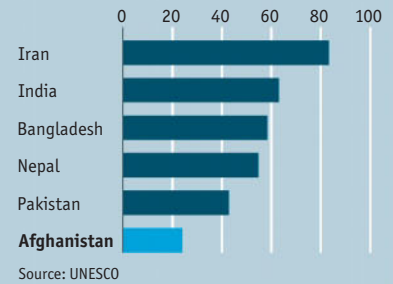
The government claims big improvements: it counts 8m Afghan children enrolled in school, 2.5m of them girls, and says the number of female university students has risen by 50% since 2008.



I want to be a doctor

Taken as read

Literacy rate, women aged 15 and over
2015, %



Foreign donors are said to have built thousands of schools and trained some 200,000 teachers. But these figures are suspect and drop-out rates for girls are still high. An American government watchdog has documented non-existent schools and "ghost" pupils. Although the Taliban have become more amenable to educating girls, opposition to the notion is still strong: according to the UN, last year at least 96 schools were attacked.

The failure to turn out female graduates has a woeful impact on women's health, since it means too few female medical and nursing staff. Again, the figures have improved, but not enough. Around 4,000 midwives have been trained since 2003. But the maternal mortality rate is still 327 per 100,000 births—far better than in 2002, when it stood at 1,600 per 100,000, but very high by international standards.

In funding the new university's set-up costs, Mr Amir has taken a risk. Afghanistan's stagnant economy makes it hard to be sure of a return. At present it has only 240 students, mostly from middle-class families; he has ambitions for a campus holding 12,000. But foreign donors are wary of funding institutions that are segregated by sex—a mistake, says Mr Amir, since if fathers cannot send daughters to a place of learning they trust, many will not let them go at all.

Malina Heimat, who is 22 and will help train midwives, says her family made her resign from a job that involved working with men at a government hospital, but is allowing her to teach at Maara. Marwa, a medical student, says it is easier to talk about biology when there are no men present. She isn't worried that the campus could become a target. "We won't let those people who don't want us to get an education stop us."



The judicial system

Suppress and support

BEIJING

The Communist Party cracks down on political activists, even as it eases up on some less sensitive legal cases

A HUMAN-RIGHTS lawyer and three activists have been found guilty of “subverting state power” in a series of trials in the northern city of Tianjin. With resonances of the show trials of China’s Cultural Revolution in the 1960s, they are the latest part of a crackdown on Western ideas and social and political activism that began in earnest after Xi Jinping became Communist Party chief in 2012.

The past year has been particularly intense for lawyers and activists, starting last July when 250 of them were detained by police. The four convicted between August 2nd and 5th were accused of being part of a foreign-backed, anti-party conspiracy and confessed their “crimes” in video footage.

Yet the crackdown on rights lawyers and political activists is not the whole story. It comes as incremental judicial reforms are taking place for less sensitive cases at a local level which mean that some citizens are making modest progress seeking redress through the courts. These two contradictory dynamics—old-style, top-down political pressure alongside some bottom-up legal empowerment—are part of the party’s carrot-and-stick approach to maintaining stability. While no one expects significant change at the top, the big question is how much impact the local level reforms can have.

The four men who stood trial last week included Zhou Shifeng, former director of a Beijing law firm famous for defending ac-

tivists such as Ai Weiwei, an artist, and intellectuals such as Ilham Tohti, an economist who spoke up for the Uighur ethnic group. Mr Zhou was jailed for seven years.

His family members, and those of the other defendants, were not allowed to attend the trials. Police blocked foreign journalists from entering the courthouse and official media reports discredited the men ahead of their sentencing. International observers condemned the proceedings in Tianjin as a travesty of justice. On August 1st, Wang Yu, another prominent human-rights lawyer, was said to have been released from jail. In a televised confession she proclaimed that “foreign forces” were to blame for inciting her law firm to undermine the Chinese government. “I won’t be used by them anymore,” she said. Over a dozen lawyers and activists are still being held, according to Amnesty International. They could be tried at any time.

Stay out of politics

On less sensitive cases, however, popular anger has pushed the judicial system to try to be more accountable. China’s most senior legal figure, Zhou Qiang, appointed president of the Supreme People’s Court in 2013, is widely believed to want to use judicial reform to stop people taking their anger onto the streets—an increasingly widespread phenomenon. In the past, Chinese courts would arbitrarily reject sensitive cases. Many still do. But new rules brought

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in last year now oblige them to hear all cases that fulfil basic standards, even if they then throw them out. In the first month after the regulations came into effect, there was a 30% jump in the number of cases accepted.

In China’s first same-sex marriage case, a gay couple went to court in April in the southern city of Changsha to sue the local civil affairs bureau for the right to marry. The judge dismissed the couple’s case within minutes and they lost their final appeal two months later, but legal reformers saw the case as progress because it was at least heard in a courtroom.

In the past year, the number of cases accepted by courts relating to the rights of socially marginalised groups has surged, even though few have won. They include a lesbian student suing the education ministry for textbooks calling homosexuality a disorder; the country’s first transgender employment discrimination case; and dozens of food-safety and environmental-protection suits that challenged large companies. In a landmark victory in April, a court in the south-western province of Guizhou ruled that a local education bureau must pay a school teacher compensation after he lost his job for testing HIV-positive. China has no specific laws against employment discrimination and the case was reportedly the first of its kind.

Stanley Lubman, an American legal scholar, says the ability to sue government agencies is important and the increased pursuit of such cases reflects a greater legal consciousness among citizens. Two other things are contributing to the changes. One is progressive legislation, such as recent new laws to protect the environment and punish domestic violence; these have widened the space for litigation. A pilot reform launched last year even encouraged state prosecutors to pursue public-interest suits. ▶▶

▶ The other is social media. Sun Wenlin, a 27-year-old IT worker who is half of the gay couple in Changsha, is optimistic in spite of losing his case. “Homosexuality is taboo and we thought no one would care. But our case generated a lot of discussion on the internet. We had sympathetic coverage even in state-owned media,” he says. Mr Sun now gives workshops around the country to teach others how to file similar lawsuits, hoping to change the belief among cynical Chinese that the law is just a tool of oppression. “China is clearly changing, but slowly,” he says.

Yet the courts are still under the thumb of the Communist Party. Officials approve the hearing of many cases and sometimes determine the verdict and sentence, too. There is no way for plaintiffs to know whether a case will cause them trouble or not. Jerome Cohen of New York University says the focus of Mr Xi’s presidency is on expanding central control. The party defines sovereignty and national security broadly in order to keep control over sensitive issues, says Susan Finder, an expert on China’s legal system.

Long way to go

It will take a lot more effort to educate the broader public on their legal rights and to train enough legal officials. Judges, especially those in lower courts, are poorly paid and have little formal legal training. Many have been jailed for taking bribes. This generates deep resentment, and is the reason why thousands of petitioners journey to Beijing each year to complain to the central government rather than bother using the local courts.

Now many judges are leaving the profession, citing low pay and high pressure. The caseload of all levels of courts went up significantly following the recent reforms, while changes to judicial procedure in 2014 had already declared that judges should bear “lifetime responsibility for case quality”. A former judge in Beijing, now earning much more as a commercial lawyer, says that reforms have made things better for lawyers, who have more confidence in the system, but worse for judges, who find their ability to benefit from their position more limited.

Experts say reforms are trying hard to reduce corruption at local levels, not least to limit the damage it does to the party’s reputation nationally. But the possibility of any kind of institutional, independent checks and balances is still a long way off. On July 22nd a Beijing court gave no reason for rejecting a lawsuit filed by *Yanhuang Chunqiu*, an outspoken liberal journal, over the demotion of the journal’s chief editor and the firing of its publisher. It is a measure of how ossified the overall system remains that some of the small changes in local cases are greeted with such optimism. ■

Youthful nationalists

The East is pink

SHANGHAI

As online mobs get rowdier, they also get a label

TRY AS the Communist Party might to sanitise the internet, its people keep coming up with new ways to discuss politics. They have developed colourful slang to express sarcasm, dodge censors and attack their opponents. Their latest invention sounds cute: “little pink”, or *xiao fenhong*. Its meaning, at least as initially intended, is not so sweet. It is a disparaging term for young nationalists who use the internet as a battleground for patriotism, often focusing on pop culture to whip up support.

The term first started to emerge a few years ago in a popular online chat group called Jinjiang Forum, whose website has a pink background. Its users called it “little pink” out of affection. It was not primarily a political forum, but from time to time political topics surfaced. A small group of contributors came to be known for their nationalism. Outsiders called them “little pink” as an insult, and the phrase soon caught on as a label for nationalistic youth.

To those who detect worrying parallels between Xi Jinping, China’s leader, and Mao Zedong, the little pink are sinister. They are seen as modern-day Red Guards, the students who exploded in rage and violence at the start of the Cultural Revolution 50 years ago. Many think this is an exaggeration; but they still see the little pink as an ugly trend, a Chinese manifestation of the coarsening of online discourse.

A two-week tussle catapulted the clan to mainstream attention in July. Young people lashed out at a Chinese film director for casting a Taiwanese actor in the lead

role of “No Other Love”, a film due to be released next year. They accused Leon Dai, the actor concerned, of supporting Taiwanese independence because he appeared to back protests against a free-trade deal with China two years ago. The director ended up cutting Mr Dai out of the film, despite having already completed shooting. After this victory, media outlets and scholars began analysing the phenomenon.

Little-pink outbursts have been getting more frequent. In January, when Tsai Ing-wen, a Taiwanese politician who leans toward independence, was elected president, Chinese netizens flooded her Facebook page with negative comments and pictures. In June they called for a boycott of Lancôme, a French cosmetic company, for hiring Denise Ho, a Hong Kong singer suspected of supporting independence for the former British territory. Lancôme dropped her. Next, they swarmed Lady Gaga’s Instagram page after the American pop star met the Dalai Lama, the spiritual leader of Tibet, condemned as a separatist by the Chinese government.

This week netizens have turned their rage on Mack Horton, an Australian swimmer who won gold at the Olympics in Rio de Janeiro, because he called Sun Yang, his Chinese rival, a “drug cheat”. Criticism of Mr Horton was much more widespread than that of either Ms Ho or Ms Gaga, crossing quickly into mainstream media. But the bombardment of his social-media accounts with angry comments bore the hallmarks of little-pink attacks.

The pink gang’s attitude is different from the broader nationalism in Chinese society. The vast majority of Chinese people would oppose Taiwanese or Hong Kong independence. But only a minority fly into a cyber-rage at the slightest provocation. Many people frown on little-pink actions as extreme, but they have won influential backers. Seizing on the more conventional association of the colour pink, the Communist Youth League praised the online mobs as female nationalists. It declared on its official microblog that they are “our daughters, our sisters, girls we had crushes on”. Many young women started declaring themselves “little pink” as a badge of honour. “We couple strength with gentleness, and love our country wisely,” one self-declared member wrote on the Youth League microblog.

There is a streak of humour in the movement. Members are not calling for violence. Often they just post silly pictures. Playing on the idea that Taiwanese look down on mainland Chinese for being poor and unable to afford good food, they flood Taiwanese websites with photos of mainland delicacies. But plenty of people still worry that beneath the giggles lies a more disturbing undercurrent—that, at some point, the little pink might blaze into a harsher shade of red. ■



La vie en rouge



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New rivalries on a contested continent

Asia's scramble for Africa

NAIROBI

India, China and Japan are battling for influence

IF THERE is a modern gateway from the east to Africa, it is arguably Addis Ababa's airport. Passengers passing through its dusty terminals on their way to some far-flung capital will be surprised to find that getting an Ethiopian meal is remarkably difficult. Asian dumplings, however, are available at two different cafés. Signs marking the gates are in English, Amharic and Chinese, as are announcements.

Dozing gently on the beige loungers are untold numbers of young Chinese workers waiting for flights. They are part of a growing army of labourers, businessmen and engineers who can be seen directing the construction of roads, railways and ports across much of east Africa.

Concerns about China's involvement in Africa are often overplayed. Accusations that it is buying up vast tracts of farmland, factories and mines, for instance, are blown out of proportion. Even so, its growing influence on the continent has nettled India and Japan, who are both boosting their engagement in response.

As with previous rounds of rivalry in Africa, such as during the cold war, at least some of this activity relates to access to bases and ports to control the sea. China's involvement in Africa now includes a growing military presence. Thousands of Chinese soldiers have donned the UN's blue helmets in Mali and South Sudan, where several have been killed trying to keep an imaginary peace. Chinese warships regularly visit African ports.

China maintains a naval squadron that escorts mostly Chinese-flagged vessels through the Gulf of Aden. But some diplomats fret that China has been using these patrols to give its navy practice in operating far from home, including in offensive actions. "You wouldn't normally use submarines for counter-piracy patrols," says one.

Patrolling for pirates has also given China an excuse to set up its first overseas base in Djibouti, next door to an existing American one. Yet the more alarmist worries about China—that it is planning to build naval bases in a "string of pearls" stretching from China to the Red Sea and as far as Namibia's Walvis Bay on the Atlantic coast—have not materialised. The Walvis Bay rumour seems to be a red herring. China has used its ships and soldiers to protect its own citizens in Africa and the Middle East: in 2011 it evacuated 35,000 of them from Libya and last year one of its ships rescued 600 from Yemen. But its main naval focus remains the South China Sea.

Wary does it

Still, India is deeply suspicious of China's presence in the Indian Ocean. A wide network of some 32 Indian radar stations and listening posts is being developed in the Seychelles, Madagascar and Mauritius, among other countries. This will enable India to monitor shipping across expanses of the ocean. It is also improving its ability to project power in waters it considers its own, and is arming friendly countries such

as Mauritius. Among other things, India is building a naval and air base on Assumption Island, north of Madagascar and within easy reach of many of east Africa's newly discovered offshore gasfields. "It's the Indian Ocean, stupid," quips one seasoned commentator in mimicry of Indian diplomats on its power projection. "They say it's 'our near abroad'."

Japan has also been flexing its naval muscle but in a more limited manner. This month it pledged \$120m in aid to boost counter-terrorism efforts in Africa. It has been a stalwart contributor to the multinational naval force policing the seas off Somalia's coast. Sino-Japanese rivalry is fiercest in diplomacy and trade. Two prizes are on offer: access to natural resources and markets, and the continent's 54 votes at the UN. Much of the effort to win the former was pioneered by Japan in the 1990s, when it helped build ports and railways. Akihiko Tanaka of the University of Tokyo, a former president of the Japan International Co-operation Agency, says that for years Japan's aid to Africa was "qualitatively different" from that of other rich nations in part because it focused on infrastructure rather than the direct alleviation of poverty. "We were criticised a lot," he says. "Now there is an almost unanimous view that you need to invest in infrastructure."

Japan's latest spending spree on infrastructure will speed economic growth on the continent; but there is a degree of one-upmanship and duplication. Japan recently handed over the keys to a new cargo terminal at Kenya's main port in Mombasa. Meanwhile, a short hop down the coast at Bagamoyo, Tanzania is building east Africa's biggest port—with Chinese cash.

On the diplomatic front both Japan and India are trying to make common cause with African states that want to reform the UN Security Council. They argue that Africa deserves permanent seats on it, as do ►►

▶ they. China favours a permanent seat for an African country, and it doesn't mind India having one. But in return it expects endorsement of its stand against Japan getting a seat.

Both Japan and China back up such diplomatic efforts with aid and, at least in China's case, this seems to have helped win it friends. Countries that vote with China in the UN (for instance over Taiwan) usually get more cash from it, according to Aid-Data, a project based at the College of William and Mary in Virginia.

China also makes African friends by selling arms. In the five years to 2015 it nearly doubled its share of weapons supplied

to sub-Saharan Africa, from little more than a tenth of the total to almost a quarter, according to the Stockholm International Peace Research Institute, a think-tank. It has sold tanks and jets to Tanzania, armoured vehicles to Burundi and Cameroon, and missile launchers to Morocco, to name but a few. It also wins friends among the continent's war criminals through its policy of "non-interference" in the internal affairs of other countries, for instance by opposing the International Criminal Court (ICC).

Japan, which until 2014 was prohibited by its constitution from selling weapons, and supports the ICC, has had a harder

time. It has concentrated on dispensing aid and using soft power, such as awarding scholarships for study in Japan and free classes in aikido and karate at its embassy in Nairobi. But even in this sphere it is outclassed by China, which has established some 46 Confucius Institutes in Africa to teach Chinese language and culture. China also flies thousands of Africa's ruling-party officials, civil servants and trade unionists to attend political-training schools in China. This has worked so well in South Africa that the ruling African National Congress last year published a foreign-policy discussion document suggesting that China's Communist Party "should be a guiding lodestar of our own struggle."

Yet apart from South Africa, which has slavishly aligned itself with China (for instance by voting with it against a UN resolution to protect the right of people to hold peaceful protests), most African countries are good at playing off rivals against each other, says Alex Vines of Chatham House, a London think-tank. Many have diversified their diplomatic links by opening new embassies, including ones that cross previous divisions between rival powers in Africa. Countries including Burundi, Mauritania and Togo, that used to fall firmly within France's sphere of influence have opened embassies in Britain. "This is a really great time for clever African countries to get really good deals," says Mr Vines. ■

Zambia's elections

A test case for democracy

LUSAKA

Fingers crossed that a tight poll will again be freely and fairly decided

RE-ELECTION campaigns are not fun for the incumbent. They are worse when the economy is in free fall. And worse still when fought under new constitutional rules yet to be tested. So imagine facing an election with all that, just 18 months after becoming president. That was the awkward fate of Edgar Lungu, Zambia's president. On August 11th, as *The Economist* went to press, Zambians were voting on whether to give Mr Lungu, who took office in a by-election last year after the death of his predecessor, another full term.

The vote, which followed one of the ugliest campaigns in Zambian history, looked to be one of the closest in its history, too. The results, due over the weekend, will go some way towards answering a big question: is Africa getting used to the idea that a well co-ordinated opposition can overcome the power of incumbency?

Historically Zambia is one of Africa's most stable countries. In 1991 it became ▶▶

Ethiopia's football follies

Full time?

ADDIS ABABA

The country is overdoing its stadium-building

BROKEN windows, fraying nets, chairs with missing legs; the Yidnekachew Tessema Stadium in Addis Ababa has seen better days. Rehabilitated by Emperor Haile Selassie after his return from exile in 1941, it was once a proud monument to Ethiopia's restored independence following five years of Italian occupation. In 1962 it hosted the African Cup of Nations (Afcon); the national football team, known as the "Walias", won. But the Walias, like their stadium, have struggled since. In 2012 they ended a 31-year stretch in the wilderness by qualifying for Afcon. In 2013 they duly crashed out in the first round.

Enough is enough, says the government. Ethiopians are proud of their sporting heritage: the country's long-distance runners are among the best in the world. "We were the founders of African football," says Juneydi Basha, head of the Ethiopian Football Federation. Addis Ababa hosts the African Union; the government wants it to host Afcon again.

In every big town, new football stands

are going up. The federal government, which is paying, says eight "world-class" stadiums—each with a capacity of at least 30,000—are being built. Six smaller ones are also under way in the capital. The flagship is a 60,000-seater (as big as Arsenal's Emirates stadium in London) in the centre of Addis Ababa, being built by the Chinese State Construction and Engineering Corporation at a projected cost of at least \$110m.

Ordinary Ethiopians scent folly. The ruling Ethiopian People's Revolutionary Democratic Front (EPRDF), has a solid reputation for managing the country's infrastructure, but the stadium programme has people talking. The claim that it is simply responding to popular demand seems doubtful. "It makes no sense," says Leoul Tadesse, a local sports journalist. "Building stadiums won't solve our problems." Football enthusiasts cramming into bars underneath the old stadium to watch European football matches point out that state-of-the-art infrastructure is no substitute for skills. Just look at England, which has a rich, fabled league but a poor national team.

Is the EPRDF, which has governed Ethiopia since winning power in 1991 after a decade of armed struggle, scoring an own goal? The country's revered former prime minister of 17 years, Meles Zenawi, would probably not have let the programme kick off. The stern veteran of the EPRDF's bush war, who died in 2012, is said to have remarked once that Ethiopia needs fertilisers, not stadiums. With the country only just starting to recover from drought—and this week wracked by widespread anti-government protests, in some of which security forces are accused of having fired into crowds—those words now seem prescient.





State power

Only the second country on the continent (months after Benin) to experience the peaceful, democratic removal of an incumbent at the ballot box, when Kenneth Kaunda, who had run the country for 27 years after independence, stepped down after losing the country's first multiparty poll. Government has since changed hands several times, most recently in 2011, when Mr Lungu's party, the Patriotic Front (PF), was elected with Michael Sata, Mr Lungu's predecessor, as its president. Mr Lungu, also from the PF, won a by-election to replace Mr Sata after his death last year by just 1.7% of the vote.

This election seems likely to be just as tight. The opposition is again fairly unified around the same candidate, Hakainde Hichilema, a businessman who has fought five presidential election campaigns including this one. This time he is promising to fix the economy and end corruption. He says that if he wins he will cut the number of ministers by 48, apparently saving \$750,000 for each just in the cost of government cars.

In normal circumstances Mr Hichilema would win. The Zambian economy, which depends on copper for over two-thirds of its export revenues, is struggling. In the past two years the currency, the kwacha, has lost around 40% of its value against the dollar. That has raised the price of food for Zambians. It also forces hard decisions on the government. A bail-out from the IMF is expected, though Mr Lungu refused one earlier in the year, because of his unwillingness to cut fuel subsidies.

Mr Lungu has fought dirty. The Post, the only independent newspaper in the country, was closed in June, allegedly over non-payment of taxes. Mr Hichilema's rallies have been held up on legal technicalities and his helicopter flights restricted. Dipak Patel, his campaign manager, says the counting of ballots will be rigged, too. As the results trickle in, it will become clear whether such tactics will have been enough to keep Mr Lungu his job. ■

Iraq's Yazidis

Freedom on hold

MOUNT SINJAR

Safe from Islamic State, Yazidis now face a struggle with the Kurds

FROM afar, Mount Sinjar rises out of Iraq's caked-earth flats like a giant upturned tureen. Up close, its crevices offer glimpses of lush tobacco plantations, and the homes of Yazidis lurking within. So formidable are its rugged defences that it has defeated the many foes who for centuries have sought to stamp out the ancient peacock-worshipping sect. Even the most recent and cruel, Islamic State (IS), which massacred and enslaved Yazidi communities on the plains with abandon, gave up the effort once it reached its foothills.

The mountain's plateau today is coated with tents, sheltering the fortunate thousands who fled for its passes before the jihadists swept through in August 2014 and hunted the others down. Reluctant to entrust their fate to outsiders, they have set up their own administrative council in a caravan, as well as an armed force, the Sinjar Resistance Units, numbering 1,000 men. The multi-faith settlements Saddam Hussein fashioned on the plains below in the 1970s seem a historical relic. Today, says the council chief, Khidr Salih, Iraq's half million Yazidis need their own enclave and homeland; the region has now fallen to the Kurds.

In Mr Salih's telling, the Yazidis' new Kurdish overlords are little better than Arab ones. If the latter perpetrated genocide, the former, he says, let it happen by fleeing without a word in the night as IS approached. "We want international forces," reads the graffiti on a roadside, indicating the local distrust.

Those are unlikely to come any time soon. Kurdish forces control Fishkhabour, the gateway to Sinjar on the banks of the Tigris River 60 miles (100km) to the north, and access depends on permits. This correspondent was granted permission, but other foreign aid workers and journalists complain they are turned back.

None of Iraq's warring communities has done more to rescue Yazidis than the Kurds. Whereas other Muslims shunned them as devil-worshippers (the revered Yazidi peacock, Melek Taus, represents a fallen angel associated with Satan), Kurdish fighters opened a corridor to Sinjar after IS took control of the plains. Kurdish leaders, who pride themselves on their religious tolerance, readily accommodated legions of the displaced in vast camps. Though Sunni, they created a department of Yazidi affairs in the religious ministry of the autonomous Kurdistan Regional Govern-

ment. Their prime minister, Nечirvan Barzani, ordered the renovation of the Yazidis' second holiest shrine. The Kurds launched a commission to investigate and highlight crimes of genocide, and uncover mass graves—31 at the latest count.

But as is often the way of the Middle East, in their quest to mark out their identity, liberation movements are prone to suppressing similar stirrings in others. Kurdish officials have submerged the predominantly Kurdish-speaking Yazidis into a broader Kurdish collective. Though the Kurds, with American help from the air, almost entirely recaptured Sinjar from IS by the end of 2015, Mr Barzani's government is seeking to postpone a mass return "until after Mosul falls," says his spokesman. "Realistically, the Yazidis are not going home for a long time," says an official at Mamiyan camp, which hosts 13,000 displaced people deep in Kurdistan's hills, 170 miles (270km) east of Sinjar.

Fearful that another resettlement programme looms, Sinjar's Yazidi leaders liken a programme of "Kurdification" to Saddam Hussein's Arabisation in the 1970s. "We're neither Kurds nor Arabs," insists Mr Salih, Sinjar's fledgling council leader. His efforts to encourage a mass return are dogged by a lack of services. Mr Barzani, the ruler of Iraqi Kurdistan, has yet to reconnect Sinjar and its surrounding settlement to the main electricity grid or water mains, and has shunted responsibility for financing schooling and reconstruction onto Baghdad. And having failed to protect the Yazidis in 2014, his officials say they do not want to make the same mistake twice. "It's not safe enough for a mass return," explains his security chief at Sinouni, who in calmer times was a veterinarian.

Security can also seem wanting in Kur- ►►



distan's camps for the Yazidis. At Mamiyan, camp managers offer joint baking classes in an attempt to break down barriers between Yazidis and displaced Sunni Muslims from Mosul, whose tribes many Yazidis blame for perpetrating the genocide. "We make sure everyone washes their hands at the start," says an aid worker, hoping to combat Muslim taboos on eating with devil-worshippers. But the tents are said to conceal weapons. And when a Sunni imam uttered the traditional call to prayer seeking protection from Satan, Yazidis took offence, and violence quickly followed. Armed Kurdish Muslims from outside the camp rushed to help Muslims within. "The [Sunnis] don't recognise what we've been through. They still think we're infidels," says a young camp resident. "We're desperate to go back to Sinjar." ■

Libya and the West

Piling in

CAIRO

Divisions within divisions in Libya complicate the West's intervention

WHAT has been the worst mistake of Barack Obama's presidency? Failing to plan for the day after intervening in Libya, says the president himself. Five years ago rebels backed by Western air strikes ousted Muammar Qaddafi, Libya's dictator. But the West lost interest as the country stumbled on the path to democracy, then fell into civil war in 2014. Now Libya is divided, most notably between east and west, each with its own government, and home to three different branches of the Islamic State (IS) jihadist group.

Amid the chaos, thousands of migrants have used Libya as an embarkation point for the trip across the Mediterranean Sea to Europe. It is feared that terrorists are taking advantage of the lawlessness to plan attacks abroad.

So the West has stepped back in. America, Britain, France and Italy all have troops on the ground in Libya, and are increasingly being drawn into the fight against IS. With Western support, the UN is backing a government of national accord (GNA) based in Tripoli, the capital, and led by Fayez Seraj. But Libya's many divisions are proving hard to mend. The GNA was meant to unify the country's fighting forces, but it draws support mainly from militias in the west. The body has not been approved by a parliament in the east that is under the sway of a Libyan general, Khalifa Haftar. Backed by Egypt and the UAE, General Haftar commands forces aligned with the eastern government and looks increasingly like a dictator.

On August 1st America dipped its foot further into the morass by launching air strikes against IS fighters holed up in the coastal town of Sirte. The battle for the town is indicative of the complications facing the West. American air strikes have aided a force of militiamen mostly from Misrata, in the north-west, who are aligned with the GNA. But their loyalty is precarious. Fighters complain of being abandoned by the government, which was slow to call for American help and, according to diplomats, still has not asked for the easing of an international arms embargo. "If nothing changes, Seraj's time will come," a Misratan fighter told Reuters.

After two months of fighting, there are only a few hundred jihadists left in Sirte; this week the government captured a large convention hall complex in the city centre from IS. What follows its defeat may exacerbate divisions in the country. The Misratans say they will leave Sirte after the battle, but that is doubtful. Battlefield successes have emboldened Misratan leaders, who have hardened their stance against General Haftar playing any role in Libya's future. Defeating him, not IS, should be the priority, say some Misratans.

Mr Haftar's forces are in Benghazi, east of Sirte, fighting jihadists and the general's more moderate opponents. Western special forces—the French, in particular—are also thought to be active in the east. On July 20th three French soldiers were killed in a helicopter crash near Benghazi. An Islamist-aligned group called the Benghazi Defence Brigades (BDB) claimed credit for downing the helicopter. So tangled is the web of alliances in Libya that the BDB is backed by Misratan militias, which benefit from American air strikes.

The revelation that French soldiers are in Benghazi set off protests in western Lib-

ya, while America's air strikes sparked criticism from Islamists in Tripoli. But much of the public's anger is aimed at the GNA, which has struggled to establish its authority, even in the capital. It has mostly failed to restart public services or stabilise the collapsing economy. Often painted as a Western puppet, it is reluctant to ask for help. Some analysts fear that IS will further undermine the government by launching attacks in Tripoli. A victory in Sirte would at least give it a morale boost.

The West has papered over Libya's divisions, first with the creation of the GNA and more recently with deals over oil production. Yet the country is almost broke. Libya's output dropped to 300,000 barrels a day in July, from 1.6m at the start of 2011. Ibrahim Jathran, whose Petroleum Facilities Guard controls oil ports at Ras Lanuf, Sidra and Zueitina, says he wants to reopen facilities, some of which have been heavily damaged. But his loyalty to the GNA is fickle—he has sabotaged production before—and his efforts alone cannot guarantee the flow of oil. Mr Haftar's forces and militias from Zintan have the ability to cut off pipelines further south. The national oil company is hoping to bring production up to 900,000 barrels a day by the end of the year. That is optimistic; yet another conflict, between Mr Jathran's men and Mr Haftar's seems more likely.

Many think federalism or decentralisation, whereby the oil money is split between regions, is the answer in Libya. Getting there is the hard part. The West, at least, seems more likely to stick around this time. America's next president, to be chosen in November, looks likely to be Hillary Clinton, who argued for intervening in Libya in 2011 as secretary of state. Like Mr Obama, she too may hope to make up for the chaos that has followed. ■



One for the caliphate

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Migration within the EU

Europe's scapegoat

TARGU LAPUS

The EU's cherished free-movement rights are less secure than they seem

THERE is not a lot to do on the outskirts of Targu Lapus, a small town in northern Romania. But Catalin Konolos, a construction worker, is rarely home, so he is making the most of a mid-afternoon game of cards before he returns to Luton, a town north of London, for another spell on the building sites. Mr Konolos and his brother, Viorel, sitting beside him, typically toil for four months at a time in Britain before taking a break at home. They work for other Romanians, and have little interest in integrating. Neither speaks English.

The brothers embody the European Union's free-movement rights. They, and millions like them, are filling labour needs abroad and improving their wages by many multiples. Much of that income finds its way to Romania, in the form of remittances to family members or via consumption (often of the conspicuous kind, as the flash cars in nearby villages testify).

The system is almost unique. What began in 1957 as a work-permit regime among the EU's six founding members now allows Europeans to work, study and retire anywhere across the 28-member club (plus a handful of other countries) without a permit or visa. It is meant to complement the EU's other freedoms: of goods, services and capital. Surveys consistently find that citizens prize free movement above anything else that EU membership brings. Governments also back it fiercely: David

Cameron, Britain's former prime minister, dismally failed to secure an exemption for Britain from freedom of movement earlier this year.

Yet mobility is a freedom few in Europe have chosen to exercise compared with workers in other labour markets. Americans are three times as likely to move states in search of work than Europeans are to cross borders, according to the World Bank. Language hurdles can be difficult to surmount; qualifications earned in one country may not be recognised in another. When viewed through the prism of international migration, however, the recent

mobility has been extraordinary. Since the early 1990s nearly 5.5% of eastern Europe's population has emigrated. In 2014 fully 20% of EU citizens living elsewhere in the club were Romanians (see chart).

In many ways the system has worked. The EU reckons that the extension of free-movement rights to eastern Europe after two enlargements in 2004 and 2007 boosted overall GDP by €40 billion (\$45 billion). In crises free movement can act as a macro-economic stabiliser, particularly in the euro zone, where currencies cannot adjust. In recent years southern workers have flocked to the wealthier north.

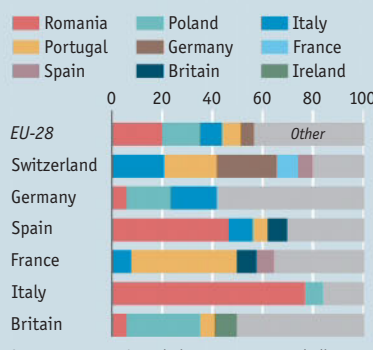
But tensions exist, seen most visibly in Britain, where arguments over EU migration fuelled much of the debate over the recent vote to leave the club. In most countries European immigrants are net contributors to the public purse. But German and Dutch politicians have fretted about "welfare tourism". France has backed controversial new EU rules that would force companies sending employees abroad ("posted workers") to match local wages, irking eastern European governments worried about their citizens' jobs.

It is the home countries of emigrants, however, that have been most hurt so far. A recent IMF report found that post-communist emigration from eastern European countries has stunted their growth, strained public finances and accentuated demographic problems. Romania is among the hardest hit. Young people are disproportionately likely to leave, raising the average age and hitting the already-low fertility rate. Romania's population has declined from 22m in 2000 to below 20m today. Remittances helped plug the current-account deficit, but they may also deter Romanians from entering the labour market.

"I am asked daily why I am still here," ►►

Movers and shakers

Intra-European* migrants living elsewhere 2014, % of total by destination country



Source: European Commission

*Including EFTA

▶ says Corina Stanciu, a junior doctor in Bucharest. Young Romanian doctors can earn ten times more in western Europe than at home, she says. Ms Stanciu, who had planned to stay put until she encountered the dire conditions in Romanian hospitals, is preparing to move to Britain. Under one model of the effects of migration, by 2030 GDP per capita in some eastern European countries could fall by 4%. “Europe has destroyed us,” says an official in the deserted Romanian village of Certeze.

Yet the threats to freedom of movement are more likely to come from the countries that benefit from it. The row over posted workers shows how mobility rights can run up against the EU’s impulse to “protect” citizens in rich countries from globalisation’s ravages. Economic and technological changes are making working lives more precarious; in time, more governments may choose to pin the blame on free movement. One former senior EU official involved in previous rounds of accession

talks says that an “emergency brake” rule allowing governments to halt labour inflows is inevitable. Mr Cameron’s bid may simply have been premature.

The experience of Ireland shows that emigration can be a boon, if workers gain skills and contacts abroad, and need not hamper success within the EU. The likes of Romania have much to do: improve institutions; raise the poor labour-force participation rate by cutting employment taxes; and reform social security.

Even if they could muster the political will to pull this off, countries such as Romania, with a legacy of corruption and misrule, will struggle to match the lure of higher wages in the West. Ioan, a London-based plumber “recharging the batteries” in his home village of Racsa, says he would permanently move back to Romania if he could. He has few friends in Britain, and fears it is vulnerable to terrorism. But his homeland, he says, will never offer him the opportunities he enjoys abroad. ■

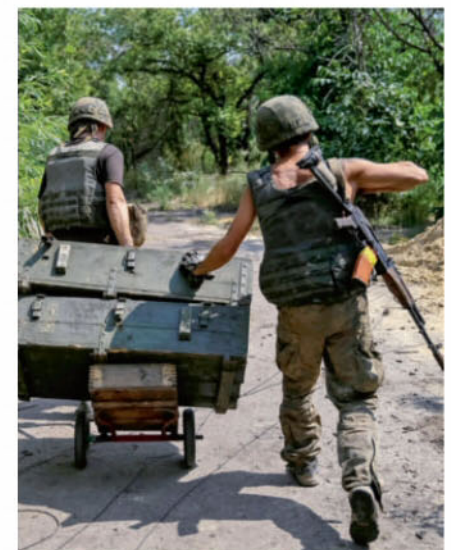
Tensions in Crimea

The cruellest month

A worrying spat between Russia and Ukraine

IN RUSSIA, history tends to take cruel turns in August. There was the failed coup of 1991 (August 19th); the Moscow apartment bombings of 1999 (August 31st); and the start of the war in Georgia in 2008 (August 1st). On August 10th, the alarm bells rang again, when Russia’s Federal Security Service (FSB) announced that it had foiled a Ukrainian plot to launch a terror attack in Crimea. Vladimir Putin, Russia’s president, decried the Ukrainian authorities, declaring that Russia “would not let such things pass” and that further meetings in the Normandy peace format—involving Russia, Ukraine, Germany and France—were “senseless”. Ukraine’s president, Petro Poroshenko, denied the claims, calling them “a pretext for more military threats against Ukraine.”

The heightened tensions in Crimea, the most ominous since Russia annexed the peninsula in early 2014, come amid mounting casualties in eastern Ukraine. The FSB said that two separate incidents took place: first, a raid on the terror cell that left one FSB officer dead and a Ukrainian intelligence officer in custody. Second, Russia accused Ukrainian forces of firing across the border into Crimea, allegedly killing one Russian soldier. Reports of Russian troop movements near the Crimean border earlier this week had led Ukraine to put its forces on high alert. On August 6th, Igor Plotnitsky, the head of the self-declared Luhansk People’s Republic, was the target of an assassination attempt that he blamed ▶▶



A familiar sight

The time in Spain

Out of sync with the sun...

MADRID
...and knackered by it

IN THE summer, Spaniards enjoy their long evenings, having a drink at a pavement *terrace* before dining at 10pm or later. Yet the evenings are far longer than they should be: by local clocks, the sun sets an hour and 20 minutes later in Madrid than in New York City, though both are on the same latitude. That is because Spain (except the Canary Islands) is in the wrong time zone. Madrid is on a similar line of longitude to Swansea in Wales. Its clocks are set to Central European Time, the same as Warsaw or Tirana, some 24 degrees or 2,000kms (1,200 miles) to the east.

Spanish time is a historical anomaly. When Franco drew close to Hitler in the second world war, he changed his country’s clocks to mimic those of Berlin. Nobody ever changed them back. The result is that Spaniards live out of sync with the sun. A “breakfast” meeting tends to be at 9am. At this time of year those hoping for a stroll in the cool of evening at 8pm face an oven-like wall of heat.

A second anomaly compounds the problem—the long lunch break. This dates from when cities were small enough to permit an afternoon siesta at home and when, in post-civil war penury, many Spaniards did two separate jobs. The result is a wearily long day, with much hanging around. In private firms, workers tend to toil from 9am to 7pm with a lunch break of an hour or two at 2pm. To cater to after-work shoppers,

department stores and supermarkets stay open till 10pm. Prime-time television runs until 11.30pm. In June the televised election debate among the party leaders finished well past midnight.

The upshot is that Spaniards sleep far less than the European average (41 minutes fewer, according to Angel Largo of Arhoe, a group campaigning for more rational hours). This also makes them less productive at work. “When we’re lunching, our European partners are working, and when we go back to work, they’re preparing to go home,” sighs Mr Largo.

His campaign wants Spain to adopt GMT (like its Iberian neighbour, Portugal) as a means to change habits, with a shorter lunch-break and more conventional working hours. It has made progress. The ruling Peoples’ Party, the opposition Socialists and liberal Cuidadanos all support switching to GMT. “It’s a relevant issue” for productivity, says Luis de Guindos, the economy minister. But it could only be approved by consensus, he adds.

The force of habit is strong. A law to cut civil servants’ lunch break to one hour to allow them to go home earlier has been widely ignored. Many Spaniards are happy with their long, convivial evenings. Mr Largo is convinced that rationality will win out. But it will take more concerted political backing to persuade Spaniards to trade their traditional lifestyle for a decent night’s sleep.

▶ on Ukrainian forces (though internal power struggles are as likely to be the cause).

The timing of the spat is notable in light of upcoming elections in both America and Russia. American officials say that Barack Obama, America's outgoing president, has made it clear that he wants progress on Ukraine before the end of his term. Victoria Nuland, the American State Department official responsible for Ukraine, has been in talks with Vladislav Surkov, a close confidant of Mr Putin. By rejecting the Normandy Four format, Mr Putin may be hoping to pressure Mr Obama into making the grand Yalta-style bargain he has long desired.

A re-run of the Ukrainian drama may also play well domestically ahead of Russia's parliamentary elections on September 18th. As the country's economic crisis grinds on, the looming vote has the Kremlin anxious. Dmitry Medvedev, Russia's prime minister, drew widespread criticism in May when he told a griping Crimean pensioner that "There's no money, but hang in there—all the best to you!" While the war in Ukraine has largely disappeared from state media in recent months, its return to the headlines could provide a welcome distraction. Ukrainians have good reason to fear; more than 9,500 people have already been killed. ■

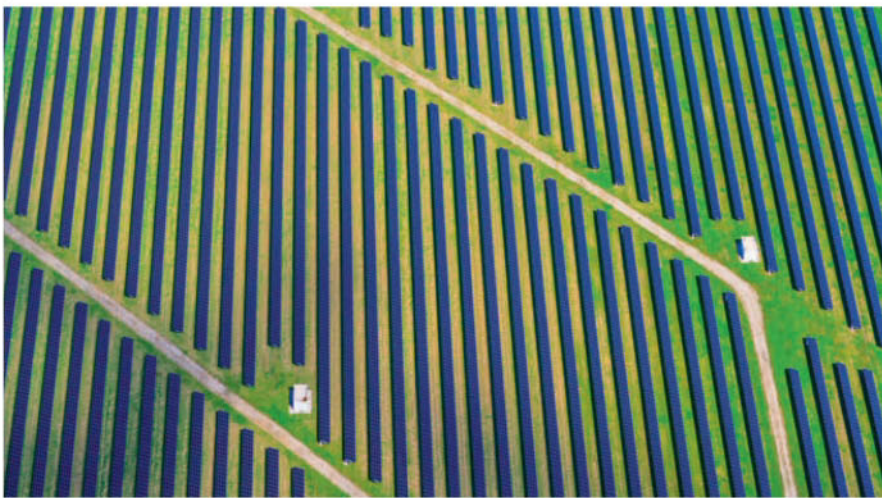
riffs to everyone supplying renewable power will be replaced with auctions in which investors place sealed bids to build new wind or solar farms. Those who offer to do it for the lowest price will win, and only they will be paid for the power they supply. (Small installations, of solar panels on roofs and the like, will stay in the old system.)

This reform is an important step toward a market economy, says Patrick Graichen of Agora Energiewende, a think-tank. But problems remain. Local politicians, especially in Bavaria, take a NIMBYish attitude to the power lines that need to be built to bring electricity from the windy north to the industrial south. Those lines must now go underground, making them more expensive. Moreover, the new reform does not address the more fundamental flaws in the *Energiewende*. The first is that even as the share of renewable energy in electricity generation rises, overall production is so far not getting cleaner, as measured by emissions. One reason is the snap decision after the disaster at Fukushima in 2011 by Angela Merkel, the chancellor, to phase out nuclear power (which emits no greenhouse gases) by 2022.

While renewables can easily compensate for this missing nuclear capacity on windy and sunny days, other energy sources are needed for the rest. Environmentally, gas-fired power plants would be the next best option, but they are more expensive to run than coal-fired plants. And so Germany continues to rely on dirty lignite and only slightly less dirty hard coal. This gives the *Energiewende* a "credibility problem", says Claudia Kemfert at the German Institute for Economic Research.

Alongside this, the *Energiewende* has so far focused almost entirely on electricity generation. But electricity accounts for only about 21% of energy consumed in Germany, with the rest used to drive cars and trucks and to heat homes. Renewable sources play a negligible role in these sectors. Electric vehicles remain more of a marketing dream than reality. Too few Germans drive them to make the air cleaner, though this may change in the wake of the Volkswagen diesel emissions scandal last year.

The policy of the *Energiewende*, says Clemens Fuest of the Ifo Institute, a think-tank in Munich, had three goals: to keep energy supply reliable; to make it affordable; and to clean it up to save the environment, with a target of cutting emissions by 95% between 1990 and 2050. "All three goals will be missed," he thinks, making Germany's energy transition "an international example for bad policy". That may be a bit harsh. Germany's policy has helped bring down the cost of solar panels and wind technology. But in order to get the revolution Germany really wants, far more drastic reforms will be needed. ■



Renewable energy

It's not easy being green

BERLIN

Even with new reforms, doubts remain about Germany's energy transition

BRANDENBURG used to be called the sandbox of the Holy Roman Empire for its poor soil and marginal geography. Today a more appropriate moniker might be "the wind farm of the European Union" for all the spinning turbines that tower over the flat landscape. In Bavaria's Holledau region endless rows of hop vines still undulate through the hills as they have for centuries; but today they share the south-facing slopes with solar panels. Germany's *Energiewende* ("energy transition" or "revolution") has transformed its countryside.

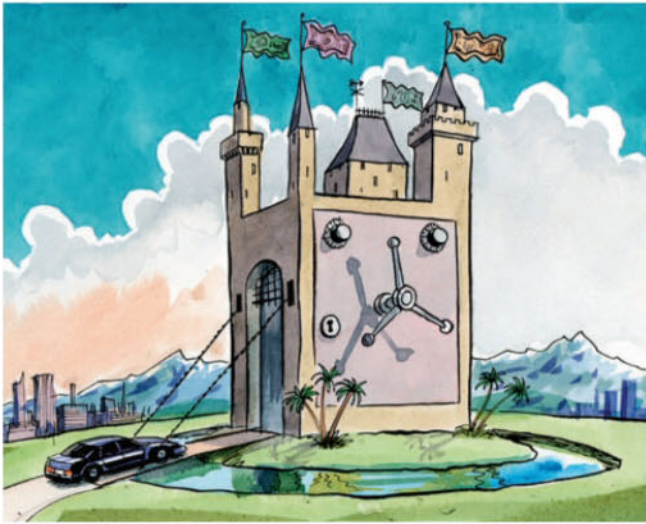
The main tool in this transition is a policy of subsidising renewable power. Germany guarantees investors in green energy that their electricity is fed into the grid before that from conventional sources, and at high prices fixed for 20 years. Thanks to this support, the share of renewable energy in German electricity generation has

gone from 3.6% in 1990 to 30% last year. But although green energy is subsidised in most of the EU and America, Germany's efforts are unusually generous. Consumers pay the price of the subsidies—more than €20 billion (\$22 billion) each year—through their electricity bills. Germans pay more for power than all other Europeans except Danes (German industry is exempt from some of the burden).

As a result, Germany's renewables law has long been in need of reform. In July, after much wrangling, the German parliament finally changed it. The government will still determine the volume of renewable-energy capacity it wants added each year, to try and slow climate change. Its target is for 40-45% of electricity to be generated from renewables by 2025, 55-60% by 2035 and at least 80% by 2050. But from next year the fixed sum paid in feed-in ta-

Charlemagne | Small but not too beautiful

Europe's micro-countries may be places where people are up to no good, but so are bigger ones



THE top of the Spanish Steps in Rome is as good a place as any to appreciate the strangeness of Europe, for it is perhaps the only place from which to survey three sovereign entities. Most of the view is, of course, in Italy. But in the distance is the dome of St Peter's in the Vatican, a separate city-state. And, just below, a large red-and-white flag billowing above Rome's glitziest shopping area signals the presence of the Sovereign Military Hospitaller Order of Saint John of Jerusalem, of Rhodes and of Malta.

Once the Crusaders' medical corps, the order governed a series of Mediterranean islands before being kicked off Malta by Napoleon. It may no longer own any territory, bar a couple of buildings in Rome and another on Malta. But the order still maintains diplomatic relations with more than 100 states and permanent observer status at the UN.

Europe is littered with such idiosyncrasies, leftovers from Europe's consolidation into nation-states. There are seven states with a population of under 500,000. Add Britain's crown dependencies and Denmark's autonomous countries; throw in Gibraltar and Britain's sovereign bases on Cyprus and the micro-territory count reaches 15. Lacking economies of scale, the micro-territories have survived by exploiting their one truly worthwhile asset: their sovereignty, the right to do as they please. Like mosquitoes, they sucked cash from neighbouring states by offering their inhabitants the opportunity to do things they could not do at home. Monaco opened its first casino in 1856.

More recently, many turned into tax havens. Some—Monaco, Liechtenstein and San Marino—had the advantage of being relatively easy to reach from major cities. By moving into the business of offshore finance, Europe's micro-territories acquired an importance out of all proportion to their size. By last year, assets under management in Andorra were 17 times the GDP of the tiny Pyrenean principality. This made them prosperous. Liechtenstein, the Isle of Man, Monaco, San Marino and Jersey are among the world's 20 richest places, measured by GDP per person.

But since 2001, those same activities have put them under unprecedented levels of international pressure. The micro-territories' potential usefulness to terrorist paymasters first steered them into the firing line after 9/11. The global financial crisis did the rest. Governments hungry for revenue to shrink their deficits

have become less tolerant of individuals and corporations that minimise their taxes. That is even truer of electorates. Among the forces behind the spread of populism in Europe is a sense of outrage over offshore tax avoidance and evasion.

But the pressure, largely from the OECD club of mostly rich-world countries and Moneyval, a watchdog body set up by the Council of Europe to fight money laundering, has succeeded in bringing about significant change. Most of the micro-territories that are either sovereign states or depend on one have been clamped into passing legislation and creating institutions that clamp down on offshore jiggery-pokery. It has cost them. Money has fled to Singapore and Dubai and to other countries in Europe, including Latvia, Georgia and Moldova.

Some had already been looking around for alternative sources of income. Most have made efforts to boost tourism. Malta, Alderney and the Isle of Man (which markets itself under the witty, if questionable, rhyming slogan of "Where you can") have tempted e-gaming firms to their shores. Jersey and others have strived to attract technology and telecoms businesses. But this does not mean that Europe's micro-states have given up on offshore finance.

Acquiring the instruments with which to combat suspicious activity is one thing. Using them is another. The focus of the next stage in Moneyval's activities will be on implementation: making sure that when cases of suspicious activity come to light they are acted on effectively. The Vatican is a case in point. For years, Italians with good contacts in the papal administration were able to use its bank, the Institute for the Works of Religion, to dodge tax, launder cash and illegally export currency. Over recent years the Holy See, which volunteered to be inspected by Moneyval, has put in place an extensive framework designed to ensure that such things never happen again. Since 2011, its financial watchdog body has referred 34 cases of suspicious activity to Vatican prosecutors. Yet not a single indictment has so far resulted.

Holy cash

Making sure that potentially troublesome little states keep to the straight and narrow is unquestionably necessary. But some of the smaller jurisdictions are right to point out that, while they have gone a long way towards cleaning up their acts, many of the bigger countries continue to do as they like. Some of the most worrying tax havens in Europe include Luxembourg, Ireland and the Netherlands. None is subject to Moneyval's scrutiny. All are members of the EU, and thus in a position to lobby Brussels to water down measures intended to limit fiscal hanky-panky.

Britain, too, is in many respects a tax haven. The regulation of British firms that set up companies is almost non-existent, and certainly lighter than in its crown dependencies. In May Roberto Saviano, the author of a bestselling work on the Mafia of Naples, provocatively described Britain as "the most corrupt place on Earth". Few Italian prosecutors would go as far, even privately. But they agree with Mr Saviano that all too many British companies are being used to recycle the proceeds of Italian organised crime, including arms smuggling. In much the same way, some of the ill-gotten lucre withdrawn from the micro-states' banks has gone, not to remote Pacific islands or self-proclaimed republics, but to American states that offer iron-clad corporate anonymity. It is time the big fish of global finance diverted their gaze from the gadding of the minnows to take a look at their own reflections in the aquarium. ■



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The Labour Party

The metamorphosis

BRISTOL

How Jeremy Corbyn took control of Labour

ON A sunny afternoon in the garden of the Bristol Flyer pub, a gang of Jeremy Corbyn fans are gathered around a table discussing the Labour Party leader's rally in the city the day before. "Three thousand people? Was that it?" asks one. "Yeah, you think Corbyn and you think 500,000!" replies a man in a Ramones T-shirt. Still, on to the next battle. Leaflets are circulated, which cheer on Labour's leader and attack Tories and Blairites. Yet these Corbynistas are not Labour supporters. They are members of a rival outfit: the tiny Socialist Party.

Since he won Labour's leadership contest last September, Mr Corbyn and his once tiny band of allies on the party's hard left have taken control of Labour. Partly this is the product of an effort by gnarled agitators from outside it to flood the party with activists and challenge the moderates in its institutions. But it is also thanks to a mostly unorchestrated surge of previously disillusioned new members, many of them young, into the party.

A new leadership contest, triggered after a vote of no confidence in Mr Corbyn by moderate MPs in June, illustrates the transformation. Mr Corbyn deserves to flop. In the past 11 months Labour has lost seats in local elections, failed to hold the government to account, become infected with anti-Semitism, tumbled in the polls and, thanks to its lacklustre campaign to

Remain, contributed to Britain's vote for Brexit. Following the referendum, most of Mr Corbyn's shadow cabinet resigned. Despite all this, he is heading for a solid win in the leadership contest over Owen Smith, the moderates' actually-quite-left-wing candidate, on September 24th. This week a court ruled that the 130,000 Labour members who have signed up since January should be allowed to vote in the contest, making Mr Corbyn's victory all but certain.

How did the formidable centrist party of Tony Blair end up in the hands of Mr Corbyn, an admirer of Hugo Chávez? Entryism has played a part. Mr Corbyn's victory brought back veterans of Labour's battles in the 1980s, when Militant, a Marxist group, tried to take over the party. One trouper of the hard left, Jon Lansman, now runs Momentum, a powerful Corbynite movement. Its local groups have come to dominate many local Labour branches and chivvy MPs to support Mr Corbyn. On August 10th Tom Watson, Labour's deputy leader, alleged that the party was being infiltrated by Trotskyists from groups like the Socialist Party (whose website boasts of its members addressing Momentum events). Some in Momentum want to reinstate "mandatory reselection", enabling local members to boot out sitting Labour MPs.

Momentum's efforts are intertwined with those of far-left parties such as the So-

cialist Workers Party (swp). John Ferrett, who leads Labour's group on Portsmouth Council, describes how things have changed: "[Party] meetings used to be friendly and focused on local politics and local campaigning. Now they are dominated by Momentum activists. Most moderate members no longer turn up and those that do get harangued if they criticise Corbyn." Most astonishing "is seeing the *Socialist Worker* [the swp's paper] being sold outside and inside the meeting."

The takeover is mirrored at the national level. The National Policy Forum, a policy-making body created by Mr Blair, has been sidelined in favour of the National Executive Committee (NEC), which has tilted left; at elections on August 8th all six of the seats reserved for constituency representatives went to Corbynistas, who now fill 16 of its 33 places. A document circulated by Mr Lansman in December (titled "Taking control of the party") proposed giving the NEC a veto on candidate selections. If he is re-elected, Mr Corbyn is expected to purge the party's headquarters, dumping Iain McNicol, its moderate general secretary.

Yet Labour's transformation owes as much to circumstance as conspiracy. The conditions for Mr Corbyn's victory were ripe: years of austerity concentrated on the young, an outgoing leader (Ed Miliband) whose compromises with electability had failed to save Labour from electoral disappointment and, crucially, new rules enabling non-members to vote in the leadership contest for £3 (\$4). Idealistic lefties poured in, tripling the party's electorate and propelling Mr Corbyn, initially a no-hoper, to a crushing victory.

Some of the new joiners are former members who quit during the Blair years. Others are young folk with no experience ►►

▶ of party politics. But only a minority, albeit a well organised one, are entryists. Most are simply attracted to the man's unvarnished style and uncompromising politics. That is evident on his Facebook page (which has more "likes" than that of Labour itself) and at his rallies. In Bristol speakers excoriated Thangam Debbonaire, a local Labour MP who had criticised Mr Corbyn, to cries of "Deselect!" from the crowd.

This points to a hard truth for Labour moderates: the party's metamorphosis is as much a bottom-up swell of enthusiasm as a takeover at the top. Without "the movement", the top-down changes would be unthinkable. The mass of new members protects Mr Corbyn and forces those who want to make their way in the party to bow to him: of three Labour mayoral candidates selected on August 9th and 10th, one (Steve Rothe-

ram, the unexpected winner in Liverpool) is a Corbyn ally and another (Andy Burnham in Manchester) is a moderate who has pandered to Corbynistas. As long as he has this large, growing base Mr Corbyn can face down his MPs and continue remaking the party for as long as it pleases him.

This is excellent news for the Tories, who are contemplating calling an early election to cash in their poll lead (14 points, according to the latest YouGov survey). And it leaves Labour's moderates—who remain a large minority of the membership and dominate the parliamentary party—with a grim dilemma. Some are toying with declaring independence from Mr Corbyn and sitting as a separate parliamentary group. But Labour is a tribal party and most MPs are inclined to dig in. They are in for a long wait. ■

Schools

Grammatical error

Lifting a ban on new selective schools would damage social mobility

NEARLY half of Theresa May's cabinet went to comprehensive (ie, non-selective) state schools; Justine Greening, the new education secretary, is one of them. Outside 10 Downing Street on July 13th, Mrs May pointed out that those in state schools had less of a chance of making it to the top than their privately educated peers. That, she said, must change: "We will do everything we can to help anybody, whatever your background, to go as far as your talents will take you."

Her first step in that direction may prove controversial. On August 7th the *Sunday Telegraph* reported that the government would seek to lift a ban on new grammar schools, which are allowed to select pupils at age 11 on the basis of ability. It would be a big change. At their height, in the early 1960s, grammar schools educated around one-quarter of pupils. Then, in the mid-1960s, the Labour government sped up their conversion into comprehensives. Anthony Crosland, the education secretary, declared he would "destroy every fucking grammar school in England". Some local authorities held out. But there remain just 163 grammars in England, educating 5% of pupils. (Scotland and Wales have none; Northern Ireland has lots.)

Many Tories are delighted by the proposal. Grammars are seen as a ladder by which clever, poor children can climb up the social hierarchy. The Conservatives need to be for the underdog, pushing a meritocratic vision of social mobility, argues Dominic Raab, a Conservative MP,

who supports more grammars. Supporters hark back to a supposed golden age of meritocracy in which grammar school boys were to be found at the head of business, the civil service and politics. In 1964-97, all five prime ministers were grammar school alumni. So is Mrs May.

Pupils at grammars do get better results than they would at comprehensives. A study by researchers at Bristol University in 2006 found that the boost to a pupil attending a grammar school was worth four

grades at GCSE, the exams taken at 16. But this comes at a cost. Those who fail to get into grammar school do one grade worse than they would if the grammars did not exist. The likely explanation is that grammar schools attract the best teachers, says Rebecca Allen of Education Datalab, a research group. There is no overall improvement in results as the benefit to the brightest is cancelled out by the drag on the rest.

Rewarding merit in this way might be defensible if it improved social mobility. But grammars impede it. By age 11, poor children lag nearly ten months behind their peers in educational progress, according to the Education Policy Institute, a think-tank, meaning they are less likely to pass grammar schools' entrance tests. Grammar schools therefore fill up with middle-class pupils. Just 3% of children at grammar schools receive free school meals (a measure of poverty), compared with 13% in other local state schools.

The gaming of the system by well-off parents can be seen in the impact on the market for private education. The opening of a new grammar school is associated with a decline in demand for the best local private secondary schools and an increase in demand for private primaries, says Ms Allen. Many parents also pay for tutoring to help their children pass the grammar's entrance exam, in the hope of moving the financial burden of secondary education onto the state. This gives richer children an edge. Even looking only at those pupils who get good grades aged 11, 40% of those on free school meals get into a grammar school, compared with 67% of the rest.

The impact on social mobility is lasting. In 2014 a Bristol University study comparing those taught in a comprehensive system with those taught in a grammar school system found that grammars increased income inequality by one-fifth.

Supporters argue that grammar schools' posh intake is because of their location in leafy neighbourhoods and their relative scarcity, which increases competition for places. Mrs May should put new ones in areas of social deprivation, says Don Porter of Conservative Voice, a pressure group that backs grammars. That might help. Yet parents seem willing to let their children travel to attend good schools. One-quarter of grammar pupils commute from another local authority.

If the government goes ahead with its plans for more grammars it will face strong opposition in Parliament. But polls suggest that voters like the idea. The government may allow some other form of selection, perhaps encouraging "chains" of state schools to concentrate the brightest of their pupils in one school that specialises in teaching gifted children. Regardless of Mrs May's fine intentions, reintroducing selection would do little to improve the diversity of future cabinets. ■



Theresa Brasier (later May), grammar girl

Bagehot | This sceptic isle

Britain is unusually irreligious, and becoming more so. That calls for a national debate



THE final parish meeting of the Holy Trinity Church, in the centre of Bath, took place on a rainy day in February 2011. Anglo-Catholic congregations had worshipped here, under the hammer-beam roof and monuments to heroes of Napoleonic wars, for nigh on two centuries. Now a £40,000 (\$52,000) bill for electrical repairs had succeeded where a German bomb had failed: the church was to close and it was time to wind up its affairs. Formalities concluded, parishioners filed in for a final mass. “Forgive us as we confess our negative feelings and fears for the future,” ran a closing message on the website. Today the building is listed for sale on the Church of England website, offers invited.

Last year the church reported a “sharp upturn” in such disposals. That hints at a milestone that Britain reached in January, when figures for weekly church attendance fell below 1m for the first time, as well as one passed in 2009, when the proportion of Britons saying they had no religion (49% in the latest data, for 2015) overtook that saying they were Christian (43% in 2015) in NatCen’s British Social Attitudes survey. Other figures also point to this spiritual *sovrasso*: since 2004 church baptisms are down by 12%, church marriages are down by 19% and church funerals by 29%. A 65-country study by WIN/Gallup last year found a lower proportion of people are religious in Britain than in all but six other countries.

Each generation is about as observant as it has always been: a fairly consistent 80% of the pre-war cohort has generally described itself as religious; about 40% of Britons born after 1980 tend to do so. And there are exceptions, of course. Some inner-city churches, particularly in areas of high immigration, are dynamic and thriving; clergymen hope that these successes can be spun off (or “planted”) to other parts of the country. Meanwhile other religions, like Islam, are growing—albeit not nearly fast enough to slow the growth of non-religious Britain.

The country is littered with evidence of the change. Everywhere deconsecrated churches are reopening as bars and restaurants. Five hundred churches were turned into luxury homes over five years in London alone. Shrinking congregations and growing repair bills are typically the fatal combination: about a quarter of Sunday services are attended by fewer than 16 parishioners. The Church of England is doing its best to manage this

trend. Christmas-only parishes, catering to the once-a-year crowd, are one avenue. A new app enables cashless millennials to chip in to a virtual collection plate.

But if it does not reverse the decline, society at large—all of it—has big questions to ponder. Christianity has been woven into British life over the course of two millennia. In the span of history the current contraction of the observant population is precipitous. In all sorts of ways it leaves a big gap.

There is the physical one. Myriad restrictions govern the sale of landmarks and artworks. Yet the parish church, that icon of Britain’s national character, is becoming a memory. Sometimes such buildings remain public, as cafés, preschools and the like. But often they do not. In 2013 a London church-turned-house, complete with a golden swimming pool in the crypt, sold for £50m. Is it reasonable to let these spaces close to the great unwashed for good? The nation’s cathedrals pose similar quandaries. To maintain their leaky roofs, draughty windows and artistic treasures typically costs more than £1m annually (York Minster, which gets rubbed down with olive oil to protect against acid rain, faces bills of £20,000 a day). Recently the government has doled out discretionary payments to cover repairs, most recently a £20m extension to a fund commemorating the first world war. But is it appropriate for these cornerstones of the nation’s heritage to rely on ministerial whim? Or, for that matter, for taxpayers to subsidise organised religion?

Aisle be back

Then there is the non-liturgical dimension. Churches are spaces for reflection and meditation. In an age when pubs, too, are struggling to stay open, they are a bastion against social atomisation. Before it closed, Holy Trinity in Bath used to host dance classes, band rehearsals, counselling groups and lectures. Should civil society be providing new sources of guidance and support? In 2008 a group of philosophers founded the School of Life, a sort of secular answer to organised religion (tickets to an upcoming class on “Mastering the Art of Kindness” sell for £10). Are more such initiatives needed? Churches also complement the welfare state. The number of emergency food packages distributed in Britain by the Trussell Trust, a Christian charity, rose from 26,000 in 2008-09 to 1.1m in 2015-16. Such food banks are found in 14% of British churches. Should the country consider measures to substitute this role? Or should it underwrite it?

Finally there is religion’s political vocation. The monarch is the head of the Church of England. Bishops sit in the House of Lords to provide “an independent voice and spiritual insight”. Church figures enjoy media pulpits for their views on ethical matters. Should these conventions be upheld for the sake of tradition and continuity? Or should church voices be complemented, even supplanted, by other philosophical and moral authorities?

These questions are mutually inextricable. They bear not just on government but on civil society, public services, cultural institutions, philanthropists and the ordinary citizen. So it is time, surely, that they benefited from concerted debate. Britain is hardly alone in this. It is a subject with which most Western countries will soon need to grapple. The Pew Research Centre (whose research goes beyond pews) projects that Australia, France and the Netherlands will lose their Christian majorities by 2050. Even in America, the non-religious part of the population rose from 16% to 23% between 2007 and 2014. Britain is just farther down the road to a post-religious society than most. It must lead the way. ■



Paedophilia

Shedding light on the dark field

Understanding sexual attraction to children is essential if they are to be kept safe

IN AN office in Epsom in southern England, the phone rings. Calls come in from men who have been arrested on suspicion of possessing indecent images of children; those who are fathers will probably have been barred from seeing their children unsupervised until their trials. Or the caller may be a mother whose adolescent son has been charged with molesting a child; if he has siblings social workers may insist that the family is broken up. Some calls are from men desperate to talk to someone about their own sexual desire for children, and terrified that without help they may act on them.

This is Stop it Now UK, an advice service run by the Lucy Faithfull Foundation, a charity. Callers need not identify themselves (though if they do, and a crime has been committed or a child may be at risk, the staff tell the police). Of 700-800 calls answered each month (another 1,500 go unanswered for lack of resources), most are from men who have recently been arrested—police have often told them about the service in the hope that it can keep them from committing suicide. “We talk about self-care and keeping busy,” says Jenny Michell. “It’s about getting an acknowledgment at the other end of the line that they are still human,” her colleague Sue Herbert, a social worker, chimes in.

The idea of a confidential helpline for some of the world’s most reviled people came from Fran Henry, an American cam-

paigner. In the 1960s, when she was aged 12-16, she was sexually abused by her father. “The abuse I suffered was egregious and affected every aspect of my life,” she says. But when as an adult, after counselling, she confronted her father, she realised that what she really wanted was not to see him in jail, but to make it less likely that other children suffered as she had.

Ms Henry started to visit sex offenders in prisons, asking a single question: what, if anything, could have stopped you? Many said that they had struggled with themselves before offending and believed that they might never have started if they had received counselling. And they thought they could have been caught sooner, if anyone had picked up the warning signs and intervened. From those conversations was born the first helpline, which started in Vermont in 1992 and now runs nationally. The British version followed a decade later. Survivor groups criticised the idea as “offender-friendly”, Ms Henry says; funders, too, were hard to convince. “Some would say: ‘I can’t take this to my board; it’s too yucky.’ Many people refuse to educate themselves on this issue.” But she persisted. “I took the attitude that what we are doing now is not protecting children.”

Back then, child-abuse was mostly covered up or ignored. Now it is known to be extremely common. Crime surveys suggest that nearly a fifth of girls and nearly a

tenth of boys worldwide suffer a contact sexual offence before turning 18. The few studies that focused on younger age groups suggest that many were first assaulted before puberty. A recent British survey found that 3% of women, and 1% of men, had suffered rape or attempted rape by an adult (that is, excluding encounters by two under-age children) before turning 16. Few victims tell anyone; and hardly any assaults lead to convictions. Tough sentencing and parole conditions, first introduced in America and copied widely, have been shown by many studies not to have cut recidivism or victimisation rates.

Suffering innocents

Another obstacle to keeping children safe is that misconceptions about the causes of child-abuse abound. Perhaps the most serious is the idea that the perpetrators are all paedophiles. In fact, paedophiles are probably a minority. The term is clinical, not legal or criminological: paedophiles are adults who are only or mainly aroused by prepubescent children. But a third of sexual assaults against children are thought to be committed by other children, who will not be diagnosed as paedophiles because their sexual interests may well mature as they do. (They may still face criminal sanctions.) In another big chunk, the victims are past puberty. Their abusers may be hebephiles (adults attracted to children in early puberty), or simply unconcerned that a physically mature child is too young, legally or morally, to consent.

Sometimes erotic interests are hard to untangle from other motives. Some child-abusers are socially inadequate and fear adults will reject their sexual advances. Many describe feeling like a child themselves when they abuse, says Heather Wood, a psychotherapist at the Portman Clinic in London, which treats patients ►►

▶ with paraphilias (abnormal sexual interests). Or they may be in the grip of what psychotherapists call “manic defence”: an escape from inadequacy and loneliness into exhilarated states such as sexual arousal. The child is reduced to a bit-player in the abuser’s psycho-drama.

Identifying likely perpetrators and working out what drives them would mean they could be offered tailored support—which is where helplines such as Stop it Now come in. “They live among us, so it’s better that we know them and treat them,” says Ms Michell of Stop it Now UK. And though paedophiles are a minority of those who commit sexual offences against children, understanding them is particularly important, because they are among the most predatory and prolific abusers.

The stigma of paedophilic desires means that just how common they are is not known. Michael Seto, an expert on paraphilias and sexual offenders at the University of Toronto, says that probably 1% of all men are predominantly or only attracted to prepubescent children, a share that may double if children in early puberty are included. Female paedophiles are probably more rare, since almost everyone diagnosed with any type of paraphilia is male. Women also seem to commit only a tiny fraction of sexual offences against children, whether the motive is paedophilic or something else. Only around 5-7% of those accused or convicted of such crimes are female; victimisation surveys suggest they are responsible for perhaps a tenth of all offences, or slightly more.

Some experts think that paedophilia usually has an early biological cause, perhaps genetic or in the womb. Others emphasise the role of life events. The two may intertwine, says Professor Seto, as with schizophrenia, say, or depression. “Just because there are biological factors doesn’t rule out the role of experience.”

One theory is that men who are attracted to children have the evolutionarily driven sexual preference for youthful traits, such as unlined skin—without, for some reason, the usual liking for the curves that indicate fertility. That could help explain why fewer women are paedophiles: women typically find men around their own age most attractive, whatever age that is.

Another theory starts from the observation that most people find children beautiful, but in a way that elicits protective rather than sexual feelings. James Cantor of the University of Toronto has scanned paedophiles’ brains and found abnormalities in the connective white matter, which might indicate “cross-wiring” that causes the wrong response to be triggered by the sight of a child. He and others have also shown that paedophiles are more likely than other men, or than those who have sexually offended against adults, to be short, left-handed or of low IQ. All these traits are

seen somewhat more often in people with neurological disturbances.

Those who see paedophilia as learned behaviour point to two other observations. The first is that a third to a half of known paedophiles were themselves abused as children, a much higher share than among other men. Maltreated children learn that adults are frightening, says Donald Findlater of the Lucy Faithfull Foundation. Then, as their sexual interests develop during puberty, they may focus on children, whom they find less threatening. The second observation is that same-sex preference is far more common among paedophiles than among men who prefer adult partners: more than half are thought to prefer boys. That suggests a degree of identification with the object of desire.

To the extent that paedophilia is an orientation, like being straight or gay, attempts to change it are probably pointless. For “exclusive” paedophiles—those whom adults leave cold—the best that can be hoped is probably that they accept they will never have a satisfying sexual relationship. But those who also feel some attraction towards adults may be helped by cognitive behavioural therapy that teaches them to focus on their admissible desires. There is little evidence supporting behavioural and psychological therapies. But most studies have been small and poorly designed—and on convicted child-molesters, who are likely to be more impulsive and anti-social, and less intelligent, than those who have not been caught. They differ even more from paedophiles whom morality and self-control have enabled so far to avoid offending. Randomised controlled trials are urgently needed, says Professor Seto.

Both exclusive and non-exclusive paedophiles need to be disabused of mistaken beliefs about children. In 2006-07 Sarah Goode of the University of Winchester, in southern England, administered questionnaires to 56 anonymous self-described

paedophiles she recruited on online forums. Many held wrong and dangerous beliefs about children, saying, for example, that child pornography was harmless if the child had “consented” and that they preferred the children to look as if they were enjoying themselves. In fantasies, they imagined children seeking and initiating sexual contact with adults.

Such false thinking may flow from the “sexual over-perception bias”: a cognitive flaw which makes men (but not women) prone to seeing sexual interest where there is none. That is bad enough when it means thinking a friendly female colleague is making advances; when it means reading a child’s playfulness and warmth as seductive, it is very dangerous.

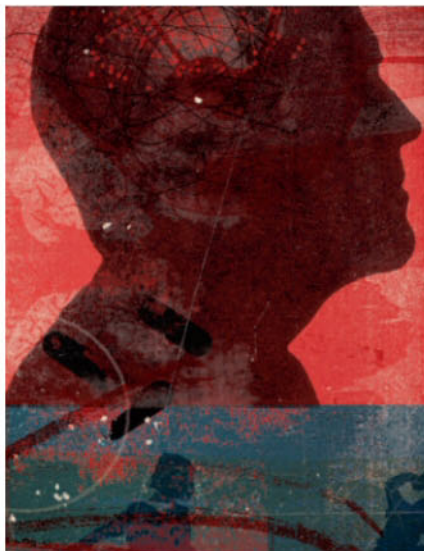
In the 1970s the North American Man-Boy Love Association and, in Britain, the Paedophile Information Exchange (now disbanded) peddled the notion that sex between an adult and child can be loving and consensual, even educational. They gained remarkable support from feminist and civil-rights groups for their aim of abolishing age-of-consent laws, which they argued restricted children’s freedom. Though they failed, until recently anyone seeking information online about paedophilic urges would struggle to find other sympathetic voices. That is starting to change.

For such moments as this

Virtuous Paedophiles (VirPed), a website set up in 2011 for paedophiles determined not to act on their desires, offers “advice and camaraderie: the only place that you are not insulted and degraded,” says Todd Nickerson, one of the few members to go by his real name. It also offers hope that paedophiles can live an offence-free and “somewhat happy” life. “There is a message from society that you are doomed to offend,” he says, which serves children poorly, since “despair can become a self-fulfilling prophecy.”

Some forum members remind Mr Nickerson of himself 30 years ago: going through puberty and realising, to his horror, that the age of the girls he found attractive seemed stuck at pre-teenage. He and other experienced members challenge the beliefs that enable abuse (“paedophiles are very good at deluding themselves that a kid is coming on to them”) and share tips: always act as if a child’s parent is in the room; avoid situations such as children’s birthday parties; never fantasise about a child you know. Mr Nickerson says he has never touched a child sexually, “and never will”; he has never been accused of molestation. Going public has attracted vilification—but also, to his gratitude, “kind and sweet” messages from survivors of abuse, thanking him for the work he is doing.

Some wonder whether exclusive paedophiles might be helped to maintain ▶▶



▶ their self-control by “abuse-free” erotica, such as child sex dolls, or cartoon or computer-rendered films or images. Such “virtual child pornography” is illegal in Britain, Canada and many other countries (though some is allowed in America, where a decade ago the Supreme Court overturned a blanket ban, citing constitutional protections for free speech). Research is urgently needed to establish whether it would function as an outlet for dangerous urges or instead as an incitement to abuse, says Professor Seto. “Clearly there’s an ‘ick’ factor. But we’ve got to ask ourselves: what are the options here? We are asking of paedophilic men that they remain entirely celibate.”

In some countries convicted paedophiles may be offered drugs: either SSRIs, antidepressants that dampen obsessive rumination and also lower libido; or anti-androgens, which block the action of male sex hormones. Anti-androgens can have serious side-effects, including heart disease. And their tangible effects, which include erectile difficulties and a feminised body shape, make double-blind controlled trials impossible. Many men refuse to take them, and others start but soon stop. But for offenders committed to going straight, they seem to cut recidivism.

Some paedophiles beg for drugs and experience the loss of their sex drive as a blessed relief, says Don Grubin, a forensic psychologist who is overseeing a British drug-treatment programme. But drug therapy will only suit about one in 20 offenders, he thinks: those with very high sex drives and obsessive thoughts focused exclusively on children.

In 1972, and again in 1984, Wayne Bowers, a Michigander who runs CURE-SORT, a small charity that seeks to cut child-abuse, was convicted for molesting young boys. Before his second jail term he joined a programme for sex offenders at the Johns Hopkins sexual disorders clinic in Baltimore. The anti-androgens they prescribed helped, he says: “I still knew the attraction, but didn’t feel aroused.” That allowed him to benefit from group-therapy sessions, where he learned to think about his actions from the child’s point of view and to stop justifying his behaviour.

Many countries offer libido-lowering drugs to convicted sex-offenders who volunteer for them. Some parts of America, Australia and Europe go further by making such treatment mandatory, perhaps as a condition of parole. That may seem an obvious solution—but it is worse than ineffective. Since child-molesters are often driven less by sexual impulses than by a need for intimacy or control—or by sadism—a man forced to take drugs that affect his body and self-image may respond with rage and become more dangerous.

Germany is one of the few countries that tries to treat all paedophiles, even those not in trouble with the law. Its crimi-



nologists refer to crimes unknown to the authorities as the *Dunkelfeld* (dark field); for many types of crime this is much larger than the obverse *Hellfeld* (light field). This is particularly true of child-abuse.

Prevention Project *Dunkelfeld*, which runs at 11 clinics nationwide, gives confidential treatment to people troubled by sexual desires for children below or in the early stages of puberty. A national television-advertising campaign urges them to get in touch. “No one is guilty because of their sexual inclination,” it says. “But everyone is responsible for their behaviour.” Half the men it has accepted for treatment for paedophilia or hebephilia had never been accused of abusing a child, and said they had never done so.

Strict German laws about doctor-patient confidentiality mean that those who contact Project *Dunkelfeld* can be sure they will not be reported to the police. That means therapists may be remaining silent about ongoing abuse, or evidence that someone with access to children has a history of offending. Critics—a few in Germany and more abroad—find that too much to stomach. But supporters say that therapists would surely never have received such evidence were it not for that confidentiality, and that untreated paedophiles are more likely to offend.

That such arguments are not merely hypothetical can be seen from the experience of Johns Hopkins, where Mr Bowers was treated in the 1980s. During the following decade state laws were passed requiring police to be told of child-abuse disclosed during treatment. The rate of self-referrals to its sex-offenders’ programme fell from about seven a year to zero, and patients also stopped disclosing previously unknown offences. A paper published in 1991 concluded that no children were being protected as a result of the law, and that therapy was probably made less effective.

Many countries now require any suspi-

cion of child-abuse to be reported, under pain of criminal sanctions. Laura Hoyano, a lawyer at Oxford University who specialises in child-abuse and exploitation cases, has studied such laws—and concluded that they, too, have done little or nothing to protect children from abuse. Investigations into scandals in churches, schools and children’s homes have found that many people had suspicions, but said nothing—even in places with mandatory-reporting laws. The failure to speak out stemmed from a desire to protect institutions’ reputations, or fear of retribution. Strong protection for whistle-blowers, says Ms Hoyano, is at least as important as a duty to report.

Mandatory-reporting laws have had perverse consequences, too. Police and social services have been swamped. A report in 2013 in Queensland, Australia, which requires reporting of “reasonable suspicion” that a child is, or is at risk of, being harmed, found that in the previous year reports were made about 71,928 children—7% of all those in the state. More than three-quarters related to suspicions so vague or minor that they did not meet the threshold for notification. Only 6,974 reports were substantiated. The report concluded that innocent families had been harmed by the unavoidably intrusive investigations.

Mandatory-reporting laws may also make victims less likely to seek help. Children are often kept silent by their assailants saying that if they tell anyone, the authorities will find out and put them in care. Britain has no mandatory-reporting laws, but professional guidelines mean teachers cannot promise a child confidentiality. “For me that is one reason that some children don’t tell,” says Mr Findlater of Stop it Now UK.

Typically, says Mark Rosenberg of the Task Force for Global Health, an American charity, someone else knows about or at least suspects the abuse, but keeps quiet. They may shy away from bringing disgrace on the family—or struggle to reconcile the image of the demonic child-abuser with someone they know and even love. “People won’t reach out if they think that only monsters molest kids,” says Jenny Coleman of Stop it Now USA.

There go I

According to Mr Nickerson, people opposed to any attempt to understand or treat paedophilia often say: What if your child was a victim? “I understand this, but let’s reverse it,” he says. “What if your son or daughter came to you one day and said, ‘I have to tell you something—I think I may be a paedophile.’ Would you advocate some of the policies you now advocate if it was your child who was dealing with this unfortunate sexuality?” Children, too, would be better protected by greater understanding and by help for those who might otherwise harm them. ■



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The other side of Warren Buffett
Don't Buff it up

NEW YORK
An investing hero is not a model for how to reform America's economy

WARREN BUFFETT has long dabbled in politics. In the mid-1970s he developed a taste for exclusive Washington dinner parties. In the 1980s he spent a weekend being Ronald Reagan's golf partner. He helped Arnold Schwarzenegger become the governor of California in 2003 and in 2008 John McCain and Barack Obama both hinted that they would like Mr Buffett to become their Treasury secretary.

This year America's most famous investor has spoken out loudly on political affairs—aged a liberating 85 and with a left-leaning credo. The latest of his annual letters to investors, which usually confine themselves to folksy jokes and dissections of insurers' reserve ratios, has a passionate repudiation of the bleak national mood. "For 240 years it's been a terrible mistake to bet against America," it declares. On August 1st Mr Buffett was on stage with Hillary Clinton in Omaha and laid into Donald Trump's character and business record.

If the intensity of Mr Buffett's interventions has risen over time, so has the seriousness with which they are taken. This partly reflects his financial clout. Berkshire Hathaway, his investment vehicle, is worth \$363 billion and is the world's sixth-most-valuable firm. He is at least 20 times richer than Mr Trump. It also reflects Mr Buffett's popularity: 40,000 people attended Berkshire's annual meeting in April, compared to 5,000 two decades ago. Since the death of Steve Jobs, the boss of Apple, Mr Buffett has become the lone hero of big business

in America. He stands for the promise of a nostalgic, fairer kind of capitalism.

But Mr Buffett is not as saintly as he makes out. He has to act in his own interests, and he does so legally, but if all companies followed his example America would be worse off. An example is his oft-expressed sympathy for workers. In 2013 Berkshire partnered with 3G, a Brazilian buy-out firm renowned for swinging the axe at acquired firms. Since 3G engineered the merger of Kraft and Heinz (Berkshire owns 27% of the combined firm) last year,

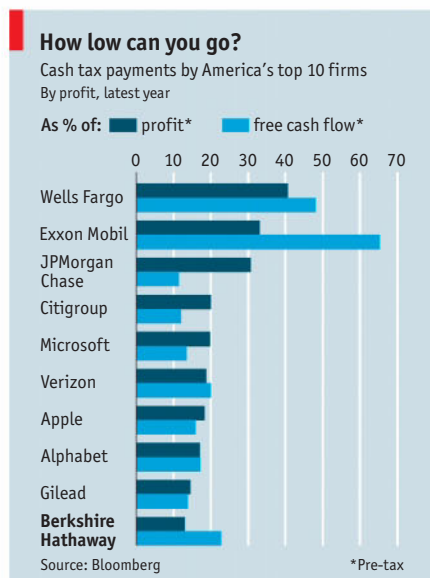
staff numbers have dropped by a tenth.

Last year a hedge-funder, Daniel Loeb, attacked what he called a disconnect between Mr Buffett's words and his actions. "He thinks we should all pay more taxes but he loves avoiding them," he said. Mr Loeb was right: Berkshire's tax payments have shrunk relative to its profits. Last year the actual cash it paid to the taxman was equivalent to 13% of its pre-tax profits—this is probably the fairest measure of its burden—making it one of the lightest taxpayers among big firms (see chart).

Mr Buffett is a vocal critic of Wall Street, but during the crisis of 2008 he stepped in to support Goldman Sachs. Berkshire was a core shareholder in Moody's, a credit-rating agency at the heart of the subprime debacle. And the group has a big financial-services business of its own, mostly active in insurance, with \$250 billion of assets, as well as 10% of Wells Fargo, America's largest bank (by market value). This portfolio has escaped being classified as systematically important by national regulators.

Mr Buffett often expresses strong views on how firms are run; he joined 12 other prominent bosses last month to demand better governance. One recommendation was that corporate accounts should follow generally accepted accounting principles (GAAP). But Berkshire encourages investors to use its own performance methodology, based on the concept of "intrinsic value". Mr Buffett's first wife was on Berkshire's board until her death in 2004, and his son may become its next chairman.

Such inconsistencies are inevitable in a long and vigorous business life. But there is another problem with Mr Buffett: his fondness for oligopolies. After being disappointed by returns from textiles in the 1960s and 1970s, and then by shoe manufacturing and airlines, he concluded his firm should invest in "franchises" that are protected from competition, not in mere



► “businesses”. In the 1980s and 1990s he bet on dominant global brands such as Gillette and Coca-Cola (as well as Omaha’s biggest furniture store, with two-thirds of the market). Today Berkshire spans micro-monopolies such as a caravan firm and a prison-guard uniform maker, and large businesses with oligopolistic positions such as utilities, railways and consumer goods.

As more money has followed his example, America’s economy has become Buffettised. Among investors there is a powerful orthodoxy that you must own stable, focused businesses with high returns and market shares and low investment needs. Managers have obliged. Of America’s top 900 industries, two-thirds have become more concentrated since the mid-1990s. Last year S&P 500 firms reinvested only 45% of the cashflow they generated. Protecting margins and cutting costs is the priority. Economic growth suffers as a result.

Like Jobs, Mr Buffett seems to be able to create a reality-distortion field around him to deflect criticism. In bookshops, for every copy of Mr Trump’s auto-hagiography,

“The Art of the Deal”, or Kim Kardashian’s book of auto-pornography, “Selfish”, there are scores of tributes to a ukulele-playing Nebraskan who reads accounts for fun. And for his investors his career has of course been a triumph, with Berkshire achieving a compound annual return of 21% since 1965, double that of the S&P 500. Parts of Mr Buffett’s approach might benefit society if widely adopted—for example owning shares for long periods. He has been dogged in sniffing out wrong conduct, for example at Valeant, a drugs firm that has run into trouble. His plan to pass on most of his wealth to the Gates Foundation, a charity, is exemplary.

But he is far from a model for how capitalism should be transformed. He is a careful, largely ethical accumulator of capital invested in traditional businesses, preferably with oligopolistic qualities, whereas what America needs right now is more risk-taking, lower prices, higher investment and much more competition. You won’t find much at all about these ideas in Mr Buffett’s shareholder letters. ■

Worth, its largest hub, after a similar glitch. And since the merger of United and Continental in 2010, their tacked-together IT systems have failed regularly.

What is more surprising is that it took Delta so long to get its computers running again. It has lately spent hundreds of millions of dollars on IT upgrades. But airlines’ systems are hugely complex beasts. If data is not properly backed up, for instance, it can take days to reload and make sure hundreds of connected subsystems work. “Technology is like painting a bridge. Work is never done,” Delta’s chief information officer, Rahul Samant, said in June.

One reason for the complexity is that airlines were early adopters of computerised systems. They built their first electronic reservation systems in the early 1950s; Delta’s current system once belonged to a defunct airline that went bust in 1982. But as airlines merged and more new functions were added—from crew scheduling to passenger check-in and bag tracing—they have come to resemble technological hairballs in which one small problem quickly spirals into bigger ones that even experts struggle to disentangle.

Airlines are not the only firms plagued by such problems. Banks, too, were among the first companies to invest in IT. And they too grapple with systems cobbled together over decades. When RBS, a British bank, tried to upgrade its systems in 2012, a malfunction left many thousands of customers without access to their accounts.

Yet bosses in both industries say they are reluctant to replace their systems. For an airline, it would cost billions of dollars and take five years to do. Worse still, no single IT firm has the skills to provide all the software needed for a complete replacement. With the average tenure of airline CEOs so short, the risks of such a project going wrong outweigh the benefits. It is hard for any firm to entirely eliminate IT glitches; for many it simply isn’t worth it. ■

Airlines and technology

All systems stop

Why big firms like Delta find it so hard to eliminate glitches from their IT systems

EARLY in the morning of August 8th, streams of bleary-eyed passengers arrived at London’s Heathrow airport, hoping for a smooth ride across the Atlantic with Delta Air Lines, America’s second-largest carrier. But most did not realise they were the first victims of the most disruptive IT glitch that has hit an airline in recent years until they got to check-in desks unable to access their details. The snafu—caused by a computer outage 4,000 miles away in Delta’s Atlanta HQ—prompted the airline to cancel more than 2,000 flights, delay several hundred thousand passengers’ journeys, and in some places go back to printing boarding passes on dot-matrix machines fit to be museum pieces.

The chaos highlights how vulnerable big firms are to their IT systems crashing. Delta initially blamed its electricity supplier for the outage. But the airline’s chief operating officer, Gil West, later admitted that a malfunctioning power-control system at its data centre was really to blame. The 22-year-old piece of kit started a small fire, knocking out its primary and backup systems. Either way, unable to access customer records or to compile passenger lists ahead of aircraft take-offs to meet security requirements, the entire airline ground to a halt for around five hours.

Such accidents can happen, even to an company such as Delta whose systems were thought by aviation analysts to be better than those of its rivals. Only last month Southwest was forced to cancel 2,300 flights because of a faulty router that brought its systems down for 12 hours. Last September American Airlines suspended flights for several hours from Dallas/Fort



Waiting for an upgrade

PSA Group

Peugeot rallies

PARIS

A remarkable recovery at a French carmaker may be difficult to sustain

CARLOS TAVARES, appointed to run PSA Group two years ago after a bailout by China's Dongfeng Motor and the French government, once claimed that he would rather have pursued a career as a racing driver than as a businessman. Motorsport is a pastime he still pursues, and his racing mentality has seemingly rubbed off on the car company he now steers. PSA Group, the parent firm of Peugeot and Citroën, which was loss-making and on the brink of bankruptcy two years ago, has made a surprisingly rapid recovery.

Cost cutting and streamlining manufacturing have boosted profits, revenues and margins. After averaging around 1% for more than a decade, profit margins before interest and taxes reached 5% in 2015 and 6.8% in the first half of 2016. In the ruthlessly competitive mass market, those are outstanding numbers. PSA's recent five-year plan, "Push to pass" (named after an engine-boost button that aids overtaking), envisages margins of 6% by 2021, and revenue growth that will outstrip years of slow expansion. This now appears unambitious.

Mr Tavares regards too much time spent in head office away from the factory floor as "poison", and his approach has worked well. His hands-on improvements to operations have been impressive. Yet there are limits to what more can be done by slashing costs and improving efficiency.

Most analysts see the firm as too Eurocentric and too small. Its reliance on its home continent, where it sells two-thirds of its cars, was once judged a crippling weakness. It is true that Europe has been buoyant of late, and PSA has been insulated from the problems besetting rivals that rely on Brazil, Russia and other turbulent emerging markets. But car-buying in Europe may have reached another peak. Sales in China, a big source of profits, are slowing down, so PSA hopes to expand in Asia, Africa and the Middle East.

But even if the company can expand in the right markets, it will not do much to address its other problem, which is a lack of overall scale. The prevailing wisdom is that bigger is better, and PSA is much smaller than its competitors, turning out just 3m vehicles annually.

Little is certain about the future of the car industry except that the cost of preparing for it will be exceptionally high. An emissions scandal at vw is likely to mean tougher emissions standards; these will require much higher spending to develop

compliant engines or electric and hybrid drivetrains. Autonomous-driving technology will cost even more.

Firms like Toyota, vw and General Motors make around 10m cars a year across which to spread these costs. They can apply real pressure to suppliers. Renault-Nissan recently took a stake in Japan's Mitsubishi, pushing it closer to the crucial 10m mark. Fiat Chrysler hankers after a merger with anyone willing (and is often touted as a partner for PSA).

And if a firm has premium marques, as do BMW and Mercedes, it can more easily pass on costs to eager buyers or absorb them with its fatter profits. PSA's premium brand, DS, carved out from Citroën last year, is still too small to bring this effect. The French company's lower spending on R&D than its larger rivals also means it will struggle to pack its cars with whizzy features or develop new models in every segment like a truly global carmaker. Mr Tavares concedes that making 10m cars is useful for spreading the industry's high costs but is less certain that suppliers can be leant upon indefinitely without going bust themselves. He says that he prefers the agility of a smaller carmaker in a "chaotic world". He has done a good job of steering through the chaos up to now, but he may find that ultimately size is as important as staying fast and nimble. ■

Walmart buys Jet.com

Boxed-in unicorn

Walmart's acquisition of Jet.com heats up its battle with Amazon

SPENDING \$3.3 billion on an unprofitable business might seem an undisciplined splurge. By buying Jet.com, a shopping website, Walmart, the world's biggest retailer, has joined the ranks of investors betting on so-called "unicorns", or private startups valued at over \$1 billion. The acquisition is the most expensive deal ever for an American e-commerce startup, and a sign of just how worried Walmart executives are by the rise of Amazon. It's also an admission that despite heavy internal investment, the Bentonville giant's own site, Walmart.com, is nowhere near enough.

Walmart still accounts for a tenth of American retail sales, but that has declined from 11.6% in 2009, according to Cowen Group, a financial-services firm. Amazon's share is about half of Walmart's, but it is growing fast. Moreover, last year, of every \$10 that American shoppers dispensed on goods, \$1 was spent online. Even the Walmart faithful are beginning to use Amazon. Last year just over a tenth of Walmart's cus-

Click and deliver

Global retail sales, \$trn

of which: e-commerce



tomers shopped on Amazon too.

Online, where the future battle lies, the news for Walmart is scarcely better. Last year its global e-commerce sales increased by 12% to \$13.7 billion, compared with a 20% jump to \$107 billion of sales at Amazon. At the start of the year Walmart's e-commerce sales growth slowed to 7%. For its chief executive, Doug McMillon, this may have been a trigger to make a quick acquisition. Amazon's fast and efficient shipping through Amazon Prime has also proven hard to match, as has its range of products (Amazon is said to offer well over 200m different items, while Walmart.com serves up around 11m).

Buying Jet.com is unlikely to change the dynamic between the two giants. In technology circles, some view the shopping website as an ugly foal masquerading as a unicorn. It is believed to lose around 30 cents for every dollar of sales it makes (it does not release the figures), because of its alluringly low prices. The more it sells to its customers, the more it loses. Its investors will be glad of the generously priced exit offered by Walmart.

One attraction is Jet.com's real-time pricing algorithm, which tempts customers with lower prices if they add more items to their basket. The algorithm also identifies which of Jet.com's vendors is closest to the consumer, helping to minimise shipping costs and allowing them to offer discounts. Walmart plans to integrate the software with its own. Buying this platform makes more sense than trying to develop it internally, says Charles O'Shea of Moody's, a rating agency.

Walmart is also buying talent. Jet.com chief executive Marc Lore has e-commerce pedigree. He co-founded Quidsi, the parent company of Diaper.com and Soap.com, among others, which Amazon itself snapped up for \$545m six years ago. Mr Lore will now run both Jet.com and Walmart.com. Walmart also desperately hopes that Jet.com will help it attract millennials, a demographic it wants to do better with. Jet.com boasts a base of millennial shoppers which Walmart claims is growing by around 400,000 per month. ►►

▶ Yet buying online-only Jet.com does not solve another problem that Walmart has, which is how to fuse its e-commerce business with its big-box stores. Nine out of ten Americans live within ten miles of one of its ubiquitous boxes, meaning the firm's online shoppers can collect their purchases nearby. Walmart says that shoppers who spend both online and in physical stores end up buying more than those who keep to bricks and mortar. But the firm faces two hard truths. First, building an e-commerce business is horribly expensive. Second, as more people shift to shopping online, they may shun Walmart's vast, neon-lit boxes. This may make the titan of efficiency less profitable and force it to close more stores. It is not unlike the scenario that, not so long ago, Walmart inflicted on small chains of local shops. ■

The Berlusconis' shrinking empire

Things fall apart

MILAN

Diminished politically, the Berlusconi dynasty is also losing corporate heft

NOT much goes Silvio Berlusconi's way these days. The billionaire ex-crooner and ex-prime minister has spent two years trying to sell AC Milan, a football club he bought in 1986. But its players have struggled, finishing seventh in Italy's league last season, and business has slumped. A shadow of its old self, the club last year lost €89m (\$99m). Its slide has matched the dwindling fortunes of its owner.

Finally on August 5th the *Cavaliere*, as Mr Berlusconi is still known, said Chinese investors Sino-Europe Sports Investment Management Changxing would pay €740m for the club, and take on €220m of its debt. The sale marks a generational turn, as power in Mr Berlusconi's corporate empire starts to shift towards his children. His eldest daughter, Marina Berlusconi, chair of the family holding company, Fininvest, appears delighted to be rid of AC Milan. The younger Berlusconis will probably prove to be more modest business actors than their father.

A process of succession is under way. A heart attack in June nearly killed Mr Berlusconi, who turns 80 next month. "He is struggling very much to get his affairs in order," says François Godard of Enders Analysis, noting that the family has been scrambling to raise cash and pay down debt. In February 2015 Fininvest sold a 7.8% stake in its big television company, Mediaset, for €377m. Fininvest, which just about broke even last year after prolonged losses, vowed in June to "consolidate" leadership in its core business. Streamlining its inter-

ests would make sense. It holds 30% of Mediolanum, a financial-services firm, plus 50% of Mondadori, Italy's largest publishing house. But what really counts is the family's 34.7% stake in Mediaset, the leading terrestrial broadcaster.

That is run by Pier Silvio Berlusconi, the ex-premier's bodybuilder son, nicknamed "Dudi". It has various free-to-air channels but has suffered from weak advertising because of Italy's economic slump. It seems to be struggling from the loss of a "Berlusconi premium". A study three years ago by the Centre for Economic Policy Research, a think-tank in London, estimated that Mediaset had previously gained an extra €1 billion in revenues over the years as advertisers tried to please the politically strong owner. That is long gone.

A Mediaset offshoot now thrives in Spain, but the Italian business appears slow in responding to consumers' changing internet habits or competing against Sky Italia, part of *BSkyB*, in winning pay-TV subscribers. Mediaset has been steadily losing value—its market capitalisation is just €3.3 billion, just over €2 billion less than a year ago. The biggest drag is its pay-TV unit, Mediaset Premium, which attracts low-paying subscribers, and has vastly overpaid for TV rights for football matches for the next two seasons. Never profitable, the unit has already lost over €100m in the first half of this year.

When Mr Berlusconi rode high, some sort of rescue would have been expected. In fact, in April Vivendi, a French media firm led by Vincent Bolloré, a pal of the *Cavaliere*, agreed in effect to save the division, in exchange for cross-shareholdings of 3.5% between Mediaset and Vivendi. This was touted as a "Latin strategy" to build a Mediterranean pay-TV powerhouse. It made little sense, unless Mr Bol-



It's getting harder to score

loré dreamed of one day acquiring Mediaset itself, and the terrestrial TV business in which it remains a market leader. In late July the accord fell apart, with Vivendi saying it had noticed that Mediaset's pay-TV business would take a long time to break even. Fininvest hit back with various accusations against Vivendi and promised to sue. The new generation of Berlusconis has plenty of tidying up to do. ■

Live-streaming

Amateur's hour

The commercial potential of self-made video may fall short of its shock value

A MAN broadcasts via Facebook Live the moment a sniper gunned down five policemen in Dallas. With her dying boyfriend next to her, a woman in a car recounts with stunning composure how just seconds before he was shot by a police officer after a traffic stop in Saint Paul, Minnesota. Citizens live-stream the aftermath of an attempted coup in Turkey. A woman cannot contain her excitement about a mask of Chewbacca, a Star Wars character, she has just bought, earning her 160m views on Facebook (pictured, next page).

Scarcely a week now passes without the world being treated to the real-time footage of another, sometimes harrowing event, which goes viral. But whether or not live-streaming will be a big money-earner is less obvious than its rising appeal. It was a decade ago that websites such as Justin.tv and Ustream made it possible for anyone with a PC, an internet connection and a webcam to become a broadcaster. Live-streaming's current, far more user-friendly mobile incarnation emerged early last year, by when wireless data connections were fast enough. And when Twitter (via its Periscope app) and Facebook started offering live-streaming services, the practice went mainstream.

Yet the fact that providers don't release much meaningful data suggests its scale may not be so impressive. In March Periscope announced that it had hosted 200m broadcasts since its launch in March 2015 and that 110 years of video were being watched live each day. But it won't say how many live-streams are created every day or the size of the audience. There are differing views on how big it will become. One take is that it will advance the "videofication" of the internet, in the words of Mark Mahaney of RBC, a bank. More and more online content and advertising, he predicts, will come in the form of moving pictures. Others reckon live-streaming will remain a niche service for people who like to be ▶▶



And the world laughed with her

seen and heard. It is unlikely to become something most people will use every day, such as instant messaging, says James McQuivey of Forrester, a research firm.

Another open question is how live-streaming apps, and the individuals or small outfits that regularly host streams, can eventually turn a profit. In China, where live-streaming has taken off rapidly, apps such as YY, by far the market leader with 80m viewing hours in April, allow viewers to reward their hosts with virtual gifts, including flowers or sports cars in the form of emoticon-like symbols that move across the screen. These can be traded for real money. Other services let users buy digital tokens to tip performers.

But such tipping is unlikely to become big in the West. Consumers there are used to getting online content free, and advertis-

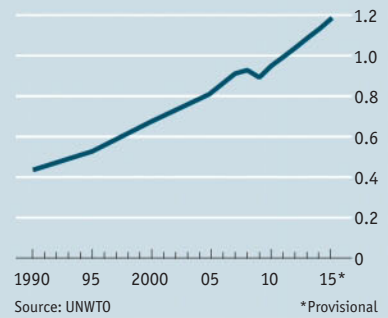
ing is what pays the bills for most internet firms. But advertisers could shy away from some of the content from live-streaming. They may not want their ads to appear, for instance, in or next to a stream of violent demonstrators. “Live is always scary for advertisers,” says Peter Stabler of Wells Fargo, another bank.

Live-streaming services will have to think hard about what they can show. At some point, the video from Minnesota became “temporarily inaccessible” before re-appearing. According to Facebook, this was down to a technical glitch, but it triggered a heated debate about the firm’s responsibilities as a host of citizen journalism. In China, regulators have laid down the law: eating bananas in a “seductive” fashion, for instance, is now banned.

Facebook has agreed to pay more than a hundred media companies, including the *New York Times* and *BuzzFeed*, and assorted celebrities, to create advertiser-friendly live-streams. Payouts agreed to date are estimated to exceed \$50m, but publishers say they have yet to figure out what gets people to watch live—other than political speeches, sports and porn. Over time, after a period of experimentation, live-streaming should find its place in the media landscape. But as things stand, it is unlikely to occupy more than a niche. Its main impact may be in politics. Campaign events are now regularly live-streamed. Perhaps one day politicians will be expected to wear a body camera at all times so voters can follow their every step. If you don’t like Trump on Twitter, wait for TrumpTube. ■

Heavy footprint

Foreign tourist arrivals, globally, bn



many complain. Authorities in Berlin, Barcelona and Iceland have responded with new limits on it. But that is unlikely to satisfy all locals. “Tourist you are the terrorist” can be found spray-painted across a stone wall in Palma de Mallorca. In New Zealand people are confiscating car keys from tourists who (allegedly) drive badly.

This summer in Barcelona, around eight out of ten people on Las Ramblas, a famous street, will be tourists. Many residents say their homes are being “Disneyfied”. The operators of Disneyland might view that as harsh: drunk and naked tourists, a boom in illegal flat rentals, and too many knick-knack shops are bigger problems in Barcelona than in the American firm’s theme parks. The city’s new mayor, Ada Colau, was elected on a manifesto of clamping down on tourists.

The Chinese come in for particular criticism. One in ten international tourists now comes from China. Seychellois hoteliers are fed up with one of their habits, which is to boil fresh crabs inside the hot water kettles in their rooms. The head of New Zealand’s tourism body admitted last year that the growth in the number of Chinese visitors is higher than it would like.

Mark Tanzer, head of the Association of British Travel Agents, has warned that without controls, tourists could kill tourism. But local officials will need to tread carefully when putting them in place. Tourism now accounts for nearly a tenth of global GDP, and is a reliable source of growth for many places that would otherwise struggle. In Barcelona it provides 120,000 jobs, and in the Seychelles tourism was almost two-thirds of GDP last year.

Many problems may in fact be caused as much by inadequate planning by local governments as by a surfeit of day-trippers. They can be slow to build infrastructure that could ease the burden, for instance free public toilets for those tourists who are on a tight budget. Not all are good at crafting rules that protect local ambience without discouraging tourists altogether. They’ll need to get better at it. Vast crowds of visitors may be a new challenge, but it’s one that is here to stay. ■

The tourism industry

Nothing to see here

A number of beauty spots are severely restricting tourism

OTHERWISE law-abiding citizens confiscating drivers’ keys, kettles that reek of crabmeat, and twenty-somethings unable to afford apartments; these phenomena seem unconnected. Yet locals see a common culprit: tourists. Troublesome tourists are nothing new. “Though there are some disagreeable things in Venice, there is nothing so disagreeable as the visitors,” quipped Henry James. But the volume of tourists in popular destinations is new, as well as the fact that many places are restricting or even banning them.

From October visitors will be turned away from Koh Tachai island, a snorkelling paradise in Thailand, to save the coral from death by a thousand plastic fins. Sun umbrellas will go from three nearby islands, as they curb tourism too. At the height of

summer some 10,000 holidaymakers per day trundle off cruise ships into the alleyways of Santorini, a Greek island. The authorities now have a cap of 8,000 a day.

In the Seychelles, the government has banned large hotel developments indefinitely. Both Barcelona and Amsterdam have banned construction of new complexes in the city centre to appease locals. That answers a common complaint of residents, which is that the fruits of tourism mostly go to large firms such as hotel groups, not to small entrepreneurs.

Blocking new Hiltons does little to stop the growth of Airbnb, a room-sharing service, another reason why some destinations have such an influx of visitors just now. Airbnb is making city living unaffordable for residents as well as crowded,

Schumpeter | Revenge of the nerds

Silicon Valley's geeks are trying to turn themselves into jocks



AS THE new year dawned Mark Zuckerberg informed the world that his resolution for 2016 was to run 365 miles over the coming year—and challenged his legions of Facebook followers to do likewise. Mr Zuckerberg has hit his target, and is now hard at work on his next challenge, competing in a triathlon. This summer he fell off his bike and broke his arm but forges on as best he can.

Gone are the days when geeks wore shapeless T-shirts to prove that they didn't care about physical appearances. Now they wear tight tops designed to show off their arms and torsos. Tim Cook, Apple's CEO, gets on the treadmill by five in the morning. Jack Dorsey, Twitter's boss, is a fan of squats, push-ups and jogging. Brian Chesky, a co-founder of Airbnb, was once a competitive bodybuilder. Jeff Bezos and Elon Musk both reportedly have "pecs to die for".

Why limit yourself to such plebeian gyrations as running, bicycling and weightlifting when you have several billion dollars to burn? Larry Ellison, Oracle's chairman, races his own yachts and plays tennis to a reasonable standard (he picks up tips from watching the Indian Wells tournament, which he owns). Sergey Brin, Google's co-founder, pushes his body to the limits in a variety of sports: skydiving, rollerblading, roller hockey, "ultimate Frisbee" and high-flying trapeze. Mr Brin can be found in some surprising poses, walking around his office on his hands, and in some unexpected places, such as trapeze classes at local circuses.

Vigorous exercise regimes often go hand-in-hand with exotic diets. Mr Zuckerberg once set himself the challenge of eating meat only if he killed it himself, for a year—which, given that he lives in San Francisco and works 60 hours a week, means he was a de facto vegetarian. Mr Dorsey follows a Paleo diet (no gluten, dairy, sugar or alcohol). Nor is the obsession with health confined to a few fanatics at the top. Tech companies expect employees to make full use of amenities such as rock-climbing walls. Even strapped-for-cash startups make sure they have table-tennis tables. The streets of San Francisco are lined, along with the homeless, with gyms offering something called SoulCycle, as well as CrossFit training and Zumba dancing, and restaurants purveying gluten-free this and macrobiotic that.

Predictably, the nerds are trying to "reinvent" fitness much as they are trying to reboot everything else. They talk about how

physical fitness is just another code to be hacked, and festoon their bodies with fitness bands and other measuring devices. They surround themselves with ever more exotic gadgets such as self-balancing unicycles (which are like hover boards but have one wheel rather than two) and aqua-cycles. Alex Debelov, the CEO of Viroom, a video advertising platform, has an oxygen-filtering mask to optimise his workouts.

Equally predictably, the nerds are also trying to reinvent the business of fitness. A former boss of Twitter, Dick Costolo, is building a software platform designed to help people work out together and motivate each other to stay fit. Zepp Labs helps golfers and tennis and baseball players to improve their games by collecting data on their swings using 3-D motion sensors. Strava, a mobile app, allows cyclists and joggers to compete with each other even if they live thousands of miles apart.

There are two reasons why the tech titans are obsessed with healthy living. One is that the American elite in general has rediscovered the Victorian adage "mens sana in corpore sano". Being fit sharpens your mind and boosts your energy (though American productivity growth was significantly higher in the days of three-martini lunches and steak dinners). And California has always been at the centre of America's fitness culture: witness the surfers of San Diego and the bodybuilders of Venice Beach. Drop America's most ambitious people into the most body-obsessed of its 50 states and a plague of fitness crazes will inevitably follow.

There is also a more intriguing explanation: the revenge of the nerds. American high schools have always been divided between "jocks" and "nerds". The nerds excel at academic work. But the jocks excel in all the things that teenagers care about—getting on the football team, winning running races and attracting women. In the early stages of the tech revolution the nerds got their revenge by earning more money than the jocks ever dreamed of. Now they are going further and proving they can beat the jocks at their own game. The athletes can never catch up with the nerds when it comes to algebra or earning power (and indeed many of them run to fat as they get older), but the nerds can become alpha males physically as well as intellectually, particularly when they can afford to hire personal trainers and dieticians.

All they need is a lobotomy and some tights

Yet however hard they exercise they cannot extirpate the memories of their high-school years. Chris Anderson, the CEO of 3D Robotics, a drone company, and former editor-in-chief of *Wired*, argues that would-be alpha nerds are condemned not just to overcompensation but to escalation in their overcompensation. Wind boarding leads to kite surfing which leads to fly boarding. Rollerblading leads to hover boarding which leads to electric unicycling. Unicycling leads to wire walking which leads to trapeze artistry which leads to skydiving. Skydiving leads to flying planes which leads to flying fighter jets which leads to flying spaceships.

The Silicon Valley fitness craze clearly has a long way to go. But the anxieties that drive it are eternal. Tech billionaires may hone their bodies with high-powered exercise machines and scientifically formulated diets. They may blast themselves into outer space. They may even discover the secret of perpetual youth. But as they float around in outer space, their bodies finely toned, their life-force rejuvenated by the blood of 20-year-olds, their bank accounts swollen from three commas to four, they will still be, in their deepest selves, the puny nerd who cowered, sweating and miserable, before some muscle-bound jock. ■



Fiscal multipliers

Where does the buck stop?

Fiscal stimulus, an idea championed by John Maynard Keynes, has gone in and out of fashion

AT THE height of the euro crisis, with government-bond yields soaring in several southern European countries and defaults looming, the European Central Bank and the healthier members of the currency club fended off disaster by offering bailouts. But these came with conditions, most notably strict fiscal discipline, intended to put government finances back on a sustainable footing. Some economists argued that painful budget cuts were an unfortunate necessity. Others said that the cuts might well prove counterproductive, by lowering growth and therefore government revenues, leaving the affected countries even poorer and more indebted.

In 2013 economists at the IMF rendered their verdict on these austerity programmes: they had done far more economic damage than had been initially predicted, including by the fund itself. What had the IMF got wrong when it made its earlier, more sanguine forecasts? It had dramatically underestimated the fiscal multiplier.

The multiplier is a simple, powerful and hotly debated idea. It is a critical element of Keynesian macroeconomics. Over the past 80 years the significance it has

In this series

- 1 Akerlof's market for lemons
- 2 Minsky's financial cycle
- 3 The Stolper-Samuelson theorem
- 4 **The Keynesian multiplier**
- 5 The Nash equilibrium
- 6 The Mundell-Fleming trilemma

been accorded has fluctuated wildly. It was once seen as a matter of fundamental importance, then as a discredited notion. It is now back in vogue again.

The idea of the multiplier emerged from the intense argument over how to respond to the Depression. In the 1920s Britain had sunk into an economic slump. The first world war had left prices higher and the pound weaker. The government was nonetheless determined to restore the pound to its pre-war value. In doing so, it kept monetary policy too tight, initiating a spell of prolonged deflation and economic weakness. The economists of the day debated what might be done to improve con-

ditions for suffering workers. Among the suggestions was a programme of public investment which, some thought, would put unemployed Britons to work.

The British government would countenance no such thing. It espoused the conventional wisdom of the day—what is often called the “Treasury view”. It believed that public spending, financed through borrowing, would not boost overall economic activity, because the supply of savings in the economy available for borrowing is fixed. If the government commandeered capital to build new roads, for instance, it would simply be depriving private firms of the same amount of money. Higher spending and employment in one part of the economy would come at the expense of lower spending and employment in another.

As the world slipped into depression, however, and Britain's economic crisis deepened, the voices questioning this view grew louder. In 1931 Baron Kahn, a British economist, published a paper espousing an alternative theory: that public spending would yield both the primary boost from the direct spending, but also “beneficial repercussions”. If road-building, for instance, took workers off the dole and led them to increase their own spending, he argued, then there might be a sustained rise in total employment as a result.

Kahn's paper was in line with the thinking of John Maynard Keynes, the leading British economist of the day, who was working on what would become his masterpiece, “The General Theory of Employment, Interest and Money”. In it, Keynes gave a much more complete account of how the multiplier might work, and how it might enable a government to drag a slumping economy back to health.

Keynes was a singular character, and one of the great thinkers of the 20th century. He looked every inch a patrician figure, with his tweed suits and walrus moustache. Yet he was also a free spirit by the standards of the day, associating with the artists and writers of the Bloomsbury Group, whose members included Virginia Woolf and E.M. Forster. Keynes advised the government during the first world war and participated in the Versailles peace conference, which ended up extracting punitive reparations from Germany. The experience was dispiriting for Keynes, who wrote a number of scathing essays in the 1920s, pointing out the risks of the agreement and of the post-war economic system more generally.

Frustrated by his inability to change the minds of those in power, and by a deepening global recession, Keynes set out to write a *magnum opus* criticising the economic consensus and laying out an alternative. He positioned the “General Theory” as a revolutionary text—and so it proved. ▶▶

▶ The book is filled with economic insights. Yet its most important contribution is the reasoning behind the proposition that when an economy is operating below full employment, demand rather than supply determines the level of investment and national income. Keynes supposed there was a “multiplier effect” from changes in investment spending. A bit of additional money spent by the government, for instance, would add directly to a nation’s output (and income). In the first instance, this money would go to contractors, suppliers, civil servants or welfare recipients. They would in turn spend some of the extra income. The beneficiaries of that spending would also splash out a bit, adding still more to economic activity, and so on. Should the government cut back, the ill effects would multiply in the same way.

Keynes thought this insight was especially important because of what he called “liquidity preference”. He reckoned that people like to have some liquid assets on hand if possible, in case of emergency. In times of financial worry, demand for cash or similarly liquid assets rises; investors begin to worry more about the return of capital rather than the return on capital. Keynes posited that this might lead to a “general glut”: a world in which everyone tries to hold more money, depressing spending, which in turn depresses production and income, leaving people still worse off.

In this world, lowering interest rates to stimulate growth does not help very much. Nor are rates very sensitive to increases in government borrowing, given the glut of saving. Government spending to boost the economy could therefore generate a big rise in employment for only a negligible increase in interest rates. Classical economists thought public-works spending would “crowd out” private investment; Keynes saw that during periods of weak demand it might “crowd in” private spending, through the multiplier effect.

Keynes’s reasoning was affirmed by the economic impact of increased government expenditure during the second world war. Massive military spending in Britain and America contributed to soaring economic growth. This, combined with the determination to prevent a recurrence of the Depression, prompted policymakers to adopt Keynesian economics, and the multiplier, as the centrepiece of the post-war economic order.

Other economists picked up where Keynes left off. Alvin Hansen and Paul Samuelson constructed equations to predict how a rise or fall in spending in one part of the economy would propagate across the whole of it. Governments took it for granted that managing economic demand was their responsibility. By the 1960s Keynes’s intellectual victory seemed complete. In a story in *Time* magazine, published in 1965, Milton Friedman declared

(in a quote often attributed to Richard Nixon), “We are all Keynesians now.”

But the Keynesian consensus fractured in the 1970s. Its dominance was eroded by the ideas of Friedman himself, who linked variations in the business cycle to growth (or decline) in the money supply. Fancy Keynesian multipliers were not needed to keep an economy on track, he reckoned. Instead, governments simply needed to pursue a policy of stable money growth.

An even greater challenge came from the emergence of the “rational expectations” school of economics, led by Robert Lucas. Rational-expectations economists supposed that fiscal policy would be undermined by forward-looking taxpayers. They should understand that government borrowing would eventually need to be repaid, and that stimulus today would necessitate higher taxes tomorrow. They should therefore save income earned as a result of stimulus in order to have it on hand for when the bill came due. The multiplier on government spending might in fact be close to zero, as each extra dollar is almost entirely offset by increased private saving.

Rubbing salt in

The economists behind many of these criticisms clustered in colleges in the Midwest of America, most notably the University of Chicago. Because of their proximity to America’s Great Lakes, their approach to macroeconomics came to be known as the “freshwater” school. They argued that macroeconomic models had to begin with equations that described how rational individuals made decisions. The economic experience of the 1970s seemed to bear out their criticisms of Keynes: governments sought to boost slow-growing economies with fiscal and monetary stimulus, only to find that inflation and interest rates rose even as unemployment remained high.

Freshwater economists declared victory. In an article published in 1979 and entitled “After Keynesian Economics”, Robert

Lucas and Tom Sargent, both eventual Nobel-prize winners, wrote that the flaws in Keynesian economic models were “fatal”. Keynesian macroeconomic models were “of no value in guiding policy”.

These attacks, in turn, prompted the emergence of “New Keynesian” economists, who borrowed elements of the freshwater approach while retaining the belief that recessions were market failures that could be fixed through government intervention. Because most of them were based at universities on America’s coasts, they were dubbed “saltwater” economists. The most prominent included Stanley Fischer, now the vice-chairman of the Federal Reserve; Larry Summers, a former treasury secretary; and Greg Mankiw, head of George W. Bush’s Council of Economic Advisers. In their models fiscal policy was all but neutered. Instead, they argued that central banks could and should do the heavy lifting of economic management: exercising a deft control that ought to cancel out the effects of government spending—and squash the multiplier.

Yet in Japan since the 1990s, and in most of the rich world since the recession that followed the global financial crisis, cutting interest rates to zero has proved inadequate to revive flagging economies. Many governments turned instead to fiscal stimulus to get their economies going. In America the administration of Barack Obama succeeded in securing a stimulus package worth over \$800 billion.

As a new debate over multipliers flared, freshwater types stood their ground. John Cochrane of the University of Chicago said of Keynesian ideas in 2009: “It’s not part of what anybody has taught graduate students since the 1960s. They are fairy tales that have been proved false. It is very comforting in times of stress to go back to the fairy tales we heard as children, but it doesn’t make them less false.”

The practical experience of the recession gave economists plenty to study, however. Scores of papers have been published since 2008 attempting to estimate fiscal multipliers. Most suggest that, with interest rates close to zero, fiscal stimulus carries a multiplier of at least one. The IMF, for instance, concluded that the (harmful) multiplier for fiscal contractions was often 1.5 or more.

Even as many policymakers remain committed to fiscal consolidation, plenty of economists now argue that insufficient fiscal stimulus has been among the biggest failures of the post-crisis era. Mr Summers and Antonio Fatas suggest, for example, that austerity has substantially reduced growth, leading to levels of public debt that are higher than they would have been had enthusiastic stimulus been used to revive growth. Decades after its conception, Keynes’s multiplier remains as relevant, and as controversial, as ever. ■





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Europe's disappearing cash

Emptying the tills

STOCKHOLM

Some Europeans are more attached to notes and coins than others

ONLY tourists pay in cash, says the young barista in Espresso House, a Swedish coffee chain, on Vasagatan in Stockholm. "They don't understand we don't use that anymore," she rolls her eyes, gesturing to the card machine. The contactless "taps" that locals use are much faster, and she frequently runs out of change when foreigners bring large-denomination notes, fresh from the ATM.

Swedes rarely handle cash; the volume of card payments has increased tenfold since 2000 and only one in five payments—5-7% if measured by value—are made in cash today. In much of northern Europe the situation is similar, with "no cash" signs increasingly popping up in shop windows. But travel south or east and a different picture arises; in Italy 83% of payments are still in cash. Whereas Norwegians made 456 electronic transactions per person last year, Italians made only 67 and Romanians 17, according to the Boston Consulting Group. Most surprising is Germany's reluctance to dispense with "real money". Over three-quarters of German payments are still made in cash and "cash only" signs are not that uncommon.

As countries become richer, they tend to move away from cash on grounds of security, convenience and cost. Consumers may think that cash is free but for banks and retailers it is not; it needs to be counted, bundled, transported, cleaned, replaced, checked for forgery, stored and guarded.

Around 0.5-1% of GDP a year is spent on managing cash. Moreover, in a new book, "The Curse of Cash", the economist Kenneth Rogoff argues that cash in the rich world aids tax evasion and other illegal activities, and that monetary policy would be more effective in a cashless world. Yet some Europeans are far more reluctant to abandon paper and copper than others.

In the Benelux and Scandinavian countries, banks were early promoters of electronic payments and made it easier (and cheaper) for customers to use cards. In thinly populated Sweden and Norway, maintaining a large branch and ATM network is costly; Swedbank, Sweden's largest

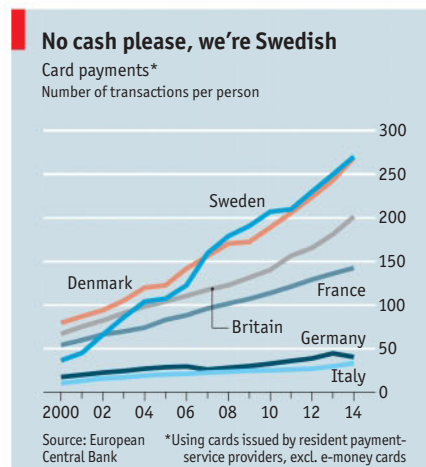
retail bank, has only eight branches that handle cash. Banks also helped to develop mobile-payment technologies, such as MobilePay in Denmark, an app now used on nine out of ten Danish smartphones.

Yet in Germany and much of the south and east, banks have been less proactive. German banks have been much slower to promote electronic and card payments. In Italy relatively few people have bank cards and those who do use them infrequently (25 transactions per debit card per year, compared with 114 in France). This is partly because Italian merchants dislike cards, as banks have tended to charge high fees. To iron out differences between countries, in December 2015 the European Commission capped interchange fees at 0.2% per debit-card transaction and 0.3% for credit cards.

Scandinavian authorities have helped facilitate card use. In Sweden the installation in cash registers of "blackboxes" that directly send sales data to the tax agency to fight VAT evasion, has helped make cash less attractive. In Denmark paying benefits onto debit cards aided the transition.

Dimitri Roes, the owner of 't Vlaams Broodhuys, a Dutch chain of bakeries, says the decision to become cashless was motivated by security and hygiene. "Bakeries are soft targets for robberies. For a few hundred euros you get a knife in you." Customers also didn't like staff touching their croissants after handling coins. Some clients angrily threw their coins across the counter when bakers stopped accepting them, but over 90% didn't care.

Culture plays a role, too. Digitally sophisticated Scandinavians may be comfortable buying groceries on their smartphones but a deep-rooted aversion to being tracked—a scar left by the Stasi—lies behind German distrust. A recent survey by PwC revealed that two in five Germans don't use mobile payments because of



concerns about data security (and nearly nine in ten worry about it). When the German finance ministry recently proposed capping cash payments at €5,000, as in some other countries, *Bild*, a daily newspaper, organised a reader protest.

Italians were equally enraged when a cap on cash payments over €1,000 was introduced in 2011. Matteo Renzi, the prime minister, last year loosened it to €3,000. Mr Rogoff thinks weak governance in countries such as Italy and Greece is largely to blame for high rates of tax evasion and other crime, and consequent hefty holdings of cash. Practices such as paying part

of salaries in cash-stuffed envelopes are deeply rooted.

Despite such slower progress, Andreas Pratz of AT Kearney, a consultancy, thinks that once a country reaches 100 point-of-sale card transactions per person per year, people realise they can survive without cash. As the share of transactions made in cash falls, their overall costs increase. Pan-teia, a research firm, estimates that in the Netherlands the average cost per cash payment grew from €0.22 to €0.25 between 2009 and 2014 and the cost per pin payment dropped from €0.21 to €0.19.

Of course there are downsides to mov-

ing away from cash. Installing card machines can be costly. The poor, many of whom lack bank accounts, would need to be included. Concerns about losing anonymity are legitimate. And cash has always been the obvious contingency in case systems break down.

But the advantages of cashless commerce grow ever more apparent. Back in Stockholm, at the Radisson Waterfront hotel, two American seniors bicker over who will fetch “local money” so they can get a taxi. If only they knew that cabbies here prefer cards and only 7% of Taxi Stockholm’s payments are made in cash. ■

Buttonwood | Back in fashion

Emerging markets are popular with investors again

EMERGING markets are back. The stockmarkets of developing countries have flipped in and out of fashion over the past 20 years as investors have switched from naive enthusiasm about their long-term growth prospects to heightened concern about their riskiness. This year they are once again in style, having generated a return of more than 13%.

That is an abrupt change of mood from 2010-14, when the markets were about as popular as a drug tester at a Russian athletics event (see chart). During those years, investors seemed to focus entirely on the negatives. The growth rates of many emerging economies, even China, seemed to falter. Commodity producers were hit by a decline in raw-materials prices. Political worries resurfaced about previously popular investment destinations, such as Brazil and Turkey.

Eventually, however, markets tend to fall far enough that they reflect all the bad news. Robeco, a Dutch fund-management group, reckons that emerging markets trade at a 30% discount to rich-world equities, in terms of their prospective price-earnings ratio (the next year’s profits, relative to the share price).

And there may be good news on the economic fundamentals. In its April forecast, the IMF predicted a modest uplift in emerging-market GDP growth this year to 4.1% (from 4% in 2015) and a more vigorous rebound in 2017 to 4.6%. In particular, two troubled economies—Brazil and Russia—are expected to stop shrinking next year. After a long period of decline, emerging-market exports are showing signs of stabilising; in volume terms, they rose by 3% in May, compared with the same month a year earlier.

Although the oil price has been weak in recent weeks, raw-materials prices in general seem to have stabilised this year,



an important factor since many developing countries are commodity producers.

As a result, investors are starting to recover their enthusiasm. The monthly survey of fund managers by Bank of America Merrill Lynch shows that most had a lower-than-normal exposure to emerging markets from 2013 onwards. Since May, they have shifted to a higher-than-normal weighting, although their optimism is nowhere near the levels seen before the financial crisis of 2008.

Emerging markets are also benefiting from the search for a decent return. With cash rates at close to zero or below in many economies, and trillions of dollars worth of government bonds trading on a negative yield, investors are willing to take some risk. As a result, emerging-market currencies and government bonds have also rallied this year.

Historically, the most dangerous time for emerging markets is when investors’ enthusiasm for the sector is highest and when it trades at a premium, in valuation terms, to the developed world. Neither caveat applies at the moment.

Still, investors should beware the naive

belief that, because emerging markets are growing faster than advanced economies, they must be a better bet. A study by Elroy Dimson, Paul Marsh and Mike Staunton of the London Business School found that, from 1900 to 2013, there was actually a negative correlation between economic growth per person over five-year periods and inflation-adjusted equity returns.

One reason for the anomaly is that a country’s stockmarket is not a facsimile of the domestic economy; many companies are not quoted. Another reason is that minority investors may not get the full benefit of corporate growth. John-Paul Smith of Ecstrat, a consultancy, has been bearish on emerging markets for some time and still argues that there is “very little prospect of a shift in the underlying governance regimes of the major emerging equity markets in a direction that would benefit minority investors”.

Perhaps the biggest threat to the emerging-market rally would be a Donald Trump presidency. There are direct threats—his plans to leave the North American Free Trade Agreement or his hints about quitting the World Trade Organisation—that would hit economic growth in developing countries. Then there are his foreign-policy pronouncements, including a willingness to disengage from overseas defence alliances. Citigroup, a global bank, thinks that South Korea and Taiwan would be harmed by such a shift, with Russia probably the only beneficiary.

The erratic nature of Mr Trump’s pronouncements might also lead to a dose of risk aversion among global investors. And emerging markets tend to lose out when investors grow cautious. There is still time for this rally to get derailed.

Pensions

No love, actuary

A report on American pension funds is controversially shelved

WHEN it comes to funding the pensions of their workers, American states and local governments have not been doing a good job. Back in 2000, the average pension plan was fully funded, according to the Centre for Retirement Research (CRR); at the end of 2015, the official funding ratio was just 72%.

So a report from a pension-finance task force into the way economic principles apply to public pension funds ought to make compulsory reading. But the paper, commissioned by the American Academy of Actuaries (AAA) and the Society of Actuaries (SOA), is not going to see the light of day. That is very disappointing, since the report (a draft of which has been seen by *The Economist*) highlights how the approach to valuing American public pensions is highly questionable.

The big costs for pension plans lie in the future, as members retire and benefits are paid. Those costs must be discounted at some rate to the present day so those who run schemes know how much money to put aside. The higher the discount rate, the less money has to be put aside now; American public plans tend to use a discount rate of around 7.5%, based on the investment return they expect to achieve.

The draft paper points out that this approach is flawed. Indeed, accounting rules don't allow corporate pension plans to use it. Economic principles suggest that the cost of a benefit does not depend on the assets expected to finance it. A promise to pay a stream of pension payments in the future resembles a commitment to make interest payments on a bond. A bond yield is thus the most appropriate discount rate. But given how low bond yields are, pension deficits would look larger (and required contributions would be much higher) if such a discount rate were used. A discount rate of 4%, for example, would mean the average public pension plan would have a funding ratio of only 45%, not 72%, according to the CRR.

A more generous accounting approach allows public pension plans to avoid asking taxpayers to stump up more money in the short term. But future taxpayers will bear the burden. As the paper points out, the concept of intergenerational equity requires each generation of taxpayers to pay the full cost of the benefits it receives.

The ideas in the paper have been circulating among European actuaries for 20 years. But the conclusions are controver-

sial in America; an AAA spokesman said the study "did not meet the editorial and policy standards of our review process". Pressed for details, the AAA referred to the paper's "tone and clarity" and cited the wording of a footnote on pension costs.

It was perfectly within the rights of the actuarial bodies not to publish but they went further. In a memo, Tom Wildsmith and Craig Reynolds, respectively presidents of the AAA and SOA, said that, as the paper was produced by a group set up by them, "we do not think it would be appropriate for members of the task force, as individuals, to take the existing paper and simply publish it somewhere else."

The decision angered those who have been working on the paper since 2014, who see the move as censorship. "This is a paper that they didn't write, they didn't fund and don't want to publish," says Ed Bartholomew, a former banker and one of the authors who worked on a voluntary basis. Jeremy Gold, another of the authors, says the affair illustrates the insularity of the actuarial profession.

In its defence, the AAA says it has in the past published similar views to those expressed in the report. And the SOA plans to hold a webinar on September 27th, in which the authors can discuss the issue. Still, the two bodies should just allow the report to be published. American public-sector pension deficits are more than \$1 trillion, even on the most generous assumptions. This is an issue in which debate should not be stifled. ■

The leisure economy

Surfing to success

Quality waves create a surge in economic activity

BRONZED travellers gaze out over their cocktails as surfers carve up the left-hand breaks on offer in Máncora, Peru. Decades ago Máncora was little more than a somnolent fishing village surrounded by desert. Today it's a staple of the surfer circuit with a recent swell of luxury retreats. Máncora's transformation, everyone agrees, owes much to its wave patterns.

Just how much waves are worth has long interested surfers. Valuing waves can help fight developments like sea walls that threaten to mess up the waves. Surfonomics, pioneered by Chad Nelsen of the Surf Rider Foundation, normally estimates waves' worth by surveying how much surfers splash out on food, drink and lodgings at a particular beach. But global and national valuations of waves have proven more elusive.



Breaking good

A new paper by a pair of salt-sprayed economists, Thomas McGregor and Samuel Wills of Oxford University, takes a different approach. They study data on wave quality, crowdsourced from picky surfers, and satellite images of night-time light intensity, a handy proxy for economic activity. Areas around beaches with high-quality waves have over time grown brighter and brighter in these satellite images. Beaches with low-quality waves, on the other hand, remain lost in the dark.

Quality waves bring surfers who need somewhere to sink a cold beer and snooze. Nearby towns also get a boost as surfers roll in for supplies or, for the less talented, medical care. The better the waves are, the greater the surge in economic activity—but only up to a point. The biggest, purest breakers are suitable only for pros (or novices with scant regard for personal safety).

Waves, it turns out, are no drop in the ocean. High-quality waves, the authors estimate, generate economic activity worth \$50 billion per year globally. That's around \$20m annually for each place with good surf. And when surfers discover a great new spot, economic growth in the area can rise by up to three percentage points for the next five years. Good waves also help turn the tide of rural poverty by encouraging the poor to stream into towns to join the surfing economy.

Developing countries gain the most from serious surf. And with 26,000km of coastline in Africa and 62,800km in Asia, the opportunities are boundless. But good waves alone don't guarantee an economic boom. According to Messrs McGregor and Wills, to catch the economic benefits, countries need stable politics and a decent business environment. Before squeezing into a wetsuit, policymakers may first need to go on a regulatory diet. ■

Recruitment and equality

Pandora's box

Allowing ex-cons to hide their criminal histories increases racial inequality

WITH budgets under strain, governments across the developed world want to reduce their jail populations. For the first time in decades, America and Europe are now releasing more prisoners than they are locking up. One way to ensure those ex-cons do not wind up back behind bars is to help them find work. But a body of new research suggests one increasingly popular way to promote this has worrying unintended consequences.

Forcing job applicants to declare they have a criminal record—whether or not it is relevant to the post—allows employers to filter out ex-convicts, it is argued, and prevents them finding the sort of work that would help them stay out of prison. So activists across the world have called for “ban-the-box” laws, which prohibit employers from inquiring about criminal histories prior to job interviews or offers.

Some 24 states and many municipalities in America have now introduced laws along those lines. They are also gaining favour in Europe. The British government has banned the question for civil-service jobs; the policy was the core of the previous prime minister's plans to boost racial equality. As black people are more likely than whites to end up with criminal records—five times more likely in America—banning the box should help reduce bias, advocates say. But research suggests otherwise. Instead, such policies encourage racial stereotyping by employers that hinders minority groups from finding work.

A paper by Jennifer Doleac of the University of Virginia and Benjamin Hansen of the University of Oregon, published on August 1st, looked at the impact of introducing ban-the-box policies on labour-market data from America's population census. It found that withholding criminal-record data from employers encouraged them to treat certain minority groups as if they were more likely to have criminal pasts. In areas where ban-the-box laws have taken effect, the study found, the probability of being employed has fallen by 5.1% for young, low-skilled African-American men, and by 2.9% for young, low-skilled Hispanic men. Such effects are stronger in areas with lower levels of racism historically, such as those with smaller black populations in the Northeast, Midwest and West.

Other research backs up this conclusion. Amanda Agan of Princeton University and Sonja Starr of the University of

Michigan sent 15,000 fictitious job applications to employers in New York and New Jersey. Before ban-the-box was introduced in these states, white applicants received around 7% more callbacks than similar black applicants. But when the policy took effect the gap increased to 45%.

Research by other economists suggests the more information the better when it comes to giving minorities a leg up. A recent paper by Abigail Wozniak of the University of Notre Dame found that employers who were allowed to use drug testing in recruitment were up to 30% more likely to employ black people, and, when they did, pay them more. Another study, by economists at MIT, published in March, found that banning employers from checking the credit records of potential employees reduced black employment by up to a sixth. In short, banning the box alone is a “cheap fix that doesn't work” as far as promoting racial equality is concerned, Ms Doleac concludes. ■

Financial crime

The final bill

NEW YORK

The legal storm surrounding banks is largely over

THE last few drips are spilling from the tap. On August 8th Barclays agreed to pay 44 American states \$100m in recompense for its traders manipulating the London Interbank Offered Rate (LIBOR). That followed a Federal Reserve announcement of a \$36m payment by Goldman Sachs for the improper receipt of confidential information. Soon JPMorgan Chase is expected to say it will pay \$200m to settle allegations it bribed high-ranking Chinese officials by offering internships to their children.

While these penalties are hardly trivial,

they are small compared with what went before. Federal criminal prosecutions of financial firms in America were almost nonexistent before the 2008 crisis. They then took off, accompanied by civil litigation, often co-ordinated with state attorneys general, and followed by private lawsuits.

It is not quite over. Negotiations continue over allegations of foreign-exchange manipulation by a dozen large banks. Barclays will not be the last to settle over LIBOR. But cases tied to three large categories—mortgages, tax evasion and the dodging of sanctions—have largely run their course. Barring a surprise, an era of costly litigation may soon come to an end.

All told, there have been 188 settlements since 2009, costing \$219 billion, according to KBW, an investment bank. Another 278 announced actions are pending a resolution. Eleven firms have paid fines in excess of 10% of their market capitalisation (see chart), with Bank of America having spent the most in absolute terms (\$77 billion) and in relation to its net worth (50%).

These costs have caused banks to change how they act. Some of this is merely form. Candid e-mails have become unacceptable risks. The investigation into JPMorgan's hiring of interns stemmed from explicit records—favour-granters will now act quietly.

Global banks once considered much of their value to come from operating everywhere, and particularly in difficult environments. Now, in countries where bribery and shady customers abound, and the cost of compliance to meet these circumstances exceeds the potential for legitimate profits, banks are pursuing “an alternative form of crime reduction—they are pulling out”, says Jennifer Arlen, a professor at New York University.

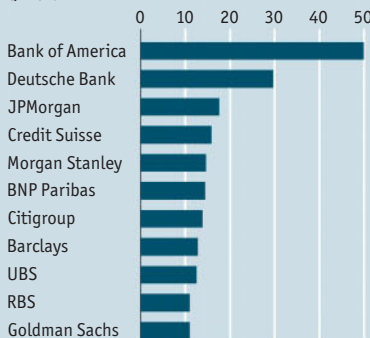
Questions have also been raised about how settlement money has been used. No cohesive accounting exists. Many states treated their take as a windfall gain. A congressional hearing in May cited several deals arranged by the Department of Justice that allowed banks to reduce their overall payments in exchange for channeling money to housing advocacy groups supported by the Obama administration, rather than directly to victims.

The most controversial legacy is the lack of individual accountability. In response to pervasive criticism, the Justice Department formulated a new approach, announced in September by deputy attorney general Sally Yates in a speech at New York University. “Our mission here,” she said, “is not to recover the largest amount of money from the greatest number of corporations; our job is to seek accountability from those who break our laws.”

Since then, little has happened to illustrate the new approach. It could be too soon; cases can take years to build. The real test may have to come in the next crisis. ■

Take that from the bank

Settlements as % of market capitalisation Q2 2016



Sources: Keefe, Bruyette and Woods; Bloomberg

Free exchange | The problematic proposal

Shifts in global-trade patterns are fuelling a new anti-trade fervour



THESE are difficult times for America's free-traders. Donald Trump has put anger at "globalism" at the heart of his campaign. Even Democrats have turned against the Trans-Pacific Partnership (TPP)—an ambitious new agreement between 12 Pacific-rim countries, and one of Barack Obama's signature second-term achievements. Hillary Clinton, once a backer, has withdrawn her support, while left-wing activists rail against the deal at every opportunity. The changing structure of global trade is partly to blame for the souring of public opinion. Unfortunately, that evolution will make any new effort to liberalise trade devilishly hard.

Trade between America and China has grown explosively since 2000, over which time manufacturing employment in America has fallen from just over 17m workers to around 12m, while wages for less-skilled workers have stagnated. In a recent paper David Autor, David Dorn and Gordon Hanson examined the performance of cities where industry was most exposed to Chinese competition. They found depressed wages and labour-force participation and elevated unemployment persisted for a decade or more after rapid growth in trade with China began. Resentment at this experience, and at the perception that too little has been done by American leaders to mitigate these harms, certainly motivates some trade warriors. The wonder, arguably, is that politicians have taken so long to exploit these trends.

However, polling actually shows that Americans favour freer trade—more so, in fact, than they did a few years ago, when Mr Obama prioritised the TPP negotiations. But the recognition of the value of trade agreements does not extend to acceptance of TPP. Recent surveys find that the majority of Americans are against it. If worker angst and Sinophobia were determining what people think, then you might expect more anger about overall trade but less hostility to TPP, which excludes China. Instead, the public—and even Republicans, now America's most trade-hostile party—see more opportunity than cost to expanded trade, while at the same time distrusting TPP.

This odd divergence in opinion may be linked to a globalisation of supply chains. Production of traded goods has become "unbundled", says Richard Baldwin of the Graduate Institute in Geneva. Firms once tended to design new gadgets and order the supplies needed to build them in a single factory or city. In the

past few decades, more efficient global shipping and improvements in communications allowed firms to spread production across far-flung locations: to design a phone in America, source parts from several Asian economies, and assemble it in China. The share of parts and components in trade rose from 22% to 29% between 1980 and 2000. In 2005 trade in "intermediate inputs" accounted for an estimated 56% of trade in goods and 73% in services across rich countries. This dispersion of production chains contributed to a dramatic acceleration in global trade growth. It also changed the way many workers view trade. Where once it meant the choice between Japanese and American gadgetry, it now means iPhones, but built with cheap foreign labour.

As production has spread around the world, countries have specialised in different segments of the supply chain. While those, such as China, with lots of low-cost labour, focused on manufacturing and assembly, more advanced economies followed a different path. Cities like New York and San Francisco enjoyed an initial advantage in the most lucrative bits of the modern supply chain: research and development, engineering and finance. As a result, growth in supply-chain trade has been a boon for the powerful and profitable firms with headquarters in those cities, and for the highly skilled, well-compensated workers they employ. To the extent that further trade integration is seen as likely to reinforce these trends, TPP helps motivate opposition among red-state Republicans who are contemptuous and suspicious of big, blue-state metropolitan areas, and also among left-leaning Americans worried about inequality.

Worse still, from a strictly political perspective, is the focus within new trade agreements on stripping away non-tariff barriers. After decades of multinational diplomacy, tariff rates on most goods traded by most members of the WTO are too low to mention. Yet all sorts of obstacles to free exchange remain. Tradable services—in finance, or information industries—are subject to thickets of domestic regulation, for example conditions that must be satisfied before a firm can invest across borders. Simplifying and harmonising such rules should reduce trade costs. But when voters get a peek at such negotiations, they see their government offering to alter domestic standards—to sacrifice autonomy and sell out domestic interests, even—just to help the big firms make a few more bucks. Multinational companies do indeed exercise plenty of influence over what such pacts will entail. Yet even if they did not, the nature of the bargaining would make such dealmaking politically vulnerable.

What's in it for me

America's lot in this new world is, on the whole, a happy one. Many countries envy its fortunate position as a hub for innovative cities. Most studies of the potential effects of TPP conclude that the deal would raise American output by a small but meaningful amount: just under a percentage point of GDP, perhaps, over the next 15 years. But the obstacles confronting new trade deals are formidable. More generous redistribution, perhaps through an expanded programme of trade-adjustment assistance, could help neutralise some opposition. But discomfort with TPP is mostly rooted in a mistrust of the elite. Voters who are sceptical of the value of TPP will be unlikely to change their stripes without some demonstration that pacts of its kind benefit the many rather than just the few.

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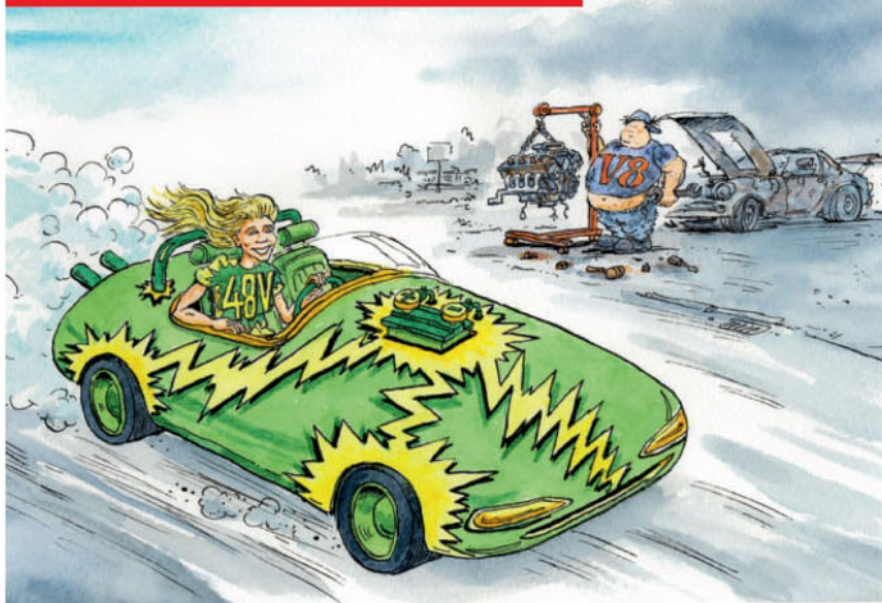
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Hybrid cars

At last, the 48 show

Upping the volts will make hybrid cars much cheaper

VOLTAGE is to electricity what pressure is to water: the more you have of it the more oomph you get. That is why electrical power lines work at high voltage. In the 1950s carmakers needed extra oomph of this sort to start the powerful high-compression engines then being introduced, so they increased the voltage of their vehicles' electrical systems from six to 12. Now voltages are going up again—to 48.

One reason is that cars are packed with more and more components, demanding more and more electrical power. A modern vehicle may have as many as 150 electric motors. But there is a second reason for the increase, too. Extra voltage lets engineers design cars in novel ways that boost engine output and efficiency. This can be used to make hybrids on the cheap (some people call them “mild hybrids”). These employ a combination of electric motors and combustion engines to cut both fuel consumption and polluting emissions.

The first production car to use 48 volts is the SQ7, a new luxury sports-utility vehicle made by Audi, a German firm that is part of the Volkswagen Group. It is not a hybrid, but it employs an electrically driven 48-volt turbine to force extra air into the engine when a spurt of power is needed. This provides a faster response than a turbocharger, which is operated by the vehicle's exhaust gases. The car also has a 48-volt active suspension. Again, this improves response time, permitting faster action from

the electric motors that control how the vehicle rolls on corners.

The hybrid possibilities of high voltage are shown by an experimental Ford Focus being put through its paces by the Advanced Diesel-Electric Powertrain (ADEPT) consortium, in Britain. ADEPT, which includes Ford itself, Ricardo, an engineering consultancy, the University of Nottingham and others, uses 48 volts to power components ranging from the water pump to an electric turbine. One of the test vehicle's most important features, though, is its water-cooled starter. Many cars use stop-start technology, which saves fuel by switching the engine off when the vehicle is stationary. To reignite as soon as the driver is ready to move off again requires a powerful, fast-acting starter. Twelve-volt starters can struggle, particularly when attached to heavier diesel engines.

Hybrid vigour

Improving stop-start performance is, however, only part of the picture. During braking the starter can act as a generator to recover a vehicle's kinetic energy—a crucial feature of hybrid technology. Here, 48-volt circuitry's energy-handling oomph helps again. In this case it comes from a lead-carbon battery, which can charge and discharge faster than the lead-acid variety used for standard 12-volt systems. Both the Focus and the SQ7 use 12-volt systems as well, and so require two batteries (the

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Audi's 48 volts come from a lithium-ion battery). Secondary 12-volt systems are likely to remain for less demanding devices, such as lighting and stereos, until production volumes increase sufficiently for more parts of a car to migrate to 48 volts.

The Focus, though, has one more important trick. It can draw on some of the 48-volt battery's power for “torque-assist”, in which the starter acts as a supplementary motor, helping the car accelerate. This not only gives a better ride, it also makes the car less polluting by reducing emissions, including nitrogen oxides.

These gases, known collectively as NO_x, are created by the heat-driven reaction together of air's two principal components, nitrogen and oxygen, during combustion. NO_x emissions both cause and aggravate respiratory diseases. Paradoxically, they can be the product of what is normally a good thing, a lean-burning, efficient engine. In demanding driving conditions, such as periods of acceleration, lean-burning engines can burn a bit too lean. That means less fuel than is ideally required is supplied to their combustion chambers. Since one of fuel's side-effects is to cool the engine, this can cause the engine to heat up and thus encourage NO_x formation. By helping turn the engine during acceleration, torque-assist stops this over-lean running, thus reducing emissions of NO_x.

There are yet more things a higher voltage can provide, says Nick Pascoe, the boss of Controlled Power Technologies, an ADEPT member that makes the Focus's starter. One is coasting. Once a car is cruising at a constant speed, torque-assist alone might be enough to keep it there. Moreover, it allows smaller engines to be used. A turbocharged 1.5-litre engine today can already produce power equivalent to that of an older 2-litre unit. With 48 volts the

▶ same power would, according to Mr Pascoe, be available with just a 1-litre engine. On top of this, instead of using an automatic gearbox stuffed with all the gubbins for nine speeds, as some now are, a car could have fewer gears and use torque-assist to fill the gaps. Smaller engines and gearboxes save weight, and would therefore reduce fuel consumption and associated emissions.

Exactly how well ADEPT's Focus performs will be announced soon, but it is expected to cut fuel consumption by 10-12% compared with even the most frugal cars in its class. In volume production the 48-volt systems it runs on would be significantly smaller and cheaper than those needed to build full hybrids, which use large and costly battery packs. When it comes to better fuel economy and lower emissions, some in the car industry reckon mild hybrids could yield 70% of the benefits of a full hybrid (even as those cars switch to 48 volts) at 30% of the cost.

Most carmakers and their suppliers are now working on 48-volt systems. Delphi, a Michigan-based group that is one of the world's largest suppliers of automotive parts, thinks mild hybrids could cut CO₂ emissions by 15-20%. Delphi expects that, by 2025, one in every ten cars sold around the world will be a 48-volt mild hybrid. Up-ping the volts, then, will make motoring much greener. ■

Anthropology

No hard feelings

Reconciliation after competition is more a masculine than a feminine trait

MEN have a long history of fighting with one another for dominance, but why such duels did not leave tribal unity in tatters and warriors less capable of working together to fend off attacks from predators and hostile clans remains a mystery. One common theory is that men more readily make up after fierce physical conflicts than do women. And an experiment run recently at Harvard University, by Joyce Benenson and Richard Wrangham, and published in *Current Biology*, suggests this may be true.

Tribal contests like Yanamamo clubbing duels, in which men take turns bashing each other on the head until one surrenders or is knocked out, were not regarded as suitable for the Harvard campus. The researchers speculated, however, that less lethal competitive sports could stand in for such pursuits, given that they are standardised, aggressive and intense confrontations which take place in front of



What's a grand-slam championship between friends?

an audience.

To this end, they collected 92 videos of male championship tournaments in tennis, table tennis, badminton and boxing, and 88 videos of female tournaments in these sports. Altogether, athletes from 44 countries were involved. Participants in the sports in question are expected by convention to make (peaceful) physical contact after the competition—by shaking hands after the racket sports or by embracing after boxing. Dr Benenson and Dr Wrangham timed these contacts, which they predicted would last longer in men than in women, and also recorded any spontaneous follow-ups, such as embraces after racket sports, arm-touching and pats on the back, which they predicted would be more common in men than in women.

On both counts they were right. Men made post-match physical contact for longer in all of the sports. In tennis, the male median contact time was 1.4 seconds while the female median was 0.8 seconds. In badminton it was 1.1 seconds for men and 0.8 seconds for women. In table tennis it was 0.6 seconds for men and 0.3 seconds for women. Boxing—the sport closest to real fighting—showed the greatest difference. Males made contact for 6.3 seconds after a bout. Females did so for 2.8 seconds.

Men also engaged in more touching after the handshake or post-boxing embrace. In tennis 42.5% of the matches between men concluded with the winner touching the loser's arm or body in addition to the handshake, while only 12.5% of women's matches ended this way. Ping pong showed similar results, with 33% of the male matches involving additional physical contact between the competitors while female matches showed none. (The high net in badminton and the many individuals interacting with fighters after box-

ing bouts made it impossible to monitor post-handshake contact in those sports.)

These results do not prove the hypothesis Dr Benenson and Dr Wrangham are testing, but they do support it. And such male bonding may go back a long way into the evolutionary past: similar differences between the sexes in post-conflict reconciliation have been seen in chimpanzees. Whether that means women are leaving the field of battle with more of a grudge than that borne by menfolk is a question for another experiment. ■

Graphene-based electronics

Bugs in the system

Bacteria may be the key to turning graphene into a semiconductor

SINCE its discovery in 2004 graphene, a form of carbon made of sheets a single atom thick, has been an invention in search of an application. In particular, it has fired engineers' imaginations with the possibility of making thin, flexible, semi-transparent electronics. But it has always promised more than it has delivered because, although it is an excellent conductor of electricity, its other electronic properties are lacklustre. First, instead of being easily channelled, electric current moves across a graphene sheet randomly and in all directions. Second, graphene does not have a bandgap—a property needed to create the distinct “on” and “off” electronic states that transistors rely on to work, and which is induced in a material by disrupting the way its electrons are distributed. ▶▶

▶ One way to open up a bandgap is to introduce atoms of other elements into a substance. For graphene, however, this reduces the conductivity that is one of its attractive features. Another approach is to modify the atomic sheets' shapes by, for example, wrinkling them—but existing methods of doing this do not control where the wrinkles form or how they are oriented.

That is about to change, and in a quite surprising way: by employing bacteria as templates. A team of researchers led by Vikas Berry of the University of Illinois, in Chicago, has found out how to produce wrinkles controllably in graphene, using a bacterium called *Bacillus subtilis*.

Bacillus subtilis cells are normally short, plump cylinders with smooth surfaces. If they get dehydrated, though, they shrink. That makes them wrinkle up, much like a grape shrivelling into a raisin. These wrinkles, Dr Berry and his team report in *ACS Nano*, can be patterned on to graphene.

The researchers started by placing a droplet of nutrient solution containing *Bacillus subtilis* onto a chip made of silica that had electrodes at either end. Running a current between the electrodes caused the bacteria themselves to become charged (positive at one end of the cylinder and negative at the other), and thus to line up parallel with the flow of current.

Next, they placed a sheet of graphene on top of the aligned bacteria and cooked the lot in a vacuum chamber heated to 250°C. This caused the bacteria to dehydrate and shrink, dragging the graphene sheet with them so that it took on the wrinkle patterns of the cells underneath it.

Crucially, bacteria do not wrinkle at random. *Bacillus subtilis* cells form wrinkles about 33 nanometres (billionths of a metre) apart—so that was the separation of the ridges imposed on the graphene. Unfortunately, this is too far apart to create a significant bandgap. The ridges do not disrupt graphene's electronic structure enough. To do that, they would have to be less than five nanometres apart. But Dr Berry thinks such distances might be achieved by using another species of bacterium, one with stronger cell walls—or, perhaps, different sorts of cells altogether.

Even the 33-nanometre wrinkles, though, give graphene some interesting properties. Instead of zipping randomly across it, electrons traversing a sheet of wrinkly graphene are channelled between the ridges. This suggests that, if the bandgap problem can be resolved, then placing bacteria in preset arrays to create complex channel patterns would be the equivalent of etching a silicon chip. Components like the logic gates which form the basis of computing could thus be created.

Before that happens, though, two other problems need to be resolved. One is removing the bacteria and releasing the wrinkled graphene. That will mean find-

ing the right chemical to do the loosening. The other is reproducibility. Individual bacteria differ slightly, not least because they are often of different ages, so any product that used unsorted cells as templates would be unreliable. This might be dealt with by cell-sorting techniques, or even by synthesising artificial scaffolds that behave similarly to cells. These, though, are details. The important thing is that Dr Berry has managed to push graphene towards semiconductivity in a novel and intriguing manner. The search for an application for the stuff has taken a step forward. ■

Evolution

Bee kind to viruses

A strange tale of collaboration between plants, pathogens and insects

CUCUMBER mosaic virus is not restricted to its eponymous host. It can also ravage tomatoes—stunting them and causing them to produce contorted tendril-like leaves. Given this devastation, it is surprising susceptible plants continue to exist; natural selection should have produced resistance years ago. A paper in this week's *PLoS Pathogens*, however, explains the apparent contradiction. The team that wrote it, led by John Carr of Cambridge University, found that the virus actually helps its host to reproduce. It does so using an un-



The smell of sickly sweetness

suspecting accomplice: the bumble-bee.

Like many discoveries, this one was accidental. Dr Carr had ordered some equipment to analyse the volatile chemicals emitted by infected tomato plants. While he was waiting for it to arrive, a colleague offered to lend him some bees, as these pollinators are known for their sense of smell. His team placed both healthy and infected plants in a greenhouse, covered them so that the bees could smell but not see them, and released the insects.

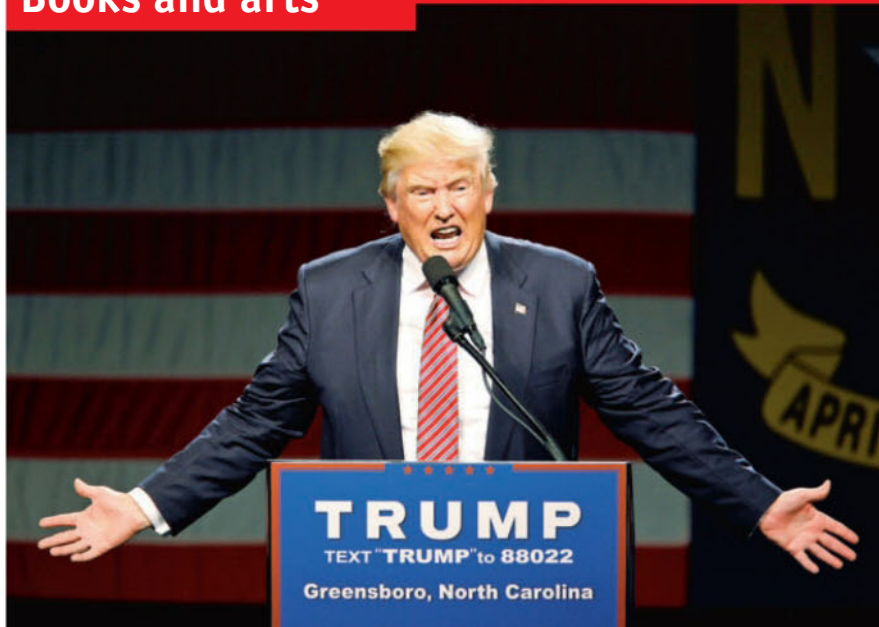
The bees could indeed tell the difference—but to Dr Carr's surprise they did not favour the healthy plants. Rather, they strongly preferred the infected ones. For some viral strains, they were four times more likely to visit an infected plant than a healthy one. Subsequent experiments, carried out after the analytical apparatus had arrived, showed that this difference in behaviour was, indeed, a response to differences in the chemicals that infected and uninfected plants give off.

The question was how the bees' preference played into the plants' evolution. Tomatoes are able to fertilise themselves, without need of a pollinator, yet even this self-pollination can be assisted by a bee visiting a flower. Vibrations caused by the insect's buzzing help release pollen from the flower's anthers so that it can fall onto the stigma. Could this process, Dr Carr wondered, make up for the evolutionary disadvantage the virus otherwise inflicts?

To investigate, he and his colleagues grew both healthy and infected tomatoes in a greenhouse with no bees, and a similar mixture in a greenhouse into which bees were released one at a time, and their movements tracked. They then analysed the seeds of the fruits of each plant as a proxy for evolutionary fitness.

All of the seeds they looked at seemed viable. What differed was the number of seeds in each fruit. In the bee-free greenhouse, infected plants had only about 50 seeds per fruit, whereas healthy ones averaged 70. When bees were present, though, something strange happened. The seed count of fruits from healthy flowers visited by bees increased to 85—but that of the flowers of infected plants jumped much higher, to 115. Further investigation showed a possible reason. Not only did bees visit the infected plants more, but they also spent longer buzzing around infected flowers. The extra pollen thus displaced probably explains how the sickly plants outproduced their healthy confrères.

Using these experimental data, the researchers modelled how the system might have evolved. They found that the pollinator's preference for the smell of infected plants was big enough to stop the emergence of viral-resistance in tomatoes. That explains what is in it for the tomatoes and also for the virus. What the bees get out of it, though, remains mysterious. ■



American memoirs

Promises, promises

Why Donald Trump speaks to so many Americans

THE favoured candidate of the white working class in the presidential campaign is a man who travels on his own private aircraft and gives interviews from his penthouse in a building emblazoned with his name in gold letters. When he started out in property it was with a “small loan of \$1m” from his father. Among white voters without college degrees, Donald Trump holds a commanding lead over his Democratic opponent, Hillary Clinton. (“I love the poorly educated,” he crowed after one of his many primary victories.)

How did Mr Trump pull this off? The same way unscrupulous people often succeed: he saw an opportunity and exploited it. White working-class voters felt abandoned by both parties. As unions grew less powerful, Democrats became the party of educated coastal voters and minorities. This divide was cemented by eight years of Barack Obama; white working-class voters attracted by Bill Clinton’s folksy charm were repelled by a black president with a foreign-sounding name and a chilly, cerebral manner.

Republicans, meanwhile, consistently argued for free trade and deregulation, policies that, whatever their general merits, left some working-class voters still worse off. Meanwhile, coal is in decline and automation has made secure low-skilled manufacturing jobs increasingly rare. Life at the low end of the income scale has grown more tenuous: the inflation-ad-

Hillbilly Elegy: A Memoir of a Family and Culture in Crisis. By J.D. Vance.
Harper; 264 pages; \$27.99

justed income of households headed by a non-college graduate fell by 19% between 1999 and 2014. Also during that period, death rates for middle-aged whites without college education crept up, even as they plunged for middle-aged blacks and Hispanics. The cause was not disease, but suicide and the effects of substance abuse.

Mr Trump has courted these voters as assiduously as he has insulted everyone else. He promises to bring manufacturing jobs back while keeping immigrants out. To minorities, many women and gay Americans, his slogan—“Make America great again”—sounds like a promise to bring back a social order that oppressed them. To white working-class voters, it sounds like the opposite. America’s political system and the white working class have lost faith in each other. J.D. Vance’s memoir, “Hillbilly Elegy”, offers a starkly honest look at what that shattering of faith feels like for a family who lived through it. Not all white working-class voters are rural Appalachians, as Mr Vance’s family is, but the problems he describes are widespread. You will not read a more important book about America this year.

Mr Vance’s family comes from Jackson, a small town in Kentucky’s coal country. In

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a culture that prizes toughness and honour, his family was “hillbilly royalty”: his grandmother came from “a family that would rather shoot at you than argue with you”. One day when his grandfather came home drunk, his grandmother, having threatened to kill him if he ever did that again, doused him with petrol and dropped a lit match on his chest. He survived with only minor burns after their 11-year-old daughter put out the flames. Mr Vance’s great uncle once heard another young man make a crude comment about his sister, the author’s grandmother; the man said he wanted to “eat her panties”. Mr Vance’s great uncle forced the young man to do just that—at knifepoint.

For his family, as in many others like his—ethnically Scots-Irish, rural—“poverty is the family tradition”. In the southern slave economy they were day-labourers and sharecroppers. Eventually many became miners or millworkers. In the 1940s his grandparents, like millions of other poor white Appalachians, left to find better jobs (this overlapped with another mass migration—of African-Americans, out of the rural South to cities in the north, West, Midwest and north-east). The Vances ended up in Middletown, a steel town in south-western Ohio so full of people like them that it was known as “Middletucky”. His grandfather worked in the Armco steel plant, and raised a family on his salary.

But then things started to go south. Mr Vance’s mother abused alcohol and prescription pills, and had a steady stream of unsuitable male partners; Mr Vance barely knew his father until he was almost in his teens. The relationship lessons he learned from his mother included: “Never speak at a reasonable volume when screaming will do...it’s okay to slap and punch, so long as the man doesn’t hit first; always express your feelings in a way that’s insulting and ▶▶

hurtful to your partner.” Steady jobs for workers without college degrees grew scarce. In the 20th century Appalachians mined the coal and made the steel that built America; in the 21st, however, the divide deepened between Appalachia and the flourishing coasts, and few people in Middletown knew quite how to bridge it.

Mr Vance figured it out. He joined the Marines, and then graduated from Ohio State and Yale Law School. Today he works at an investment firm in San Francisco and is happily married. What did he have that others didn't? His grandparents made sure he studied hard; along with his older sister, they gave him some semblance of stability.

But he also had grit. He refuses the easy consolation of excuses. Addiction may function as a disease, but believing that it is one makes it that much easier to take the next drink or pop the next pill; the user can cede responsibility for his own actions. Government may have let Appalachians down, Mr Vance argues, but government does not make them skip work, smack their kids or turn every disagreement into a blood feud. Mr Vance is a conservative in the oldest and best sense, and his prescription is a bracing tonic for the poison being sold to his people by the pandering huckster seeking the presidency: “We hillbillies must wake the hell up,” he urges. “It starts when we stop blaming Obama or Bush or faceless companies and ask ourselves what we can do to make things better.” ■

America in the 1970s

That's rich

American Heiress: The Wild Saga of the Kidnapping, Crimes and Trial of Patty Hearst. By Jeffrey Toobin. *Doubleday*; 371 pages; \$28.95

ON FEBRUARY 4th 1974, just a couple of weeks before her 20th birthday, Patricia Campbell Hearst was kidnapped from her flat in Berkeley by the so-called Symbionese Liberation Army (SLA). On April 15th she took part in robbing a San Francisco bank deliberately chosen so that its camera would show her face. A month later she fired her machine-gun at a sporting-goods shop in Los Angeles to help an SLA comrade escape pursuit.

But was Patty Hearst, daughter of one of America's great media families, really an unwilling urban guerrilla intent only on staying alive? Or had she fallen prey to “Stockholm syndrome”, named after hostages in a Swedish bank siege in 1973 who sympathised with their captors—and become a genuine revolutionary?

The question is hardly new. Nor is the



First round

contrast that Jeffrey Toobin draws, in his new book, “American Heiress”, between the “hopeful” 1960s of flower power and peaceful protest and the “sour” 1970s of Watergate, Nixon, the oil embargo and the continuing Vietnam quagmire.

Ms Hearst's trial lawyers sought to present her as a brainwashed innocent, but Mr Toobin does not accept that argument. For him it made sense for Ms Hearst to go along with that particular defence: “Patricia was always a rational actor—with the SLA and now with her lawyers. Even in chaotic surroundings, she knew where her best interests lay.” Hence the importance of her taped statement to a local radio station two months after the kidnapping: “I have been given the choice of (one) being released in a safe area, or (two) joining the forces of the Symbionese Liberation Army, and fighting for my freedom and the freedom of all oppressed people. I have chosen to stay and fight.”

In retrospect it was a futile fight. Mr Toobin neatly skewers the antics of the SLA, with their *noms de guerre* (Patty Hearst became “Tania”) and pretentious communiqués signed off with: “Death to the Fascist insect that preys upon the life of the people.” The SLA, a handful of misfits, were led by an escaped convict called Donald DeFreeze, who was also known as Cinque M'tume or Cin. They espoused black power, but Cin was the SLA's only African-American. However, Mr Toobin acknowledges the influences of other groups that prevailed at the time, such as the Weathermen and the Black Panthers. In 1974 activists set off some 2,044 bombings, claiming 24 lives.

Ms Hearst, whose prison sentence was commuted by Jimmy Carter and who was later given a presidential pardon by Bill Clinton, chose not to co-operate with Mr

Toobin. Was that wise? Mr Toobin has amassed a mountain of detail on Tania and the SLA, including files that he purchased from one of Tania's SLA comrades. He has put them to good use here, and says he intends to donate them to Harvard Law School, his alma mater.

As a former lawyer (and now legal analyst for CNN), the author is careful to note that the evidence for and against Patty Hearst's behaviour is “contradictory”. However, on the tactics of Ms Hearst's self-promoting lead advocate, F. Lee Bailey, known to the wider world as part of the O.J. Simpson defence team, Mr Toobin pulls no punches: his performance was “rocky”. As Mr Toobin notes, Mr Bailey has since been disbarred in Florida and is now “doing business as a ‘legal consultant’ in a single room above a beauty salon in a resort town in Maine”.

The Patty Hearst story has been written by many authors, including Ms Hearst herself. But Mr Toobin makes a compelling narrator, and his coverage of the Hearst trial is quite brilliant. He also makes a wounding point: the well-born and well-connected Patty Hearst went to prison, but her sentence was commuted and then she was pardoned. Yet America's prisons “teem with convicts who were also led astray and who committed lesser crimes than Patricia. These unfortunate souls have no chance at even a single act of clemency, much less an unprecedented two.” ■

New fiction

Irish charm

The Glorious Heresies. By Lisa McInerney. *Tim Duggan Books*; 389 pages; \$27. *John Murray*; £8.99

LISA MCINERNEY'S first novel takes off like a house on fire and doesn't stop until it has singed the reader's heart. Love, crime and cockeyed redemption meet on a hardscrabble housing estate in County Cork, Ireland, in a rare blend of heartbreak and humour. “Glorious Heresies”, which is just being published in America, has already won two big British prizes, establishing Ms McInerney, a former blogger from Galway, as a writer to watch.

The lives in this interlocking jigsaw don't just touch, but are bashed together through proximity, poverty and violence. Ryan Cusack is a bright boy who is regularly beaten by his alcoholic father; Maureen Phelan is the slightly lunatic mother of the local crime kingpin. When Maureen unintentionally kills an intruder with her “Holy Stone”, a gaudy gold ornament featuring the Virgin and a chubby Jesus, a vivid ▶▶

▶ collection of lost souls begins to collide.

Maureen's gangster son, Jimmy, cleans up the mess, but soon regrets rekindling the relationship with his mother. Maureen is cracked and contradictory, an oracular, foul-mouthed figure, the embodiment of Ireland at its most destructive. Her windowsills are lined with religious keepsakes. Yet she sets off on a hilarious quest to hold the Catholic church to account for the lives it has blighted, committing acts of arson in an inspired—and deranged—effort to redeem both the land and herself.

Ms McInerney draws memorable characters, skewering them in a phrase. Tony, Ryan's dad, is "taxidermy reanimated"; Jimmy, with long experience at the "conveyor belt of deviants", reckons that Tony's malevolent neighbour Tara "failed quality

control". Maureen's first encounter with a sad prostitute reads like a stand-up routine. Yet if this sounds like a romp, it is not. These harsh lives are real; the reader can't help but recognise the losers of the Celtic miracle as both damaged and fully aware of their plight: "savagely articulate", in one reviewer's words.

The legacy of drink and dogma cascades through the generations. Yet Ms McInerney takes the story deeper, skilfully setting a funeral pyre "for *that* Ireland": the Ireland of children wrenched from their mothers and ruled by the "Holy Trinity: the priests, the nuns and the neighbours". By the end, it acts on the reader much like Maureen and a match. "Nothing as cleansing as a fire," she says—to scour the rot and make resurrection possible. ■

since most of that gritty, heartfelt music has been civilised out of existence.

By the mid-1900s the world was being scoured by musicologists seeking to document and preserve, with ethnographic labels giving them altruistic support: Folkways in America, Topic in Britain and Ocora, set up by the French government initially to record the music of the French West African colonies as they moved towards independence. It was a measure of the prestige attached to field-recordings that, in 1977, one of the Nonesuch label's recordings of traditional Balinese gamelan music was sent into outer space as part of the Voyager Golden Record.

The world music boom of the 1990s was galvanised by a bestselling Cuban album, "Buena Vista Social Club". Who could not be fired by the spectacle of some very old men and women (and their label) striking gold with forgotten music of irresistible charm? Record companies rushed to join the bonanza, but it lasted only a few years. The growth of digital media and the decline in the market for specialist CDs (and record shops' increasing reluctance to stock them) turned boom into bust.

This slump hit the ethnographic companies hard. Some closed down, and others abandoned CDs in favour of digital distribution. The long-awaited release of Dust-to-Digital's box of Moroccan field recordings, made in the 1950s by Paul Bowles, author of "The Sheltering Sky", highlights another marketing ploy: with Bowles's notes handsomely presented in a leather-bound book, the box is an art-object in itself. But Topic now survives on its backlist, and is no longer able to finance new field recordings; Ocora still bravely continues to produce them, though its director Serge Noël-Ranaivo admits the label's future is "not assured".

Smithsonian Folkways is in fine fettle, ▶▶

World music

Humanity's heartbeat

Field recordings, long a source of musical history, are under threat everywhere

“**W**HOWER wishes to collect from the mouth of the people should hurry; folk songs are disappearing one after another.” Thus wrote Ludolf Parisius, a German song collector, nearly two centuries ago. Others have since said the same, for just as spoken languages can die, so too can musical ones.

A century ago song-collection was an important part of the study of musical languages. There were archives of “field recordings” in Berlin, London and Washington, DC, which could express deep social truth: they were the heartbeat of humanity. They served other purposes, too. Like many of their contemporaries, Zoltan Kodaly and Bela Bartok, two Hungarians who visited Magyar villages in the early 1900s, used the folk music they hoovered up to enrich their own compositions.

Meanwhile, the nascent record companies were also getting in on the act. But the British Gramophone Company and its German and American rivals had little interest in musicology. The songs and dances they recorded in Central and South-East Asia were for sale back to the people of those regions, who would, it was hoped, buy the expensive equipment needed to play them. It is a sweet historical irony that their shellac discs are now musicological treasures: some antique Balinese pieces are known solely because in the early 1930s a Canadian composer bought some of those records in a shop in Bali. The warehouse manager, angry that his wares were not selling, smashed the rest in a rage.

It was only in 1933, when John Lomax,

an American folklorist, began making his marathon collection of recordings from the American South for the Library of Congress, that the significance of field recordings became generally realised. Among other luminaries, Lomax recorded Huddie “Leadbelly” Ledbetter, a well-known blues guitarist who was doing time in a Louisiana prison. Lomax's son, Alan, carried on his work, with surveys of the folk music of Spain and Italy, including children's songs in dirt-poor Extremadura and falsetto extravaganzas by dockers in Genoa. These now offer unique glimpses of the past,



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▶ in large part because of its unparalleled resources. The not-for-profit label of the American museum follows the policy of Moses Asch, whose company, Folkways, it acquired in 1987: every release should be kept available to the public, whether profitable or not. Smithsonian's distribution is increasingly digital and it is expanding its collection by acquiring others, including 127 unreleased albums of traditional music that were made by UNESCO in over 70 countries. It still releases new field recordings, but its splendid ten-CD survey of the music of Central Asia was only possible thanks to a subsidy from the Aga Khan

Trust for Culture. A projected African series will not happen without similar help.

Professor Theodore Levin, producer of that Central Asian series, is a rare optimist. "Ethnographic recordings have never been easier to make and disseminate," he says. "Anyone with a Zoom recorder and a laptop can make digital field recordings and put them online." He also points to the proliferation of cross-cultural fusions now being recorded.

But there are more reasons to be pessimistic. YouTube recordings are no substitute for the scrupulously curated products of Smithsonian and Ocora, and although

some inspired fusions are being created in Central Asia, most come and go without a trace. Traditional music typically evolves slowly, and in a stable environment. If its ecosystem is destroyed, it can wither and die. New musical forms, rap included, continue emerging. But, as sound archives now recognise, local music is fading away. Parisius, the German collector of early song, was spot-on. ■

Correction: In our review of David Goldblatt's "The Games" we wrote that between 1928 and 1968 there were no women's races of more than 200 metres in the Olympics ("Fanfare", July 30th). The correct period should have been from 1928 until 1960.

Johnson | Would that it were so simple

The strange tale of the subjunctive in English

IN A recent supplement to *The Economist*, called "The World If", we considered several hypothetical futures under such headlines as: "If Donald Trump was president" or "If the ocean was transparent". Several readers wrote in dismay: surely we meant: "If Donald Trump were president" and "If the ocean were transparent". Does no one know the English subjunctive anymore?

In fact, the decision to use "If the ocean was..." was made consciously, after some debate. It looks less stilted in a headline. It feels a bit less distant from reality. And because of the design of the pages, the words "...the ocean was transparent" stood alone. They would have looked bizarre as "...the ocean were transparent".

Normally we would not let design considerations govern grammatical ones. But is there a case to be made for "if he was..."? Yes. There is a reason grammar books must hound people to use "if he were..." Most English-speakers use "if he was" at least some of the time in sentences that call for the subjunctive, and some of them use it exclusively.

How could this arise? Subjunctive "were" is an odd bird. Since Joseph Priestley in 1761, grammarians have fretted that it was on its way to disappearing from English. There are 37,704 verbs in the Oxford English Dictionary; only one has a special subjunctive form—"to be". Even then, "to be" has a special subjunctive for only two of the six grammatical persons: first-person singular and third-person singular. In the other 37,703 verbs the subjunctive ("if we had") looks just like the ordinary indicative ("we had").

As it always does, incidentally, for all those other verbs. "If you ate that, you'd get sick" is the subjunctive; the "if" clause is about an unreal, hypothetical situation. But "if you ate that, I'm mightily im-



pressed" is indicative (the "if" clause indicates something that is quite possibly true). Both forms of "ate" look like the plain past tense, though. It's an odd theory of grammar to say that English has a full, robust and mandatory subjunctive, and yet that in almost every instance, it looks just like the plain past tense.

Major bits of grammar—like the existence of a subjunctive—are usually a lot more visible than this. The subjunctive has a distinct form for all verbs in many languages. In Spanish, for example, *sabe* (he knows) becomes *sepa*. It's required to describe doubts, as in "I don't think he knows..." Portuguese even has a future subjunctive (for "when he comes tomorrow..."), and German has one for reported speech ("She said that she is...")

The English "were" is the runt of the subjunctive litter, used on just one verb, just some of the time, and not by everyone. And some experts reckon this is not a sub-

jective at all. "The Cambridge Grammar of the English Language", by Geoffrey Pullum and Rodney Huddleston, calls counterfactual "were" the "irrealis", rather than the subjunctive, and says that it is an unstable remnant of an earlier system.

They reserve "subjunctive" to describe a fuller and healthier bit of English: things like "so be it", "come what may", and "he insists that students be punctual". Other grammarians call this the English present subjunctive, and say that "if he were" is the past subjunctive. Messrs Pullum and Huddleston reply that the present subjunctive is so different from the "if he were" cases that the term "subjunctive" makes little sense covering both—hence their proposal of irrealis for the "if he were" cases. Outsiders to academic linguistics are often shocked that there is debate on basic facts like what the subjunctive is. But language is much more complex than short-and-sharp grammars portray. (The "Cambridge Grammar" is not one of those, at 1,842 pages.)

The fact is that "if he were" is still in good health in edited English: it is not archaic like the King James Bible's "If he be poor" (yet another subjunctive). But "if he were" is slightly formal, a bit tricky and not universally observed. Our choice of "If Donald Trump was..." comports with the many grammar books that consider "if he was" simply less formal. Defoe, Swift and Addison were using "was" in such sentences three centuries ago.

Many people think that grammar always gives a single answer to any question. But it doesn't. In the recent Coen brothers film "Hail, Caesar!", a stuffy older English film director struggles endlessly to get a backwoods-bred young American actor to master a single line, which both includes and sums up the subjunctive: "Would that it were so simple..."



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REPUBLIKA E SHQIPËRIË
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Notice for postponement of the deadline for submission and opening of bids for the competitive procedure for the concession of the HPP "Katundi i Ri"

Pursuant to Law no. 125/2013 "For Concessions and Public Private Partnership" amended, Order of the Minister no. 576, date 10.07.2013 "On approval of rules for identifying, evaluating and granting of concessions for hydropower plants" amended, and Order of the Minister no. 130, date 12.03.2014 "For performing by electronic means the competitive procedures of concession/public private partnership". The Contracting Authority, the Ministry of Energy and Industry of Albania, announces to all the economic operators that:

The Deadline for submission of bids is:

No later than: Date **5.09.2016**, Time **12.00 Noon**

Bids must be submitted by electronic means. The economic operators should submit their bid electronically in the official website of the Public Procurement Agency, www.app.gov.al

The Deadline for opening of bids is:

No later than: Date **5.09.2016**, Time **12.00 Noon**

Place: Ministry of Energy and Industry, by electronic means.

Regarding the above information, hoping to enable the delivery of as many bids, all interested economic operators are invited to participate in the bidding procedure for the concession of "Katundi i Ri" HPP.

Thank you for your understanding.

MINISTER DAMIAN GJIKNURI

Appointments

Luxembourg House of Financial Technology: Appointment of a CEO



With a view to further strengthen Luxembourg's FinTech ecosystem, Luxembourg for Finance is currently setting up the Luxembourg House of Financial Technology or LHoFT. Offering start-up incubation as well as co-working spaces, the LHoFT brings together all parts of the FinTech community with the aim of fostering innovation in financial services.

We are looking for a dynamic and highly motivated **CEO**, with an international profile, to set up and lead this exciting new platform.

What does your mission involve?

You will set up and run the Luxembourg House of Financial Technology. You will lead the activities of the LHoFT, including the development of acceleration and innovation programs as well as coordinate and successfully implement collaborative R&D projects. Internationally, you will connect the LHoFT with leading FinTech platforms in other countries.

What profile are we looking for?

You have a passion for entrepreneurship and at least 15 years of experience in leading digital transformation projects or running start-ups in financial services. You have extensive exposure in the international FinTech scene and a robust understanding of the underlying technological, regulatory and business trends. Proficient in English, you have outstanding communication skills and are a solution-driven leader than can inspire your team and others around you.

How To Apply

Please send your CV and a brief description of what makes you uniquely qualified to lead the LHoFT to Nicolas Mackel, CEO of Luxembourg for Finance, by 31 August 2016: nicolas.mackel@lff.lu

Economic data

% change on year ago

	Gross domestic product			Industrial production	Consumer prices		Unemployment rate, %	Current-account balance		Budget balance	Interest rates, %	Currency units, per \$	
	latest	qtr*	2016 ⁱ		latest	latest		2016 ⁱ	latest 12 months, \$bn			% of GDP 2016 ⁱ	% of GDP 2016 ⁱ
United States	+1.2 Q2	+1.2	+1.7	-0.7 Jun	+1.0 Jun	+1.4	4.9 Jul	-473.1 Q1	-2.5	-2.9	1.57	-	-
China	+6.7 Q2	+7.4	+6.5	+6.2 Jun	+1.8 Jul	+2.0	4.1 Q2 [§]	+256.1 Q2	+2.7	-3.8	2.56 ^{§§}	6.64	6.21
Japan	+0.1 Q1	+1.9	+0.5	-1.9 Jun	-0.5 Jun	-0.1	3.1 Jun	+163.5 Jun	+3.4	-5.0	-0.04	101	125
Britain	+2.2 Q2	+2.4	+1.6	+1.6 Jun	+0.5 Jun	+0.7	4.9 Apr ^{††}	-161.9 Q1	-5.1	-4.0	0.71	0.77	0.64
Canada	+1.1 Q1	+2.4	+1.4	-2.8 May	+1.5 Jun	+1.7	6.9 Jul	-47.6 Q1	-2.4	-2.5	0.99	1.31	1.31
Euro area	+1.6 Q2	+1.2	+1.5	+0.5 May	+0.2 Jul	+0.3	10.1 Jun	+392.0 May	+3.0	-1.8	-0.12	0.90	0.91
Austria	+1.6 Q1	-0.7	+1.3	+0.8 May	+0.6 Jun	+1.2	6.2 Jun	+10.5 Q1	+2.3	-1.6	0.08	0.90	0.91
Belgium	+1.4 Q2	+2.0	+1.3	+1.7 May	+2.3 Jul	+1.7	8.5 Jun	+6.5 Mar	+1.1	-2.8	0.12	0.90	0.91
France	+1.4 Q2	-0.2	+1.4	-1.3 Jun	+0.2 Jul	+0.3	9.9 Jun	-21.4 Jun [‡]	-0.5	-3.3	0.14	0.90	0.91
Germany	+1.6 Q1	+2.7	+1.5	+0.5 Jun	+0.4 Jul	+0.4	6.1 Jul	+307.0 Jun	+8.1	+0.7	-0.12	0.90	0.91
Greece	-1.3 Q1	-1.9	-0.6	-7.4 Jun	-1.0 Jul	-0.2	23.3 Apr	+0.9 May	-0.2	-4.6	8.36	0.90	0.91
Italy	+1.0 Q1	+1.0	+0.9	-1.0 Jun	-0.1 Jul	nil	11.6 Jun	+47.7 May	+2.1	-2.6	1.07	0.90	0.91
Netherlands	+1.5 Q1	+1.8	+1.5	+1.6 Jun	-0.3 Jul	+0.3	7.5 Jun	+62.0 Q1	+9.9	-1.5	0.02	0.90	0.91
Spain	+3.2 Q2	+2.8	+2.8	+1.0 Jun	-0.6 Jul	-0.4	19.9 Jun	+22.0 May	+1.3	-4.3	1.06	0.90	0.91
Czech Republic	+2.7 Q1	+1.6	+2.3	+3.8 Jun	+0.5 Jul	+0.5	5.4 Jul [§]	+2.7 Q1	+1.1	-0.5	0.34	24.2	24.6
Denmark	-0.1 Q1	+2.7	+1.2	-0.8 Jun	+0.3 Jul	+0.7	4.2 Jun	+18.3 Jun	+6.0	-2.5	0.06	6.66	6.80
Norway	+0.7 Q1	+4.0	+1.0	-9.0 Jun	+4.4 Jul	+3.1	4.7 May ^{††}	+29.3 Q1	+7.0	+3.0	1.04	8.26	8.22
Poland	+2.5 Q1	-0.4	+3.3	+6.0 Jun	-0.9 Jul	-0.8	8.6 Jul [§]	-2.7 May	-0.8	-2.9	2.69	3.82	3.83
Russia	-1.2 Q1	na	-0.8	+1.8 Jun	+7.2 Jul	+7.2	5.4 Jun [§]	+38.4 Q2	+2.9	-3.9	8.24	64.6	63.5
Sweden	+3.1 Q2	+1.2	+3.5	-1.4 Jun	+1.0 Jun	+1.0	7.6 Jun [§]	+28.2 Q1	+5.7	-0.4	0.12	8.46	8.72
Switzerland	+0.7 Q1	+0.4	+1.0	+1.0 Q1	-0.2 Jul	-0.5	3.3 Jul	+71.9 Q1	+9.2	+0.2	-0.52	0.98	0.99
Turkey	+4.8 Q1	na	+3.4	+1.1 Jun	+8.8 Jul	+7.5	9.3 Apr [§]	-27.2 May	-4.7	-2.0	9.59	2.96	2.79
Australia	+3.1 Q1	+4.3	+2.7	+4.8 Q1	+1.0 Q2	+1.3	5.8 Jun	-62.3 Q1	-4.5	-2.1	1.87	1.30	1.35
Hong Kong	+0.8 Q1	-1.8	+1.5	-0.3 Q1	+2.5 Jun	+2.6	3.4 Jun ^{††}	+11.9 Q1	+3.0	nil	0.97	7.76	7.75
India	+7.9 Q1	+9.6	+7.4	+1.2 May	+5.8 Jun	+5.1	4.9 2013	-22.1 Q1	-1.2	-3.8	7.10	66.7	63.9
Indonesia	+5.2 Q2	na	+5.0	+9.1 Jun	+3.2 Jul	+4.0	5.5 Q1 [§]	-18.2 Q1	-2.4	-2.3	6.78	13,114	13,549
Malaysia	+4.2 Q1	na	+4.3	+2.7 May	+1.6 Jun	+2.0	3.4 May [§]	+7.0 Q1	+2.8	-3.4	3.62	3.99	3.93
Pakistan	+5.7 2016**	na	+5.7	-1.4 May	+4.0 Jul	+3.7	5.9 2015	-2.5 Q2	-0.8	-4.6	8.03 ^{†††}	105	102
Philippines	+6.9 Q1	+4.5	+5.8	+8.5 Jun	+1.9 Jul	+1.7	6.1 Q2 [§]	+6.7 Mar	+3.0	-1.0	3.22	46.8	45.8
Singapore	+2.1 Q2	+0.3	+1.4	-0.3 Jun	-0.7 Jun	-0.8	2.1 Q2	+54.8 Q1	+19.5	+0.7	1.78	1.34	1.38
South Korea	+3.1 Q2	+2.9	+2.5	+0.8 Jun	+0.7 Jul	+1.2	3.5 Jul [§]	+105.5 Jun	+7.5	-1.2	1.39	1,095	1,163
Taiwan	+0.7 Q2	+0.1	+0.5	+0.9 Jun	+1.2 Jul	+1.1	4.0 Jun	+74.8 Q1	+13.3	-1.0	0.69	31.2	31.6
Thailand	+3.2 Q1	+3.8	+2.7	+0.8 Jun	+0.1 Jul	+0.3	1.0 Jun [§]	+40.1 Q1	+6.1	-2.6	2.03	34.8	35.2
Argentina	+0.5 Q1	-2.7	-0.8	-2.5 Oct	— ***	—	5.9 Q3 [§]	-15.0 Q1	-1.6	-4.9	na	14.8	9.22
Brazil	-5.4 Q1	-1.1	-3.5	-5.9 Jun	+8.7 Jul	+8.0	11.3 Jun [§]	-29.4 Jun	-1.1	-8.2	11.82	3.14	3.48
Chile	+2.0 Q1	+5.3	+1.6	-3.8 Jun	+4.0 Jul	+4.1	6.9 Jun ^{§††}	-4.7 Q1	-2.1	-2.5	4.37	649	676
Colombia	+2.5 Q1	+0.6	+2.0	+4.5 May	+9.0 Jul	+7.8	8.9 Jun [§]	-16.9 Q1	-6.1	-2.9	7.57	2,954	2,913
Mexico	+2.6 Q1	+3.3	+2.2	+0.4 May	+2.7 Jul	+3.0	3.9 Jun	-30.5 Q1	-3.0	-3.0	5.89	18.4	16.2
Venezuela	-8.8 Q4~	-8.4	-15.1	na	na	+546	7.3 Apr [§]	-17.8 Q3~	-3.0	-24.2	11.52	9.99	6.31
Egypt	+6.7 Q1	na	+3.0	-15.8 May	+14.0 Jul	+12.1	12.7 Q1 [§]	-18.3 Q1	-6.6	-11.5	na	8.88	7.83
Israel	+2.1 Q1	+1.7	+2.2	+0.8 May	-0.8 Jun	-0.5	4.8 Jun	+14.7 Q1	+4.0	-2.5	1.69	3.81	3.80
Saudi Arabia	+3.5 2015	na	+0.9	na	+4.1 Jun	+4.4	5.6 2015	-59.5 Q1	-8.6	-13.1	na	3.75	3.75
South Africa	-0.2 Q1	-1.2	+0.4	+3.8 May	+6.3 Jun	+5.7	26.6 Q2 [§]	-13.4 Q1	-3.0	-3.3	8.45	13.3	12.7

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. ^{§§§}5-year yield. ***Official number not yet proved to be reliable; The State Street PriceStats Inflation Index, June 36.96%; year ago 26.70% ^{††††}Dollar-denominated bonds.

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Markets

	Index Aug 10th	% change on		
		one week	Dec 31st 2015	
			in local currency	in \$ terms
United States (DJIA)	18,495.7	+0.8	+6.1	+6.1
China (SSEA)	3,160.2	+1.4	-14.7	-16.6
Japan (Nikkei 225)	16,735.1	+4.1	-12.1	+4.4
Britain (FTSE 100)	6,866.4	+3.5	+10.0	-2.9
Canada (S&P TSX)	14,775.0	+1.8	+13.6	+20.9
Euro area (FTSE Euro 100)	1,029.2	+3.6	-6.0	-3.4
Euro area (EURO STOXX 50)	3,018.5	+3.7	-7.6	-5.1
Austria (ATX)	2,267.2	+4.6	-5.4	-2.8
Belgium (Bel 20)	3,490.5	+2.6	-5.7	-3.1
France (CAC 40)	4,452.0	+3.0	-4.0	-1.3
Germany (DAX)*	10,650.9	+4.7	-0.9	+1.9
Greece (Athex Comp)	567.3	+2.8	-10.1	-7.7
Italy (FTSE/MIB)	16,791.6	+4.1	-21.6	-19.4
Netherlands (AEX)	452.0	+2.6	+2.3	+5.1
Spain (Madrid SE)	871.0	+4.9	-9.8	-7.3
Czech Republic (PX)	859.2	+0.2	-10.2	-7.7
Denmark (OMXCXB)	839.3	-3.7	-7.4	-4.6
Hungary (BUX)	27,502.2	+1.8	+15.0	+20.4
Norway (OSEAX)	679.9	+2.9	+4.8	+12.2
Poland (WIG)	48,401.0	+3.5	+4.2	+7.7
Russia (RTS, \$ terms)	946.6	+4.0	+10.5	+25.0
Sweden (OMXS30)	1,406.0	+4.0	-2.8	-3.2
Switzerland (SMI)	8,208.9	+2.5	-6.9	-4.6
Turkey (BIST)	77,955.6	+4.6	+8.7	+7.2
Australia (All Ord.)	5,628.2	+1.4	+5.3	+11.4
Hong Kong (Hang Seng)	22,492.4	+3.5	+2.6	+2.6
India (BSE)	27,774.9	+0.3	+6.3	+5.5
Indonesia (JSX)	5,423.9	+1.3	+18.1	+24.1
Malaysia (KLSE)	1,673.0	+1.5	-1.2	+6.3
Pakistan (KSE)	39,805.9	+0.5	+21.3	+21.5
Singapore (STI)	2,875.6	+1.7	-0.2	+5.6
South Korea (KOSPI)	2,044.6	+2.5	+4.2	+11.6
Taiwan (TWI)	9,200.4	+2.2	+10.3	+16.2
Thailand (SET)	1,548.1	+2.7	+20.2	+24.5
Argentina (MERV)	15,346.4	-0.5	+31.4	+15.3
Brazil (BVSP)	56,919.8	-0.3	+31.3	+65.6
Chile (IGPA)	20,429.9	+0.8	+12.6	+23.0
Colombia (IGBC)	9,725.5	+1.3	+13.8	+22.3
Mexico (IPC)	47,797.7	+2.0	+11.2	+4.6
Venezuela (IBC)	12,255.1	-1.0	-16.0	na
Egypt (Case 30)	8,291.5	+2.3	+18.3	+4.4
Israel (TA-100)	1,281.4	+1.1	-2.6	-0.6
Saudi Arabia (Tadawul)	6,354.6	+1.9	-8.1	-8.0
South Africa (JSE AS)	52,218.6	-0.6	+3.0	+20.0

Holiday blues

August is not the holiday season for everyone: last year 38% of Europeans felt they couldn't pay for a week away, according to Eurostat. In Greece the share of people who believed they couldn't afford a holiday rose by four percentage points between 2008 and 2015, during which time real wages fell by 14% and unemployment climbed by 17 points. In Sweden household disposable income per person grew by 9% over the same period, and the proportion of people who felt they couldn't stump up for a summer jaunt decreased. Income and employment rates cannot fully explain sentiment, though: housing costs, changes to welfare payments and the prevalence of temporary work also play a part.

Share of people who believe they cannot afford one week's annual holiday away from home, %



Source: Eurostat *2014

Other markets

	Index Aug 10th	% change on		
		one week	Dec 31st 2015	
			in local currency	in \$ terms
United States (S&P 500)	2,175.5	+0.5	+6.4	+6.4
United States (NAScomp)	5,204.6	+0.9	+3.9	+3.9
China (SSEA, \$ terms)	346.8	+1.1	-16.8	-18.7
Japan (Topix)	1,314.8	+3.4	-15.0	+0.9
Europe (FTSEurofirst 300)	1,354.1	+2.4	-5.8	-3.2
World, dev'd (MSCI)	1,727.5	+1.4	+3.9	+3.9
Emerging markets (MSCI)	903.0	+4.0	+13.7	+13.7
World, all (MSCI)	418.8	+1.7	+4.9	+4.9
World bonds (Citigroup)	970.1	+0.5	+11.5	+11.5
EMBI+ (JPMorgan)	808.5	+1.6	+14.8	+14.8
Hedge funds (HFRX)	1,184.0 [†]	+0.3	+0.8	+0.8
Volatility, US (VIX)	12.1	+12.9	+18.2 (levels)	
CDSs, Eur (iTRAXX) [†]	67.3	-5.1	-12.8	-10.4
CDSs, N Am (CDX) [†]	72.1	-3.8	-18.4	-18.4
Carbon trading (EU ETS) €	4.8	+2.1	-42.2	-40.6

Sources: Markit; Thomson Reuters. *Total return index. [†]Credit-default-swap spreads, basis points. [‡]Aug 8th.

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The Economist commodity-price index

	2005=100		% change on	
	Aug 2nd	Aug 9th*	one month	one year
Dollar Index				
All Items	136.0	138.0	-1.1	+1.6
Food	154.1	158.1	-2.9	-1.0
Industrials				
All	117.1	117.2	+1.5	+5.5
Nfa [†]	125.4	128.4	+4.5	+14.1
Metals	113.6	112.4	+0.1	+1.8
Sterling Index				
All items	185.8	193.2	+0.3	+21.8
Euro Index				
All items	150.6	154.5	+3.8	+1.0
Gold				
\$ per oz	1,367.4	1,340.1	-0.2	+20.8
West Texas Intermediate				
\$ per barrel	39.5	42.8	-8.6	-1.2

Sources: Bloomberg; CME Group; Cotlook; Darmann & Curl; FT; ICCO; ICO; ISO; Live Rice Index; LME; NZ Wool Services; Thomson Lloyd & Ewart; Thomson Reuters; Urner Barry; WSJ. *Provisional [†]Non-food agricultural.

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EPISODE TWO

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From child to man

Qusai Abtini, sit-com star of Aleppo, was killed on July 8th, aged 14

WHEN you saw Qusai Abtini on his TV sit-com, “Umm Abdou the Aleppan”, he appeared as the typical father-figure of a struggling Syrian household. Dressed in greasy blue overalls, he would trudge home from his workshop and throw a bag of shopping at his wife, Umm Abdou, ordering her to cook supper. More mellow afterwards, he would lounge in his white cap and *dishdasha* on the sofa, picking his teeth and patting his stomach while his wife served up his glass of coffee. As she carried on (for Umm Abdou, played by his 11-year-old schoolfriend Rasha, was wilful, beautiful, full of half-crazed ideas, and never stopped talking), he would keep a lordly silence, occasionally stroking an imaginary beard. Then, after an affectionate put-down, he would waddle off. Everything was exactly observed; and only the occasional too-broad bucktooth grin, or an unprofessional glance to camera, would betray the fact that patriarch Abu Abdou was a child.

He was one of around 100,000 children, roughly one-third of the population, in the eastern part of Aleppo, which for months and years has been fought over by the forces of Bashar al-Assad and the Syrian rebels. Thousands have died. With the arrival of the Russians on the government side, fighting has intensified to break the re-

bel hold on the east of the city. Qusai was one of those for whom school had become intermittent and street football too dangerous, with days spent inside instead, watching TV when the power was on, or reading by candlelight when it went off. A lot of time was spent queuing for bread, and too much time dreading the barrel bombs that would bounce down across the blue sky. In June his house was hit by rockets, and his father badly wounded.

This war zone was the background of his sit-com, made by opposition activists and aired on the rebel channel Halab Today TV. Qusai and the other children had been recruited from the Abdulrahman Ghaafiqi school, where he had started acting in the seventh grade. All the filming took place in Aleppo’s Old Town, through ancient archways and narrow streets with cast-iron grilles. But the child-actors also scurried past piles of rubble and burned-out cars, sometimes ending at half-bombed buildings that seemed ready to fall about their ears. Abu Abdou’s “home” seemed cosy enough, with rich carpets draped on an ornate sofa and, in one episode, even fresh apples and carrots for him to gorge on. But a closer look showed wires dangling, paint peeling, the potted palms thick with dust and bullet holes in the walls. The sound of shelling, and some-

times of close explosions that made everyone jump, rumbled behind their chatter.

Qusai’s job, and Rasha’s, was to entertain Aleppans despite it all. Umm Abdou was forever complaining about the lack of power, lack of water (which meant she had to do all the washing by hand in a plastic bowl), lack of a signal for her large mobile phone, the state of the city, the Assad regime and the way no one seemed to be filming the bloodshed properly, “so that other countries can’t see what’s happening to us”. Abu Abdou was lazier and more stoical. Umm Abdou wanted to start a women’s rebel army; he deterred her by pretending to see a mouse under the sofa, reminding “you woman”, as he loftily called her, how easily terrified she was. When he briefly joined the rebels himself, he was ambushed by Assad’s men and limped home with a bandaged head—all his wife’s fault, for gossiping about his sortie to the neighbours.

The face of defiance

Qusai already had half a foot in that world. He joined his first street protests when he was eight, sitting shouting on the shoulders of his elder brother Assad. In later demonstrations he strode fearless at the front, the fresh, cheeky face of Aleppo’s defiance. Assad joined the Free Syrian Army; Qusai signed up to a first-aider course at Jerusalem hospital. His acting career included video tours lamenting the state of ruined Aleppo, and school plays in which he played a rebel soldier in full fighting gear, drawing cheers from the parents for his speeches. In one theatre show he was “killed” by a sniper outside a bar and draped by his “mother” with a Syrian flag, the proper rites for a martyr.

By this year he was getting too old to play a child playing a man. The second series of the sit-com, made in June, starred a boy called Subhi in the part of Abu Abdou instead. Qusai was getting tall, and his schoolteacher noticed that his ambitions were growing with him, to be a serious actor and a star in his own right. Offstage, he went around in camouflage trousers and a hoodie that helped to disguise how young he was. Looking in the mirror, brushing his thick hair and practising a slighter, poutier smile, he was beginning to see the face of a celebrated fighter or a juvenile lead.

It was not to be, because as the battle worsened and Aleppo fell under siege his father decided to get him out. Subhi, his replacement, had already fled to Turkey with his family. By July, only one “humanitarian route” remained open out of the city. They took it, but a shell or a missile hit the car. His father survived; he did not.

He was mourned as the “little hero” who had made Aleppo laugh. His hopes had been for much bigger things, when he was really a man. ■

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