

The Economist

Can the Trump boom last?

Slaughterbots: rise of the military robot

A kinder, gentler Uzbekistan

Adieu to the French Elvis

DECEMBER 16TH-22ND 2017

Sharp power

The new shape of Chinese influence





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Politics



The Democrats' Doug Jones won an election for a Senate seat in **Alabama**, a stunning upset for the Republicans in a state that Donald Trump carried in last year's presidential race by almost 30 percentage points. Roy Moore, the Republican candidate, had a record of courting controversy long before he faced allegations of courting and harassing teenagers. Mr Trump tweeted that he always knew Mr Moore could not win (having campaigned for him).

The Republicans made progress in reconciling the House and Senate versions of the **tax bill**. One of the remaining sticking points is making sure the legislation does not contravene the Senate's Byrd rule, which does not allow "extraneous" spending to add to the deficit beyond a decade. The party wants to get the bill on Mr Trump's desk so that he can sign it before Christmas.

A pipebomb partially exploded in a walkway between the Times Square and Port Authority subway stations in **New York**, injuring three people and disrupting the city's morning rush hour. A 27-year-old Bangladeshi immigrant was charged with terrorist offences.

Transgender people will be allowed to enlist in America's armed forces from January 1st, after a judge refused the administration's request to delay the date while it figures out how to implement Mr Trump's order to ban them from serving. The Pentagon said it would comply with the judge's order.

A crisis in the making

Security forces in **Honduras** tried to clear the streets of barricades set up by supporters of presidential candidate Salvador Nasralla. More than two weeks after the election, no winner has been firmly established, though authorities say the incumbent, Juan Orlando Hernández, won the most votes. Mr Nasralla wants the election to be annulled on grounds of fraud.

The United States and **Venezuela** traded harsh words after President Nicolás Maduro said parties that boycotted this month's mayoral elections would be banned from future elections. A ruling-party bigwig said this reflected the government's belief in multi-party democracy.

Paying with their lives

In the **Democratic Republic of Congo** 14 UN peacekeepers were killed in an attack on their base by jihadists called the Allied Democratic Forces. The attack added an Islamist twist to a conflict that has long been about looting minerals.

Two courts ruled against Jacob Zuma, the president of **South Africa**, just days ahead of a conference of the ruling African National Congress to select his successor as party leader. One court ordered him to allow an independent judicial review into allegations of "state capture" in which he is accused of appointing cabinet ministers at the behest of people with whom his family has business interests. Another court ordered that he personally pay costs associated with his efforts to prevent an anti-corruption ombudsman from releasing a report in which these allegations were made.

Saudi Arabia lifted a 35-year-old ban on cinemas. The crown prince, Muhammad bin Salman, is trying to make the kingdom less puritanical. The first theatres could begin showing films early next year.

While visiting **Syria**, Vladimir Putin said he would start withdrawing troops from the

country. The Russian air force has been bombing rebels and jihadists in Syria for more than two years, propping up the blood-soaked regime of Bashar al-Assad.

The Organisation of Islamic Co-operation, comprising 57 Muslim countries, called on the world to recognise **East Jerusalem** as the capital of a Palestinian state. It said that Donald Trump's decision to recognise the city as Israel's capital disqualified America from playing a role in the Middle East peace process.

A political chasm

China closed the bridge linking the city of Dandong to **North Korea**, across which much of North Korea's trade with the outside world flows. The closure was ostensibly for repairs, but some observers thought China was surreptitiously pressing North Korea to curb its nuclear programme.



Partial results suggested a coalition of communist parties had won **Nepal's** first parliamentary election since 1999 in a landslide.

Sam Dastyari, an embattled **Australian** senator, resigned from parliament after a series of revelations concerning his dealings with a businessman thought to be close to the Chinese government.

The **Philippine** congress extended martial law in the southern island of Mindanao for a year, to allow the army greater freedom to pursue its campaign against Muslim extremists.

The **European Union** and **Japan** agreed to a free-trade deal, which will cover a com-

bined population of 600m people. Japan will slice tariffs on imports of European cheeses, meat and wine and the EU will do the same to duties on Japanese cars. Meanwhile, Japan and the EU joined America in forming an alliance to "eliminate... unfair market distorting and protectionist practices", which is aimed squarely at China.

The end of the beginning

Theresa May, Britain's prime minister, at last managed to get provisional approval for phase one of a **Brexit** deal from the European Union covering citizenship rights, the divorce bill and the Irish border. She received a rapturous reception from Conservative MPs when she returned to the Commons, but that soon changed when 11 Tory rebels joined the opposition to pass an amendment insisting that Parliament have a vote on the final deal. Many issues remain unresolved. On the all-important trading relationship, all options other than EU membership would leave Britain poorer.

Poland has a new prime minister, Mateusz Morawiecki, who will also retain his post as finance minister. Some hope he can defuse the tension between the EU and Poland over Poland's erosion of the rule of law, but that seems unlikely given that parliament this week approved bills that increase the government's powers over the judiciary.



More than a million people lined the streets of Paris for the funeral of **Johnny Hallyday**, the French answer to Elvis. "He was a lot more than a singer, he was life," Emmanuel Macron, the president, declared in his eulogy.

Business

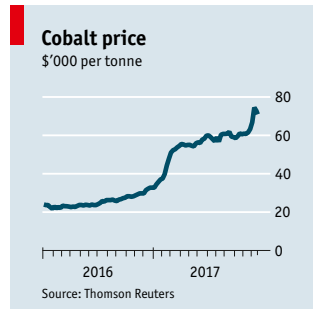
The **Federal Reserve** lifted the range for its benchmark interest rate by a quarter of a percentage point to between 1.25% and 1.5%, the third rise this year. Data showing that 228,000 **jobs** had been created in November, which was more than had been expected, underlined the robustness of the American economy, sealing the decision. The rate-setters' median forecast was for another three quarter-point rises in 2018. It was Janet Yellen's last meeting as chairman of the Fed. Jerome Powell takes over when Ms Yellen's term expires in February.

A red-faced letter day

Inflation in Britain rose to 3.1% for the 12 months to November; in the same month last year the figure was just 1.2%. Increases in the price of transport and food partly explained the jump, which tightens the squeeze on household budgets. Data on the **labour market** were mixed. They showed that the unemployment rate of 4.3% was the lowest since 1975; the number of people aged 16 to 64 not seeking work increased.

Turkey's economy grew by 11.1% in the third quarter compared with the same quarter last year, when the country was reeling from the aftermath of an attempted coup. The rebound has been driven by government stimulus, including an expansion of credit to small firms. GDP for the year is expected to be around 7%, which would make Turkey the best performer in the OECD.

A hub in Austria that imports **gas** for European countries was shut down after an explosion. Italy, the hub's biggest customer, declared a state of emergency. Meanwhile the Forties Pipeline, which provides Britain with 40% of its oil and gas from the North Sea, was turned off after a crack was found. The setbacks to supplies came as temperatures plunged below freezing. Gas prices soared.



Glencore is to double its production of **cobalt**, an important element in the batteries that are powering the electric-car revolution. The mining firm is increasing output from its Katanga mine in the Democratic Republic of Congo, to over 30,000 tonnes a year by 2019. That will leave it controlling about 40% of the world's cobalt supplies.

ExxonMobil said it would begin publishing estimates of the effects to its business from climate change and policies meant to fight it, a big win for the more than 60% of shareholders who passed a motion in May asking the company to disclose the risks it faces from global warming. Exxon had resisted the move for years.

HSBC fulfilled its commitments under an agreement struck with America's Department of Justice in 2012, under

which it promised to beef up its compliance with anti-money-laundering laws and sanctions. Prosecutors will drop charges that were deferred in a case relating to Mexican drug money laundered through the bank, which was fined \$1.9bn.

Disney agreed to buy the entertainment assets of Rupert Murdoch's **21st Century Fox** for \$66bn. Those include the film studio behind "Avatar" as well as TV businesses such as Sky in Britain. Mr Murdoch still retains control of his newspaper and publishing empire.

Shopping paradise

There was more consolidation in the shopping-mall industry, as **Unibail-Rodamco** offered to buy **Westfield** in a deal valued at \$24.7bn. Unibail, Europe's largest commercial-property company, counts the Forum des Halles in Paris among its assets. Westfield owns swanky shopping malls across America and two in London. Its brand is building urban malls as destinations for entertainment and food as well as shops.

Google announced that it would open a centre in Beijing dedicated to research into **artificial intelligence**. The

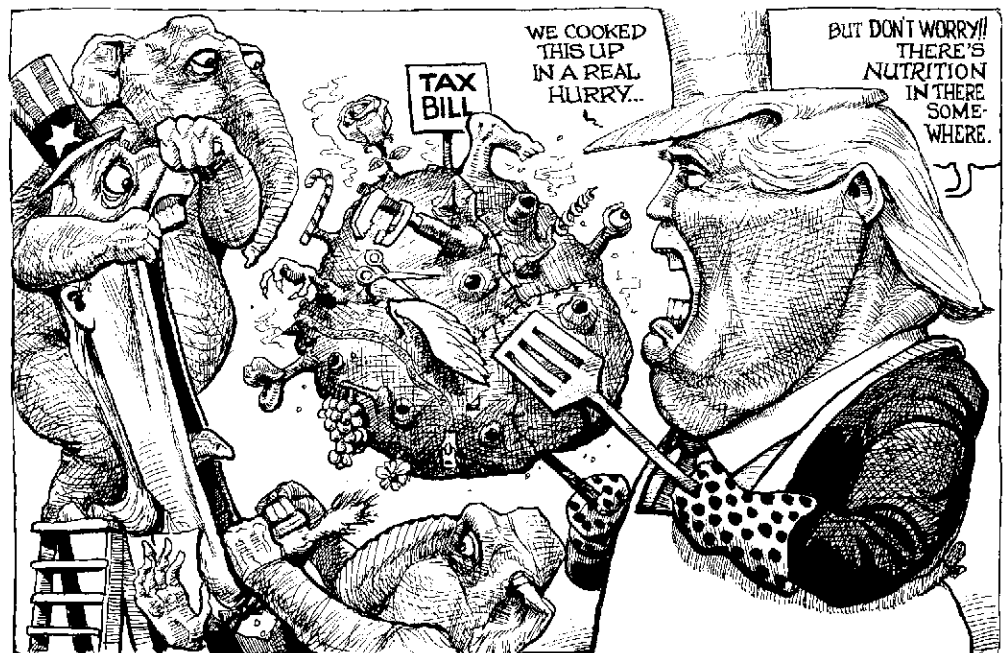
company pulled most of its business from China in 2010 rather than bow to the authorities on censorship and privacy issues. The government has made backing AI technologies a national priority to ensure China becomes a world leader in the field.

People flying **drones** for fun in America will have to register their toys with the Federal Aviation Administration after all. A judge had thrown out the requirement, finding that the FAA didn't have the authority to implement it. But the rule was inserted into a defence bill that was signed into law this week. Drones weighing as little as 250 grammes will have to be registered and display an ID.

Perfect harmony

Shazam, a British startup, was bought by **Apple**, reportedly for \$400m. Shazam developed one of the world's most popular apps, which recognises music played on any speaker and forwards the song title and artist to the user, and links the user to Apple Music and other streaming sites. It has spawned a TV show in America where contestants compete with Shazam to name that tune.

Other economic data and news can be found on pages 76-77



Sharp power

China is manipulating debate in Western democracies. What can they do about it?



WHEN a rising power challenges an incumbent one, war often follows. That prospect, known as the Thucydides trap after the Greek historian who first described it, looms over relations between China and the West, particularly

America. So, increasingly, does a more insidious confrontation. Even if China does not seek to conquer foreign lands, many people fear that it seeks to conquer foreign minds.

Australia was the first to raise a red flag about China's tactics. On December 5th allegations that China has been interfering in Australian politics, universities and publishing led the government to propose new laws to tackle "unprecedented and increasingly sophisticated" foreign efforts to influence lawmakers (see page 17). This week an Australian senator resigned over accusations that, as an opposition spokesman, he took money from China and argued its corner. Britain, Canada and New Zealand are also beginning to raise the alarm. On December 10th Germany accused China of trying to groom politicians and bureaucrats. And on December 13th Congress held hearings on China's growing influence.

This behaviour has a name—"sharp power", coined by the National Endowment for Democracy, a Washington-based think-tank. "Soft power" harnesses the allure of culture and values to add to a country's strength; sharp power helps authoritarian regimes coerce and manipulate opinion abroad.

The West needs to respond to China's behaviour, but it cannot simply throw up the barricades. Unlike the old Soviet Union, China is part of the world economy. Instead, in an era when statesmanship is in short supply, the West needs to find a statesmanlike middle ground. That starts with an understanding of sharp power and how it works.

Influencing the influencers

Like many countries, China has long tried to use visas, grants, investments and culture to pursue its interests. But its actions have recently grown more intimidating and encompassing. Its sharp power has a series of interlocking components: subversion, bullying and pressure, which combine to promote self-censorship. For China, the ultimate prize is pre-emptive kowtowing by those whom it has not approached, but who nonetheless fear losing funding, access or influence.

China has a history of spying on its diaspora, but the subversion has spread. In Australia and New Zealand Chinese money is alleged to have bought influence in politics, with party donations or payments to individual politicians. This week's complaint from German intelligence said that China was using the LinkedIn business network to ensnare politicians and government officials, by having people posing as recruiters and think-tankers and offering free trips.

Bullying has also taken on a new menace. Sometimes the message is blatant, as when China punished Norway economically for awarding a Nobel peace prize to a Chinese pro-democracy activist. More often, as when critics of China are

not included in speaker line-ups at conferences, or academics avoid study of topics that China deems sensitive, individual cases seem small and the role of officials is hard to prove. But the effect can be grave. Western professors have been pressed to recant. Foreign researchers may lose access to Chinese archives. Policymakers may find that China experts in their own countries are too ill-informed to help them.

Because China is so integrated into economic, political and cultural life, the West is vulnerable to such pressure. Western governments may value trade over scoring diplomatic points, as when Greece vetoed a European Union statement criticising China's record on human rights, shortly after a Chinese firm had invested in the port of Piraeus. The economy is so big that businesses often dance to China's tune without being told to. An Australian publisher suddenly pulled a book, citing fears of "Beijing's agents of influence".

What to do?

Facing complaints from Australia and Germany, China has called its critics irresponsible and paranoid—and there is indeed a danger of anti-Chinese hysteria. However, if China were being more truthful, it would point out that its desire for influence is what happens when countries become powerful.

China has a lot more at stake outside its borders today than it did. Some 10m Chinese have moved abroad since 1978. It worries that they will pick up democratic habits from foreigners and infect China itself. Separately, Chinese companies are investing in rich countries, including in resources, strategic infrastructure and farmland. China's navy can project power far from home. Its government frets that its poor image abroad will do it harm. And as the rising superpower, China has an appetite to shape the rules of global engagement—rules created largely by America and western Europe and routinely invoked by them to justify their own actions.

To ensure China's rise is peaceful, the West needs to make room for China's ambition. But that does not mean anything goes. Open societies ignore China's sharp power at their peril.

Part of their defence should be practical. Counter-intelligence, the law and an independent media are the best protection against subversion. All three need Chinese speakers who grasp the connection between politics and commerce in China. The Chinese Communist Party suppresses free expression, open debate and independent thought to cement its control. Merely shedding light on its sharp tactics—and shaming kowtowers—would go a long way towards blunting them.

Part should be principled. Unleashing a witch-hunt against Chinese people would be wrong; it would also make Western claims to stand for the rule of law sound hollow. Calls from American politicians for tit-for-tat "reciprocity", over visas for academics and NGO workers, say, would be equally self-defeating. Yet ignoring manipulation in the hope that China will be more friendly in the future would only invite the next jab. Instead the West needs to stand by its own principles, with countries acting together if possible, and separately if they must. The first step in avoiding the Thucydides trap is for the West to use its own values to blunt China's sharp power. ■

The American economy

Can the Trump boom last?

America's president is not the architect of the economy's strength. But in the short term things will go his way



THERE is often more fakery than truth in a tweet from President Donald Trump. But on one subject he is broadly right. America's economy is in good shape. Business confidence is high. Jobs are plentiful. Last

month non-farm companies added 228,000 workers to their payrolls. The unemployment rate is 4.1%, the lowest figure for more than a decade. The availability of jobs is drawing more of the working-age population into the labour force. Wages are growing in real terms with some of the biggest gains going to low-paid workers.

Mr Trump over-eggs things, of course. He claims each good jobs report and each new peak in the S&P 500 as his own achievement. In fact, he was lucky in his inheritance. The market has risen by 25% since his election, but is up by 195% since 2009. The unemployment rate fell from a peak of 10% to 4.7% under Barack Obama and then to 4.1% on Mr Trump's watch. His administration says that a mix of deregulation and corporate-tax cuts will spur sustained GDP growth of 3%, well above the 2% average of recent years. As the economy approaches full employment, an astonishing pickup in productivity would be needed to accomplish that.

But Trump-bashers overstate their case, too. They dismiss the optimism of consumers and bosses as sentiment, not substance. They warn that the stockmarket is dangerously overvalued and that America's expansion, which is in its 102nd month, must soon falter. Yet the economy is not in immediate danger. And the maturity of the business cycle cuts both ways (see page 61). It makes a nonsense of Mr Trump's claims to be the author of American economic success. But the economy is also capable of some welcome surprises.

Long in the tooth

America is not the only economy doing well. For about a year, a synchronised global expansion, taking in Europe, Asia and the Americas, has been under way. GDP growth in the euro zone, a region until recently synonymous with economic misery, is around 2.5%, despite slower population growth than America's. But America stands out because of where it is in the cycle. If it continues in 2018, this expansion will become the country's second-longest ever.

True, there are perils. As the business cycle matures, there is more chance that the economy will overheat, because of bottlenecks in the jobs market; or that the central bank overtightens in order to prevent things from running too hot. The longer the economy keeps growing, moreover, the more scope there is for financial imbalances, such as excess debt or frothy asset prices, to build up. Some warning signals are flashing. The gap between long-term and short-term interest rates has narrowed, as it tends to before recessions.

Yet the evidence for overheating is thin. Inflation has trended lower this year. Wage growth has picked up a little, thankfully, but shows few signs of accelerating. Pay would have to increase by quite a lot more before rising inflation is a

real worry. The proposed tax cuts are paid for by bigger budget deficits, a fiscal stimulus that is ill-timed given the business cycle. But the tax cuts favour companies (which in aggregate are generating bumper profits) or rich individuals (who save more of their income). That means the ripple effects from the stimulus are likely to be small.

The risk that the Federal Reserve tightens too much is aggravated by a change in the make-up of its rate-setting committee, which will take on a more hawkish tinge from next year. Indeed, nothing Mr Trump does is likely to have a bigger effect on the economy than his choices to fill Fed vacancies. But the tightening so far—the Fed raised rates by another quarter of a percentage point this week, to a range of 1.25-1.5%—has been appropriate. As for financial imbalances, pockets of excessive leverage exist. But the stockmarket has reached new highs as real interest rates have fallen: yields have dropped across all asset classes, from property in big cities to junk bonds. Asset prices may be high, but there is a logic to their ascent.

Still has bite

A mature cycle also has pluses. Investment is one. A global upswing in fixed capital spending is already in train, led by America but not confined to it. It is fuelled in part by a drop in uncertainty about the global economy. Businesses that have been reluctant to make long-term bets when one or other of the engines of the world economy has been sputtering are now more willing to put their money to work (see Schumpeter). Investment has also followed a surge in profits, reflecting stronger GDP growth, as it tends to. As workers become scarcer in America's tightening labour market, firms have a greater incentive to automate.

A second boon of a maturing cycle is higher productivity, which has risen at a snail's pace in all countries since the global financial crisis. More capital spending by businesses will help. And in America, in particular, firms are under pressure to reorganise their businesses to meet expanding demand, because low unemployment makes it harder to find additional workers. America is not about to return to pre-2005 rates of productivity growth, whatever Mr Trump tweets. But there are tentative signs that the rate is starting to pick up from its dismal, post-crisis slump.

All expansions eventually come to an end. Even if America does not inflict a recession on itself—through ill-judged trade policies, say—a global shock could do the job. When that time comes, America's policymakers will end up regretting how government revenues were squandered on a badly designed tax cut. The deficits that result will make it politically harder for Congress to agree on a fiscal stimulus to combat the next downturn. Interest rates will in all likelihood peak at much lower levels than in the past, limiting the scope for big cuts to fight a recession. In this, the worrywarts are entirely correct.

But the immediate outlook is sunny. The global upswing is still young, and has momentum. Mr Trump's policies have lifted the spirits of business leaders, who already had reason to be confident. Galling though it must be to the president's critics, America's economy is well placed for 2018. ■

Bitcoin

A bit on the side

Bitcoin is a speculative asset but not yet a systemic risk



FINANCIAL markets rarely miss opportunities to make money. That is as true of cryptocurrencies as anything else. Trading in bitcoin futures began on the Chicago Board Options Exchange this week; CME Group will launch its own futures on

December 18th (see page 65). That has given a further boost to the digital currency's price, which is up by 1,550% this year. Such phenomenal returns are drawing in waves of speculative money. But is there a fundamental case to invest in bitcoin?

The usual tools of finance are no guide. An equity is a claim on the assets and the profits of a firm; a bond entitles the investor to a series of interest payments and repayment on maturity. Bitcoin brings no cashflows to the owner; the only return will come via a rise in price. When there is no obvious way of valuing an asset, it is hard to say that one target price is less likely than another. Bitcoin could be worth \$10 or \$100,000.

Instead, investors must weigh the scenarios that enthusiasts posit: what if, say, every pension fund invested 1% of its portfolio in the cryptocurrency? One argument made by bitcoinnoisseurs is that it is a type of "digital gold". Stores of value are supposed to keep their value; bitcoin, by contrast, is extremely volatile. Its code ensures that no more than 21m coins can ever be created; that sets bitcoin apart from fiat money, which central banks can create at will. Yet being limited in supply is a necessary, but not sufficient, condition for having value; signed photographs of *Economist* journalists are rare but, sadly, of negligible worth. Nor is supply really limited. Plenty of other cryptocurrencies exist.

Might bitcoin replace ordinary currencies in everyday transactions? Not soon. Who wants to part with (or accept in exchange) a currency that can rise or fall by 20% in an hour? And

true currencies are used to denominate liabilities as well as assets; imagine the ruin faced by those who had taken out a bitcoin mortgage or business loan earlier this year.

Bitcoin might triumph if currencies like the dollar and the euro succumb to hyperinflation, but there is no sign of that. A more likely scenario is that the technology that underpins bitcoin—a distributed ledger called the blockchain—proves so useful that it becomes widely adopted. If so, bitcoin would become a vehicle for other services, and people would need to own some, or a fraction of one, to use them. But the original appeal of bitcoin was to the libertarian fringe and those who wanted to trade illegal commodities, like drugs, out of sight of the authorities. Bitcoin's anonymity and opacity do not much appeal to big banks (or to their regulators). They are developing their own blockchains.

Hysteria on all fronts

If the bitcoin boom looks like a mania, calls for it to be banned are also over the top. Regulators are right to watch "initial coin offerings"—attempts by companies to raise money by issuing digital tokens of their own. They are right, too, to warn retail investors about the dangers of a thinly traded market for an asset with no inherent value and scant recourse if things go wrong. But it is hard to see how the currency is a source of systemic risk; by one measure, the value of bitcoin is less than half that of Apple's market capitalisation. Real economic damage occurs when a plunge in asset prices is combined with the widespread use of money that has been borrowed, particularly by banks. These elements are not yet present.

For those who believe that cryptocurrencies could be the next big thing, buying bitcoin is like an option contract: it might just pay off. For everyone else, the wise course is to watch. Investors have had a lot of fun piling into bitcoin; the real test will come when they suddenly need to get out again. ■

Energy subsidies in America

Abuse of power

Regulators should reject Rick Perry's plan to subsidise coal-fired and nuclear plants



WINTER is coming to America. That simple statement of fact ought not to send shivers down policymakers' spines. But Rick Perry, the energy secretary, sees it as a call to arms. To defend Americans from blizzards, polar vortices and other treacherous weather which, he says, threatens the country's electricity grid, he proposes throwing a multi-billion-dollar lifeline to struggling coal-fired and nuclear plants if they can keep emergency fuel on standby for 90 days.

On December 8th the Federal Energy Regulatory Commis-

sion (FERC) was given a 30-day grace period to decide whether to support Mr Perry's plan. It should refuse to do so, or substantially amend it. His scheme is a confection of bad policy, faulty economics and thinly disguised patronage. But it also raises a genuinely difficult question: how to keep grids working smoothly in an era of cheap natural gas, which is hard for base-load power plants to compete with, and renewable energy, which is dependent on the vagaries of the wind and sun?

The FERC's decision, by contrast, ought to be an easy one. The rationale behind Mr Perry's proposal is weak; just 0.00007% of power cuts in 2012-16 were caused by problems with fuel. In emergencies the biggest risk to grids is not power generation at all, but the poles and wires along which electric- ▶▶

ity flows. The answer to that threat is microgrids—local systems which may mix renewables, batteries and diesel generation and can operate independently of the main grid.

The politics of the proposal are also suspect; it looks like a boondoggle to coal bosses who backed President Donald Trump's election campaign (see page 32). Worse, it threatens to reverse decades of energy deregulation. In his antipathy to congressional tax credits for clean energy, Mr Perry wants the FERC, an agency whose main job is to preserve the integrity of wholesale power markets, to distort them further by also subsidising coal and nuclear power.

Baseload of rubbish

In the process, he gives short shrift to a fuel that has been one of the greatest fruits of America's free market in recent decades—natural gas. Thanks to the shale revolution, last year gas eclipsed coal as the largest source of power generation in the country. Natural gas is not perfect. It emits carbon dioxide and, because it is hard to store, its price can soar during emergencies—witness supply disruptions in Europe this week and shivering schoolchildren in China (see page 27). But no fuel is fail-safe. Coal is far dirtier: small particles from coal-fired power

plants cause the early deaths of thousands of Americans each year. It can also freeze. Nuclear is clean but expensive, and can be knocked out by flooding. PJM, a north-eastern grid operator that could benefit from Mr Perry's largesse, says his plan is a bad idea. It thinks gas is reliable enough.

Mr Perry has nonetheless raised an important issue. Coal and nuclear struggle to compete with cheaper alternatives. Yet because wind and solar energy are intermittent, other sources of energy must pick up the slack. Rather than fighting subsidy with subsidy, regulators should promote market-friendly mechanisms to ensure stability of supply. Already, producers tender for contracts to supply the market. As flexibility becomes more important, they can bid to provide more ancillary services, such as natural-gas plants that ramp up and down quickly, demand-response pricing to reduce peak consumption, and battery storage. Auctions are also the best way to decide which baseload plants stay in service. PJM's capacity-performance payments reward producers for having power available when needed, and impose a big penalty if it is not.

America has never had so many options for making electricity reliable, cheap and green. Throwing subsidies at the dirtiest fuel of the lot is not one of them. ■

Film remakes

Don't take two

Sticking with winners is natural. But it can go awry



ORIGINALITY is hardly the hallmark of today's film industry. The biggest film of 2017 at the American box office is a remake of "Beauty and the Beast"; it will be surpassed by "The Last Jedi", which opens this week and is the squillionth episode of

the Star Wars saga. The ten highest-grossing films in Hollywood this year are all sequels or remakes.

As the film industry struggles to reverse a decline in box-office receipts (see page 56), it will keep returning to the comfort of the familiar. Franchises like Star Wars will steamroller on. Remakes are trickier. Well over 100 are thought to be in the works, from "Private Benjamin" to "Fantastic Voyage". Some will get a 2018 twist: the mark in "Dirty Rotten Scoundrels", a 1980s comedy about two con artists, is a tech billionaire. But not all. The following projects are rumoured to be under way in Hollywood. They suggest that remakes have their limits.

Taxi Driver. A disturbed man called Travis is forced to become an Uber driver after losing his job. As he becomes increasingly embittered about the world, his thoughts turn to violence. But passengers notice his surly attitude and when his driver ratings fall below 4.6, he is deactivated from Uber.

Sleepless in Seattle. Annie is drawn to the voice of Sam, a widower, as he talks movingly on a podcast about whether he can ever love another woman. On an impulse, she decides to write him a letter asking him to meet at the top of the Empire State Building in New York. By the time the letter arrives, Sam has downloaded Tinder and is much happier with his lot.

Footloose. Ren, a new arrival in a sleepy rural town, is appalled to find that dancing and rock music have both been

banned by the local preacher. But the reactionary cleric has not reckoned on the invention of wireless headphones, which enable Ren to put on the best darned silent disco in the Midwest.

Executive Decision. A group of terrorists hatch a plot to hijack an airliner. But the flight is overbooked. When they refuse to leave their carefully chosen seats, two of their number are beaten to a pulp by United flight attendants. The other terrorists stay on board but are too cowed to do anything.

Wall Street: Regulators Never Sleep. The hard-charging boss of a big American bank has plans to shovel credit at people who are barely able to scrape together a living. But when the Consumer Financial Protection Bureau comes calling, he quickly backs down. Chastened, he focuses instead on getting through the Federal Reserve's annual stress tests.

Psycho. Marion Crane is searching for somewhere to stay and spots a place called the Bates Motel. Before going in, Marion decides to look up the motel on TripAdvisor and sees that several guests have warned about the state of the showers. She opts for a Marriott Courtyard instead.

Taken. A retired CIA agent's daughter is kidnapped by sex traffickers while sightseeing in Europe. He uses the "Find My iPhone" app to track them down and then calls in the cops.

Brewster's Millions. Monty Brewster has to spend \$30m in 30 days, without accruing any assets, to inherit a fortune of \$300m. He puts all of it into bitcoin. With one day left, his stake has spiralled to over \$30bn. Fortunately, his bitcoin wallet is hacked just before the deadline and his inheritance is secured.

Some remakes can improve with an update: films about surveillance, from "Rear Window" to "Enemy of the State", would mean even more today. But the rest of Hollywood will need to come up with some original ideas to keep filmgoers flocking in. Play something new, Sam. ■



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Populist attributes

I don't agree that Britain is populism's "most surprising victim" (Bagehot, November 18th). Britain is a country with a carefully disguised, utter disdain for education, where a government minister can say that people "have had enough of experts"; where the editors of the ubiquitous gutter press (the original masterminds of the post-truth era) are invited onto respectable radio and television news programmes as if to imply they had genuinely informed views to contribute; where there is not one single serious public intellectual; where arguing the point is seen as impolite; and where an insistence on trying to be right is often met with patronising giggles. Britain's disrespect for education is inflicted on its students, who pay extortionate amounts for the self-professed gold-standard of a British university.

How, exactly, does any of that make Britain an unlikely populist country?

FRANK WEYNS
Paris

Political parties thrive on discord and short-term advantage. This frustrates voters, who are wearied by polar ideologies and adversarial politics. The remedy is not mob rule but a purging of parties from the democratic system. If MPs were freed from party allegiances, voted anonymously and appointed the executive, our Parliament would be steered by its judgment and conscience, applied independently. The resulting focus in elections on the quality of candidates instead of the colour they fly would bring blessed and universal relief.

ROD TIPPLE
Cambridge, Cambridgeshire

Nuclear fault

There is a misleading phrase in "The siren song of no deal", (December 2nd). Britain's nuclear-power stations may well be unable to import plutonium after Brexit, but they do not need to do so. Britain's plants are not fuelled by plu-

tonium, they are fuelled by enriched uranium and actually produce surplus plutonium.

MARJORIE SMITH
Cahors, France

Irrational beliefs

The fear of Muslims among Hindus in India (Banyan, December 2nd) is a sentiment widely shared in Myanmar among a population that is 88% Buddhist. Anxiety about Muslim conversions, violence, and demographic increases has prompted the widespread antagonism against Muslims, specifically the Rohingya. Legislation has been introduced to limit conversions of Buddhist women to Islam and to deter the expansion of the Muslim population. There are no Muslims (or Christians) above the rank of major in the Burmese army and the National League for Democracy has not nominated any Muslim for a seat in parliament.

DAVID STEINBERG
Professor emeritus of Asian studies
Georgetown University
Washington, DC

Gender reassignment

Regarding your piece on Britain's transgender wars ("Are women born or made?", December 2nd), a number of transsexuals, including myself, are opposed to self-identification. The present system requires real transformation to one's life in order to change one's legal gender under the Gender Recognition Act of 2004, and affords us the protected characteristic of "gender reassignment" (although surgery is not actually required) under the Equality Act of 2010. The corollary of the current proposals—based merely on self-identification—trivialises the real changes we make to our lives; others could then question the sincerity of our intent. Our protected characteristic, based upon material life changes, will be replaced by "gender identity", which amounts to nothing more than thoughts and feelings.

Furthermore, you quoted

statistics that half the transgender inmates in prison have been convicted of sexual offences. Recent figures show there were 125 transgender prisoners in the system in the year to March 2017, up by 55 from the previous year. But this is unlikely to include those who have changed their legal gender and so the number of transgender prisoners may be understated. Because no note is made of whether females convicted of sexual offences while in prison have legally changed their gender, there is a consequential risk of attributing male sexual offences to females and materially overstating the number of women sex offenders in the system.

MIRANDA YARDLEY
Leigh-on-Sea, Essex

Death and taxes

You are right to argue for the retention of some form of inheritance or estate tax ("The case for taxing death", November 25th). A sensible system taxes a judicious mix of income, spending and assets (property and estates). Some American states have run into financial difficulties by ignoring this rule.

The devil is in the detail. If reducing inequality is the aim, then it is right to tax beneficiaries rather than estates. Yet even that relatively simple principle needs to be fleshed out in crucial areas. What do you do about residential property, for instance, often the largest part of any estate and often treated very leniently for tax purposes?

ROBERT SATCHWELL
Haarby, Denmark

The presumption that inherited wealth must be taxed to prevent the creation of "a permanent, hereditary elite" that makes a society "unhealthy and unfair" is dubious. Charles Murray has famously (and for many, infamously) argued that disparities in wealth reflect heritable differences in intelligence. People with high IQs marry each other, passing their cognitive advantages to their offspring.

If intellect is itself an inheri-

tance, how can such a lucky boon be any more deserved than a trust fund? The inheritance of either wealth or intelligence (as well as other advantageous traits and advantage) is objectively unfair, but it is not inherently a transgression of moral or social mores. Such innocent good fortune should be tolerated, rather than discouraged.

JOHN BURKE
Vancouver

Inheritance taxes provide an incentive for wealthy people to set up charitable foundations. The Ford Foundation, for example, was established in part to reduce the taxes that would be due on Henry's death. The legal requirement that these foundations distribute part of their assets provides a vital flow of cash to non-profit organisations that distribute food to the poor, provide shelter for the homeless, scholarships to low-income students and other services that address poverty.

ROBERT RUTISHAUSER
Austin, Texas



You quoted Adam Smith: "a power to dispose of estates forever is manifestly absurd" ("Death of the death tax", November 25th). Was Smith referring to families, or the government? My observation over the past 40 years is that governments dispose of far more wealth than individuals or families.

PETER SCHMOLE
Los Angeles ■

Letters are welcome and should be addressed to the Editor at The Economist, The Adelphi Building, 1-11 John Adam Street, London WC2N 6HT
E-mail: letters@economist.com
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United Nations
Convention to Combat
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Managing Director of the Global Mechanism Bonn, Germany

Closing date for applications: 14 January 2018

Established in 1994, the United Nations Convention to Combat Desertification (UNCCD) is the sole legally binding international agreement linking environment and development to sustainable land management. The Global Mechanism (GM) is an organ of the UNCCD that is mandated to support country Parties to the Convention in the mobilization of resources for its implementation.

The Managing Director of the Global Mechanism of the UNCCD guides the implementation of the mandate of the GM, offering support to developing countries on how to scale up implementation of the Convention and achieve Land Degradation Neutrality. Specifically, the Managing Director:

1. Supports countries in taking bold actions to address land degradation and making them a priority in country policies, programs, and transformational projects;
2. Provides vision and direction to the Global Mechanism's work on finance;
3. Plans and strategically manages all aspects of human and financial resources for the GM and oversees the administrative tasks necessary for the functioning of the Office.

For details on the vacancy announcement, please go to:
<http://www2.unccd.int/about-us/vacancies>.



President & Chief Executive Officer

Africa Finance Corporation (AFC) is an African-led international finance institution established in 2007 to bridge Africa's infrastructure investment gap through the provision of debt and equity finance, project development, and technical and financial advisory services. AFC has invested over USD4.5 billion in infrastructure projects in 28 countries across Africa, with a focus on power, transport, telecommunications, heavy industries and natural resources (oil, gas and mining). AFC's shareholders include the Central Bank of Nigeria, African financial institutions and other industrial investors.

AFC is looking to recruit and appoint, for a period of 5 years (renewable), a new CEO. This individual who will be based in Lagos, Nigeria, will oversee and supervise all strategic and business aspects of the institution. This CEO will have responsibility for the day-to-day leadership, strategy, operational management, and growth of the AFC and will guide the organisation as it moves into the next phase of its development. This CEO will bring a compelling vision, a deep understanding of infrastructure development and will be a highly credible leader who has had visible responsibility roles throughout her/his career in Africa. The CEO must possess excellent diplomatic and leadership skills, a natural capacity for investment & fundraising and a proven capability to manage stakeholders. The CEO will work closely with the Board of Directors to develop and execute on strategies to achieve AFC's mission and goals. Only African candidates will be considered and women are strongly encouraged to apply.

Candidates should have the professional experience and standing to command the respect and trust of members of the business and governmental community and will have:

- At least 15 years relevant experience
- Experience in complex infrastructure and project financing
- Experience in originating, executing and managing equity, loan, mezzanine and guarantee transactions
- Experience in other aspects of managing a world class financial institution like asset and liability management, risk management and environmental and social management
- Experience in emerging market financing and investments in Africa
- Strong analytical and communication skills

The successful candidate will be offered an internationally competitive compensation package.

AFC has retained the services of Egon Zehnder to assist in this search. Applicants are requested to send a detailed CV, cover letter, and references to AFC@egonzehnder.com.

Applications that meet the criteria must arrive by email no later than midnight on December 31st 2017. Egon Zehnder will only enter into further correspondence with shortlisted applicants.



Professor of Business

Applications are invited for the position of the Mercers' School Memorial Professor of Business (formerly 'Commerce') from experts within the subject areas of Business, Economics, Economic History, Management or Finance. Gresham College has provided free public lectures, seminars and conferences in the City of London for over 400 years. The Gresham Professors must be able to communicate with a public audience who will not normally have specialist expertise in the subject area but will be informed people with a thirst for increased knowledge and understanding.

The appointment is part-time from 1 August 2018 and normally for three years. Gresham Professors must present six one-hour lectures each academic year. Attendance at Academic Board meetings four times per year and some social events is also expected. The lectures attract large numbers of people and are also recorded and available through the internet, so candidates should have an interest in reaching a global public audience. The post offers excellent opportunities to widen public exposure for the successful candidate, as well as the opportunity to expand his/her communication skills. The College pays an annual stipend of £7,000 (plus reasonable expenses) and encourages applications from all backgrounds and communities.

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

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

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

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



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Further details, as well as information regarding the requirements for the job and the application procedure are available at :
www.curia.europa.eu/jobs

Deadline for applications is 31 January 2018.

www.curia.europa.eu



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PSE DIRECTOR F/M

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Applications should be submitted by January 31, 2018

If this role matches your skills, experience and motivations please submit your CV with a covering letter at recruit-director@psemail.eu. Interviews with the short-listed candidates will be conducted in March-April 2018.

The position is available from January 1, 2019 for a 5-year renewable mandate. Earlier or later appointments may also be considered.

More information on the PSE website, *Job Opportunities* section.

www.parisschoolofeconomics.eu



INTERNATIONAL LEAD AND ZINC STUDY GROUP (ILZSG)

DIRECTOR OF MARKET RESEARCH AND STATISTICS

The International Lead and Zinc Study Group (ILZSG), an intergovernmental organisation based in Lisbon, Portugal, is seeking a Director of Market Research and Statistics to work for the Group.

The successful applicant will be required to maintain and enhance the Study Group's leading role in the collection, compilation, analysis, interpretation and reporting of global lead and zinc statistical data and related information. The Director of Market Research and Statistics plays a key role in improving the range of sources, coverage and accuracy of the Group's statistical data and in strengthening the range of contacts with industry.

Relevant metals experience of at least 10 years is required for this position, including dealing with statistical and economic issues related to metals, with involvement in lead and zinc desirable. Applicants will be required to demonstrate that they are able to prepare detailed reports of a high standard.

The successful applicant must be able to work flexibly in a small professional team, possess tertiary qualifications in an appropriate field, have well developed IT skills, be experienced at making presentations to various types of audiences, and be fluent in English.

The starting salary will depend on the applicant's qualifications and experience. Benefits include a staff Provident Fund, six weeks annual leave, and a relocation allowance where applicable.

Applications with Curriculum Vitae should be forwarded by email to sales@ilzsg.org no later than 17 January 2018.



At the sharp end

The Chinese government is using stealth to shape public opinion and mute criticism in other countries

OVER the past year Australia has been gripped by a tale of suspicion, subversion and spooks. In the latest chapter Sam Dastyari, a Labor Party politician of Iranian extraction, resigned from parliament on December 12th. A recording had emerged of him urging Australia to “respect” China’s territorial claims in the South China Sea, contradicting the policy of both the government and his own party, and confirming earlier allegations against him. He also tried to stop his party’s foreign-affairs spokesperson meeting a pro-democracy activist in Hong Kong. A year earlier he had been forced to leave his opposition post, after revelations that he had taken money from Huang Xiangmo, a Chinese businessman with apparent links to the Chinese Communist Party, at the same time as he supported China’s territorial claims.

Widespread evidence of Chinese meddling in politics and universities prompted an Australian spy chief to warn that his country was facing “an unprecedented scale” of foreign interference. The country’s prime minister, Malcolm Turnbull, is

clearly worried. Further revelations showed that two Chinese companies, one run by Mr Huang, had (legally) donated A\$6.7m (\$5m) over a decade to Australia’s two main political parties. On December 5th the government announced legislation banning political donations from non-citizens and requiring political lobbyists to reveal if they are working for foreigners.

Australia is not alone. In September the *Financial Times* reported that a New Zealand MP had taught at a Chinese spy college for years but had left that information off his CV when he later applied for citizenship. That prompted growing calls for more scrutiny of China’s influence over the Chinese diaspora in New Zealand. Canada’s intelligence services have long been worried about infiltration: in 2010 they warned that several provincial cabinet ministers and government employees were “agents of influence”.

China seems to have been busy in Europe, too. Germany’s spy agency this week accused it of using social media to contact 10,000 German citizens, including law-

makers and civil servants, in the hope of “gleaning information and recruiting sources”. There have been reports of Chinese agents trying to groom up-and-coming politicians from Britain, especially those with business links to the country. And on December 13th America started to learn of possible intervention, when the Congressional Executive Commission on China began hearings to look into Chinese attempts to win political sway.

Piercing, not soft

China’s approach could be called “sharp power”. It stops well short of the hard power, wielded through military force or economic muscle; but it is distinct from the soft attraction of culture and values, and more malign. Sharp power is a term coined by the National Endowment for Democracy (NED), a think-tank in Washington, D.C., funded mainly by Congress. It works by manipulation and pressure. Anne-Marie Brady of the University of Canterbury in New Zealand refers to China’s intrusions as a “new global battle” to “guide, buy or coerce political influence”.

The result is different from the cold war—less dangerous, but harder to deal with. Whereas the Soviet Union and the West were sworn enemies, China is a keenly courted trading partner that is investing huge sums beyond its borders (see chart 1 on next page). This naturally gives it influence, which it is using to shape debate ►►

abroad in areas where it wants to muzzle criticism, such as its political system, human-rights abuses and expansive territorial claims. It especially wants to stifle discussion of the Dalai Lama, Falun Gong, an outlawed spiritual movement, and the Tiananmen Square protests of 1989.

China is hardly alone in trying to shape how the world sees it. And its sharp power, though growing rapidly, is not its first attempt at the game. Over the years China has often tried to silence criticism of its politics by denying visas to critical journalists and academics and by giving a cold-shoulder to unsympathetic governments and firms. It has also attempted to monitor and control ethnic Chinese living outside the country, using Chinese-language media and China-backed community groups.

China has long used soft power, too. Roughly 500 government-funded and government-staffed Confucius Institutes operate in universities and 1,000 “Confucius classrooms” in schools around the world, mostly in rich countries. The institutes do a good job of teaching Chinese to foreigners but they would be unlikely to convince students in the West that China’s authoritarianism is admirable, even if they tried.

Sharp power wraps all that up in something altogether more sinister. It seeks to penetrate and subvert politics, media and academia, surreptitiously promoting a positive image of the country, and misrepresenting and distorting information to suppress dissent and debate. China’s sharp power has three striking characteristics—it is pervasive, it breeds self-censorship and it is hard to nail down proof that it is the work of the Chinese state.

Sharp elbows

Start with its pervasiveness. Most governments and intelligence agencies ignored China’s manipulations because they believed that state surveillance and intervention were mainly directed at the country’s diaspora. They were mistaken. The target now seems to include the wider society.

Confucius Institutes have turned sharper. Many cash-strapped universities have replaced their own language courses with curriculums led by the institutes. In some places the institutes have set up entirely new China-studies programmes. Though most do not actively push the party line, they often restrain debate about China by steering discussion away from sensitive subjects.

Occasionally China’s motives are more obvious. State-backed organisations such as the Chinese Students and Scholars Association (CSSA), often funded by Chinese embassies, have become more assertive. The CSSA offers assistance to the growing number of Chinese students on foreign campuses (see chart 2). It helps them settle in by, for example, organising social events. It also keeps an eye on students and some-



times reports to the authorities back home on people who take part in activities seen as hostile to the party (an Australian academic says that for this reason, many Chinese students ask to be put in tutorial groups without other Chinese).

Disquiet at China’s presumed interference is spreading around Western democracies. It is now growing in America, where Chinese influence to date has been mostly under the radar. Nevertheless, James Clapper, director of national intelligence until January 2017, warned after stepping down of a danger of complacency, saying that China’s growing influence threatened to undermine the “very fundamental underpinnings” of the political systems of America and Australia.

Some political leaders, academics and think-tanks are starting to push back. At the hearing on Capitol Hill this week, Senator Marco Rubio, co-chair of the Congressional Executive Commission on China, expressed frustration that policymakers and business leaders seem “asleep” while China mounts “insidious” attacks on academic independence and free expression, and co-opts American firms or universities dazzled by the size of the Chinese market.

The hearing discussed elaborate efforts to control Chinese students in America. Sophie Richardson of Human Rights Watch, an NGO, described Chinese police visiting the parents of a student who two days earlier had raised “touchy subjects” in a closed-door college seminar in America. Mr Rubio noted government attempts to curb enrolment by Chinese students at the University of California in San Diego, after a speech by the Dalai Lama there. Meanwhile, Chinese attempts to co-opt public officials and academics, even at state and local level, continue apace. Chinese operations are “an extraordinarily important geopolitical issue,” said Mr Rubio.

The immediate aim of Chinese sharp power is often self-censorship. Sometimes that takes pressure. In August the Chinese government asked a number of academic publishers to censor their databases of academic articles to exclude sensitive subjects such as the Tiananmen Square protests

and unrest among ethnic Uighurs in Xinjiang. Springer and Cambridge University Press complied but, following furious criticism in the West, CUP reinstated the items.

In November, at short notice, an Australian publisher withdrew a book, “Silent Invasion”, citing possible defamation suits from “Beijing’s agents of influence”. For those already anxious about rising Chinese intervention, the news appeared to confirm their worst fears—and substantiate the academic’s argument, summed up in the volume’s subtitle, “How China is turning Australia into a Puppet State”.

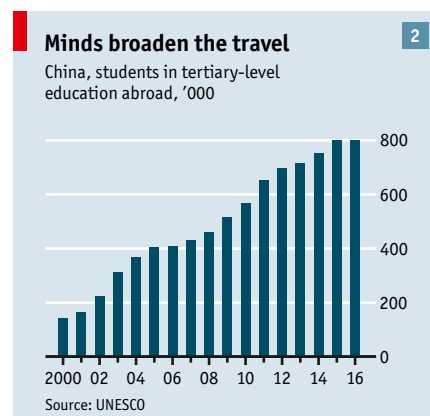
It is not only publishers that are feeling China’s coercive powers. A French film festival this summer decided not to screen a Chinese feature that painted a dreary and bleak image of contemporary China. It cited “official pressures” from the Chinese authorities as the reason.

Chinese ownership of firms abroad may also be a threat. Last year 16 members of America’s Congress requested a government review of foreign activity in certain strategic industries: they cited particular unease about Dalian Wanda, a Chinese property firm that owns a Hollywood studio as well as two cinema chains in America, because of “growing concerns about China’s efforts to censor topics and exert propaganda controls on American media”.

The long arm of the state

Other Chinese state-backed organisations have been trying to strengthen their partnerships with Western think-tanks and universities, partly in order to limit criticism of China and its policies. Many such institutions in the West thirst for cash; taking it from Chinese institutions (all of them in China have party links) has become an “almost normalised” practice, says Peter Mattis of Jamestown, a think-tank in Washington, DC. In Australia Mr Huang, the Chinese businessman who had donated money to political parties, also gave almost A\$2m to help launch the Australia-China Relations Institute, a think-tank in Sydney. He has since resigned from its board.

Even without direct pressure from Chinese officials, bosses on Western campus- ▶▶



es sometimes worry about future funding if scholars offend the Communist Party. Favours for donated money may be called in at a later stage. Academics report being asked not to invite particular speakers to conferences, for example.

Influence is obvious elsewhere, too. Chinese state media have expanded abroad, presenting a rosy, party-sanctioned view of China. In 2015 an investigation by Reuters, a news agency, revealed that a subsidiary of the Chinese government, China Radio International, was also covertly backing at least 33 radio stations in 14 countries, including Australia and America. These formed a global network broadcasting positive news about China—mostly in English and Chinese, but also in Italian, Thai and Turkish. Their government ties were hidden by front companies.

Usually, such investigations fail to pin down who is responsible—another feature of sharp power. On four occasions since May, students (mostly Chinese) rounded on Australian professors for hurting the feelings of the Chinese people (a popular Communist Party complaint). A lecturer was said to be picking on the Chinese when he wrote a notice in Chinese as well as English telling students not to cheat. A professor used a map that showed India's interpretation of a disputed Himalayan border with China. Another referred to Taiwan as an independent country. And a fourth used a Chinese saying in an exam that Chinese officials tell the truth only when “drunk or careless”.

Surprisingly, each incident was followed by a storm of social-media commentary and newspaper articles criticising the academics. In one case the Chinese consulate complained. Two of the universities kowtowed: one professor apologised on national television and another was suspended; a third lecturer wrote a lengthy apology. Perhaps, not untypically for Chinese students abroad, they were acting out of a genuine feeling of affronted patriotism. Whether prompted or not, such responses act to dissuade others from voicing criticism in the future.

Even the case of Mr Dastyari is hard to prove. It certainly looks bad. He was labelled an “agent of influence” by a former Australian intelligence officer. His support for China in the South China Sea reportedly followed a warning from Mr Huang that he would withdraw funding to Mr Dastyari's Labor Party because it backed Australian naval activity in the disputed waters. And, in a meeting after he stepped down from the opposition front-bench, Mr Dastyari seemed to want to protect Mr Huang from Australia's counter-intelligence service, by warning him that his phone might be tapped.

Yet no crime has been alleged. Mr Dastyari denies any wrongdoing and insists that nothing influenced his remarks on



China's activities in the South China Sea other than “the national interest”. The most commonly cited evidence that he was working for the Chinese is Mr Huang's links with the Communist Party. In fact, until November Mr Huang led the Australian branch of a party-affiliated organisation, the China Council for the Promotion of Peaceful National Reunification. That is fishy, but not proof of party ties or that he has received direction from the party.

A winning formula?

Will China's sharp power prove a success? One of its aims is to prevent foreign-based Chinese from undermining the party at home. Under Xi Jinping's autocratic leadership, the political environment has changed dramatically. For the first time since Mao Zedong's era, it has a highly visible strongman in charge. He has crushed rivals and sown fear among officials high and low with a ruthless campaign against corruption. Human rights are trampled upon. China wants to be sure that the programme of control at home is not vulnerable to the lack of control abroad.

Its other aim is harder to accomplish. As

a rising power, China naturally wants to make the world more congenial to its interests. Here, too, Mr Xi stands out from his predecessors. Gone is Deng Xiaoping's edict that China should keep a low profile in global affairs by “hiding brightness [and] nourishing obscurity”. Mr Xi has called on China to “turn up” its voice on the world stage. He has built military infrastructure on disputed artificial islands in the South China Sea, sent naval vessels on exercises with Russia as far afield as the Mediterranean and the Baltic Sea, and, in August, opened the country's first military base overseas, in Djibouti.

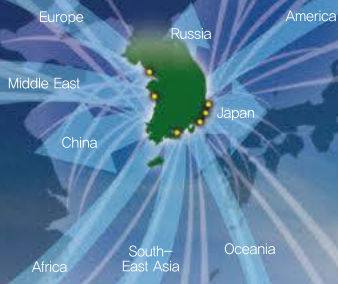
As a counterpart to this hard power, China seems to want to market itself as a responsible global citizen. But sharp power is a difficult weapon to yield. It mutes criticism and may make opinions more favourable (see chart 3). But, in Australia at least, the growing approval of China may now have turned the other way as a backlash starts to take hold. Posters were recently put up at several universities threatening Chinese citizens with deportation; “Kill Chinese” was daubed in a toilet at the University of Sydney, with a swastika underneath the graffiti; Chinese teenagers were beaten up at a bus stop in Canberra.

China's sharp power poses a conundrum to Western policymakers. One danger is that policies designed to smooth over relations whip up anti-Chinese hysteria instead. Suspicions of China could run wild. Barriers to academic, economic and cultural co-operation with China could go up. Rather than learning to live with each other, China and the West might drift into sullen miscomprehension. The other concern is that policymakers play down the risks. If so, the public and politicians in the West may underestimate the threat from China's rise. How do you strike the balance between self-protection and engagement? Just now, nobody is quite sure. ■



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Uzbekistan

From a low base

ALMATY

An Uzbek spring has sprung, but summer is still a long way off

STRANGE things have been happening over the past year in Uzbekistan, Central Asia's most populous country and one of the world's most repressive police states. Political prisoners have been walking free from jail. There has been less resort than usual to forced labour to bring in the cotton harvest. Journalists have started airing problems in the tightly censored media. Foreign human-rights advocates, who have long been banned from the country, were unexpectedly allowed to visit.

The author of these head-turning changes appears to be Shavkat Mirziyoyev, the president, who took power a year ago after the death of Islam Karimov, the strongman who had run Uzbekistan for the previous 25 years. Karimov had protesters shot and his opponents tortured—some were allegedly boiled alive. Mr Mirziyoyev had been Karimov's prime minister for 13 years, and few expected him to run the country very differently. But he claims his "profound reforms" will transform Uzbekistan into a "democratic state and a just society".

Mr Mirziyoyev has plenty of fans. Dilfuza Ismailova, a quavering chanteuse, has released a paean to him entitled "My Sultan". But others doubt his sincerity. The video accompanying a satirical song by Ulugbek Haydarov, a journalist hounded into exile under Karimov, shows the new president's nose growing, Pinocchio-style,

each time he makes a promise of reform.

At least some of the changes are real. Since Mr Mirziyoyev took office, 16 political prisoners and journalists who had languished behind bars for years have been released, and 16,000 people have been removed from security "blacklists" to which the paranoid regime had added them because it perceived them as a threat. In November, for the first time in 12 years, the Muslim call to prayer began ringing out from minarets around Uzbekistan, after the fiercely secular government, which has jailed thousands of people who are too pious for its liking, lifted a ban.

Cutting back on torture

Mr Mirziyoyev has pledged to do away with "exit visas", meaning permits to travel abroad, a relic from when Uzbekistan was part of the Soviet Union. He is also overhauling the repressive criminal-justice system, introducing protections against arbitrary detention and prohibiting the use of evidence obtained by torture, which is rife in Uzbekistan's jails. In September a delegation from Human Rights Watch, an international pressure group, was admitted for the first time since 2010. The previously sycophantic and subservient media have started airing discussions of petrol shortages, the rigging of university-entrance exams and other social and economic woes. The government has also in-

vited the BBC to open a local bureau.

Another abuse that appears to be on the way out is the use of forced labour. The government tightly controls cotton, Uzbekistan's third-biggest export (after gold and gas), setting quotas for farmers and fixing both the wages of pickers and the price at which the state buys the crop. It normally dragoons public-sector workers to harvest the bolls. But this autumn thousands of doctors, nurses and teachers were sent home from the fields. The government says greater mechanisation and higher wages for pickers will soon allow it to do without forced labour altogether.

Foreign policy is also being overhauled. Karimov had threatened war with Tajikistan and Kyrgyzstan if they went ahead with plans to build hydropower plants on rivers that flow into Uzbekistan, and sealed many crossings on the border with Kyrgyzstan after a democratic revolution there. Mr Mirziyoyev, in contrast, has been to Kyrgyzstan, the first visit by an Uzbek president since 2000, and signed an agreement on demarcating the border between the two countries. Soon afterwards, several sealed border crossings were reopened.

The economy, which has been held back by smothering regulation, protectionism and appropriation, is also changing. Mr Mirziyoyev has allowed the currency, the som, to float and has lifted most restrictions on changing money, although getting any foreign exchange from banks is still tricky. Firms are no longer obliged to sell some of their hard-currency earnings to the government at a discount. The currency reforms have all but rid Uzbekistan of its blackmarket, which was netting the vested interests controlling it multi-billion-dollar profits, at the expense of ordinary Uzbeks.

Critics point out, however, that all these changes merely scratch at the surface of ►►

Bureaucracy in Myanmar

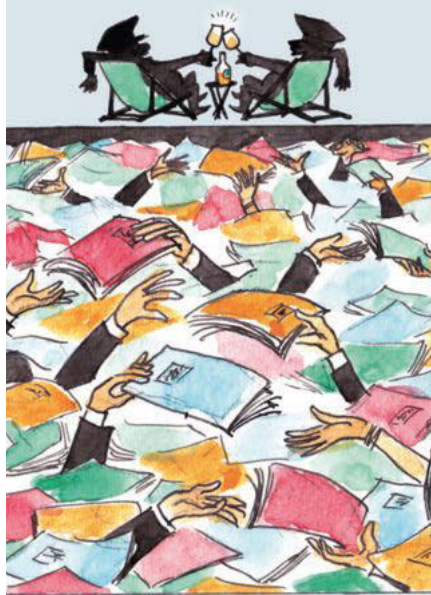
Overcommitted

YANGON

A surfeit of expert panels and working groups masks a deficit of authority

A GROUP of middle-aged men seated around a U-shaped table look absorbed. Soldiers in uniform alternate with civilians in *longyi*s—the Burmese version of a sarong. A couple of women sit at the back, scribbling notes. The committee created to organise celebrations for the 70th anniversary of Burmese independence is working at full steam: it has spent the day creating subcommittees (nine in total). Fireworks, dinner, the president's address: everything seems to be an excuse to set up a committee. One will organise the flag-hoisting ceremony; another will prepare the invitations for it. Who will ultimately send them has yet to be resolved—a job for another committee, no doubt.

Governments all over the world make use of committees to defer tricky decisions or make work for bureaucrats, but in Myanmar the craze is reaching new heights. The country's protracted peace process with ethnic militias has generated an impressive edifice of deliberation.



The troubles in Rakhine state, where an army-backed pogrom has prompted more than 600,000 members of the Rohingya minority to flee to Bangladesh, have also spawned a proliferation of committees. The president has just appointed a new advisory group on the matter. Aung San Suu Kyi, Myanmar's de facto leader, has recently created one of her own, too, to consider how to pump money into the region and repatriate refugees to smouldering villages. Both will be working alongside a third tasked with implementing the recommendations of two other worthy groupings. (One of these found no proof of any wrongdoing by the army, even though an earlier military panel had established that a soldier had stolen a motorbike.)

The Burmese love of gabfests is not new, but according to David Mathieson, an analyst based in Yangon, the trend is accelerating under Ms Suu Kyi. Last month a new ministry was created to help her cope with her workload—she sits on at least 16 committees. Concrete decisions rarely emerge from any of them. “It’s a daisy-paper-chain, a glum photo-op for the state media, and the performance of a hapless administration running while standing still,” Mr Mathieson laments.

The government's penchant for chin-stroking contemplation is a reflection of the difficulty it has in getting anything done. Before handing power to elected politicians, the army drafted a constitution granting itself total independence from civilian authority, control of three important ministries and a veto-wielding quarter of parliamentary seats. The bureaucracy is staffed almost entirely by people appointed during Myanmar's 50 years of military rule. Even the most high-powered committee would struggle to find a workaround for all that. But the government's determination to discuss problems to death creates the illusion of action—and even conveys concern.

► Uzbekistan's monumental injustice and mismanagement. Thousands of people remain in prison because of their political or religious beliefs. In September police detained Nurullo Otahonov, a prominent author, as he returned from exile to bask in the “Uzbek spring”. They also arrested Bobomurod Abdullayev, a journalist suspected of penning anti-government tracts under a pseudonym. Human Rights Watch has denounced a “revolving door” of re-

leases and arrests.

The best test of Mr Mirziyoyev's commitment to reform will be his willingness to institute genuine democracy—and there is little sign of that. He was elected last December with 89% of the vote; his closest opponent won less than 4%. He has made no pledges to allow a proper opposition to form, or to start holding free and fair elections. That makes all the other changes look a bit like window-dressing. ■

Elections in Nepal

The mountains of Mao

KATHMANDU

Two left-wing parties romp home in the first vote under a new constitution

AFTER centuries of absolute monarchy followed by decades of chaos, Nepal is taking to democracy in a big way. Since May its people have voted into office 753 newly created local councils, seven new provincial assemblies and a 275-member national parliament. Counting is not quite done for those last two votes, run simultaneously over the past three weeks, but the winner is clear. A coalition of two ostensibly communist parties, the Unified Marxist Leninists (UML) and the Maoist Centre, looks set to control not just the national government but six of seven provinces.

The alliance was tapped to win after the Maoists abruptly ditched their erstwhile coalition partner in the outgoing government, the Nepali Congress, to join the UML. But the scale of the avalanche comes as a shock to the centrist and liberal Congress, which over the turbulent past quarter-century has served as the default party of government. The leftists captured 70% of the 165 seats allocated on a first-past-the-post (FPTP) basis, compared with a meagre 14% for Congress. (Calculations are still under way for the remaining 110 seats, which will be allotted proportionally.)

Congress's drubbing might not be a bad thing. Nepal's communists differ more in brand than in ideology from other parties, and many Nepalese would welcome any outcome that shakes up the ruling class. Other notable losers include the royalists campaigning for a Hindu state, who took just one FPTP seat, and a splinter Maoist group which let off bombs to disrupt the elections. A clutch of new parties marketed as alternatives to the old corrupt ones failed miserably.

The campaign itself was a dull affair that thankfully lasted a few short winter months. The communists succeeded largely due to fatigue with Congress, better organisation and a campaign that sold promises of development in the form of shiny new infrastructure. None of the main parties put such chronic problems as discrimination against Dalits, women and other marginalised groups on their agendas. Neither the plight of public schools and hospitals nor the lack of good jobs, which drives Nepalese to seek work abroad, featured in their rallies. Millions of migrant workers in India, the Middle East and elsewhere, whose remittances are equivalent to 30% of GDP, were not allowed to vote despite a Supreme Court ruling that theoretically gave them that right. ►►

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Still, the results signal a likely return to relative political stability after a decade of war and another decade of disruptive political jockeying. The constitution of 2015 does not allow a no-confidence motion for two years, and the new government looks likely to survive a full five-year term. The communist coalition plans to unite into a single party as soon as the right deals are in place. These include finding appropriate posts for the five former prime ministers in the coalition who won seats, and deciding the composition of the six leftist provincial governments.

The elections also reveal the divide created by the new constitution. The only province that did not turn left, number two (provincial names and capitals have yet to be decided), was easily won by parties representing the Madhesis, lowland people seeking to change a political system said to favour the country's highlands. Their promise to fight hard to amend the constitution, as well as further demands for greater local rights from other parts of the multilingual, multi-ethnic and multi-religious country, could augur trouble, unless the communists shed their victors' hubris to accommodate the Madhesis and other marginalised people.

Internationally, the communist government will have to refine its diplomatic skills to keep both its giant neighbours happy. Ties with India are stronger thanks to an open border, which has fostered trade and allowed millions of Nepalese labourers to find work there. But the new government will be the friendliest to China since that of Gyanendra Shah, Nepal's last king, who courted the Chinese authorities eagerly in 2005 in an unsuccessful effort to prolong his dictatorship.

The person most likely to return as

prime minister, K.P. Oli, is keen to see greater engagement with China. He was prime minister in 2015 when India appeared to side with Madhesi agitators who were attempting to blockade Kathmandu, the capital. In response Mr Oli signed trade and transit agreements with China. In the election he projected himself as a man able to stand up to a domineering India.

For years Nepalis have envied India's and China's rapid economic growth and tried to woo investment from them. Political turbulence has stymied many projects.

One of the last acts of the outgoing government was to scrap a big Chinese-backed hydroelectric scheme. The new government is likely to present China with a wish-list of investments, including airports, highways, dams and a high-altitude railway to connect Kathmandu to Tibet. This passage through the Himalayas would make Nepal less dependent on India. But Nepalese democrats worry that Chinese politics will steam in along with the money, encouraging Nepal's rulers to mimic China's approach to dissent. ■

The Kuril Islands

Still cranky after all these years

KURILSK AND NEMURO

Japan's plan to resolve a 70-year-old dispute with Russia is fatally flawed

RUSSIAN sounds familiar to Yoi Hasegawa, an 85-year-old resident of Nemuro, a small port on the north-eastern tip of Japan. She still remembers a few words from when she was 13, and lived on the nearby island of Etorofu. Japan had just surrendered to the Allies, ending the second world war, but Stalin, who had only declared war on Japan seven days before its capitulation, was eager to seize territory Roosevelt and Churchill had promised to the Soviet Union. He sent troops to occupy the southern Kuril Islands, which Russia had acknowledged as Japanese territory in 1855. Two years later, after Ms Hasegawa had picked up a little Russian, he deported the Kurils' Japanese inhabitants. The resulting territorial dispute mars Russo-Japanese relations to this day.

Like his predecessors, Japan's prime minister, Shinzo Abe, would dearly like to reclaim the Northern Territories, as Japan calls the southern Kurils (see map). But Vladimir Putin, Russia's president, is better known for taking territory than giving it back. The Japanese government hopes that engagement with the new Russian inhabitants of the islands and investment by Japanese firms in what is, after all, a poor and isolated corner of Russia, may gradually soften local hostility to anything that seems like a territorial concession. Mr Abe has a personal stake in this charm offensive: his father and grandfather, as foreign minister and prime minister respectively, tried to secure the Kurils' return. Some sort of deal ("shared sovereignty" is a phrase bandied about a lot in Tokyo) would fulfil a cherished goal and remove a huge impediment to closer ties.

Ms Hasegawa has been a beneficiary of Mr Abe's diplomatic overtures—but it has been a long time coming. Soviet troops arrived at her house in late August 1945.



"They did not take off their shoes," she says, "and they had automatic rifles." She was afraid about what they might do to her 17-year-old sister. "My father had samurai blood in him and told them that they would have to kill both of them," she recalls. But in the end they did nothing worse than steal some of the locals' valuables.

For the next year the Japanese residents and the Russian invaders lived next to each other. Old Japanese ladies helped to deliver the babies of the Russian women who had come to join their husbands in the local garrison. The Russians supplied the Japanese with clothes and some food. Ms Hasegawa would walk three kilometres to a place where Russians lived to exchange potatoes for sugar.

Then, in 1947, ships arrived and took all the Japanese away. They were allowed to pack one bag and given 24 hours to get on board. Many families buried their belongings in the garden, expecting to be back soon to retrieve them. The boats took them to Sakhalin, a nearby island once divided between Russia and Japan but by then wholly in the hands of the Soviet army.



A big day for Marx and Lenin

▶ After a few months in barracks there, they were sent to Hokkaido, Japan's northernmost island.

In June a boat took Ms Hasegawa back to the island she left 70 years ago, now renamed Iturup. The village where she was born has long been abandoned. Only bears live there now, the locals say. Most Japanese buildings were burnt or demolished in the 1970s. Streets and villages have been renamed. A few gravestones are the only obvious sign of the long Japanese presence on the island.

The main town, Shana, has become Kurilsk. It is a settlement of just 1,500 people who mostly live in Soviet-era apartment blocks. It was in one of those blocks on the unpaved Lenin Komsomol street that Ms Hasegawa met Tatiana Vasilieva, who is 63. Like Ms Hasegawa, Ms Vasilieva was born on Iturup. Her father was one of the Soviet soldiers who came to "liberate it" in 1945. Her family lived in the village where Ms Hasegawa once sold potatoes. Ms Vasilieva believes the Kurils must remain Russian, but she feels sorry for the former Japanese residents. "Deportation was a tragedy for them, as it would have been for me," she says.

At the end of her encounter with Ms Hasegawa, Ms Vasilieva hugged the old lady for a long time. "We have different nationalities, but the same homeland," she told her. "I was deeply moved," Ms Hasegawa recalled. She has little interest in geopolitics: "I just want to go there any time I feel like it, stay there for a week or so, and become friends with the people who live there now."

The Japanese government has a different view of Russia from its Western allies. They regard it as a disruptive force, to be fended off, whereas Japan sees a potential counterweight to China's growing power. That is an especially desirable attribute at a

time when America's commitment to the region seems less certain.

But Russia has sold China advanced offensive weapons, including su-35 jets. Mr Putin seems to get on well with Xi Jinping, his Chinese counterpart. "We need to get Russia to our side, or at least to drive a wedge between Russia and China," a senior Japanese diplomat says.

The Kurils are a secondary issue, but not to Mr Abe. "It is his personal project. The majority of the Japanese people, particularly the young ones, don't care about it," says a Japanese analyst.

Mr Abe has met Mr Putin 20 times, with the Northern Territories always on the agenda. During a summit a year ago he handed Mr Putin a letter from former residents of the Kurils. "We don't have time... We want to return to the islands... We want to go and return freely," they wrote. According to Mr Abe, Mr Putin read the letter and agreed right away to ease travel to the islands for former residents and to initiate various joint development schemes. In return for being allowed to bring elderly Japanese to visit the graves of their relatives, Japan regularly ferries Russians living in the Kurils to Hokkaido, for a holiday at Japanese taxpayers' expense.

One ship a week

The Kurils, home to just 20,000 people, are extremely isolated. There is one ferry a week to Sakhalin, the main link to the outside world. The few flights in and out are prohibitively expensive. Internet access is scarce and mobile reception sporadic. There are only 13km of paved roads. To get around the islands, locals tend to drive along the beach—something that can be done only at low tide. To induce people to live there, Russian law requires employers to pay workers in the Kurils double what they would earn on the mainland.

The Russian government has declared Iturup a special economic zone, with tax breaks for investment. The governor of the region, Oleg Kozhemiaka, says the Kurils are open to Japanese investors. He has lobbied successfully for the easing on Iturup of border-zone regulations that make it especially hard for foreigners to do business.

But the less onerous rules apply only in Kurilsk and a few other spots, not including the island's port. That makes them next to useless. When a group of Japanese businessmen visited in June, they were not allowed to deviate from a pre-agreed itinerary. It does not help that fishing, the port and most other businesses on the islands are in the hands of a single oligarch, who is presumably not eager to see competition.

Mr Kozhemiaka says the government is planning to invest in tourism, to capitalise on the islands' stunning scenery. But it is not just the lack of roads, accommodation or communications that puts Japanese tourists off. As a group of Japanese journalists politely told officials in Sakhalin, "Nobody smiles here."

Japan's overtures do not seem to have engendered much goodwill. Natalia Beskrovnaia, a managing editor of *Red Lighthouse*, a local newspaper, who has been on a free trip to Japan, says, "I am against any Japanese presence in the Kuril Islands. We should not let them in. I am against this visa-free exchange. They want to grab our resources." The realisation of Japan's economic superiority makes young people fearful of Japanese investment. "If they come here, we would be their servants and I don't want that," says Ms Vasilieva's daughter. Elena Kairova, the curator of a local museum, echoes her misgivings: "Why do we need the Japanese here? So that they can catch our fish? Let them catch their own fish. They are very cunning. They want to open their restaurant here. Why do we need that? We can eat our Russian food," she says.

The siege mentality is exploited and fanned by the authorities. Last month the army said it would install anti-ship missiles in the Kurils. Focusing on imagined external threats diverts attention from the local elites, who show scant regard for the well-being of the islanders.

A recent lecture for schoolchildren in Kurilsk on the history of Russo-Japanese relations ended with the second world war, as if time had stopped in 1945. The emotional lecturer swelled with anger as she displayed pictures of Japanese soldiers skewering babies during the invasion of China and fought back tears as she described the heroism of Soviet soldiers during their brief offensive against the Japanese. Japan's quest to regain the Kurils, she said, was a hopeless fantasy: "I vote for Putin every year, and the only thing that will stop me doing so would be if he gave up the islands." ■



How the Russians remember 1945

Banyan | Peak patriotism

To understand East Asian nationalism, climb a mountain



SHIKOKU, the smallest of Japan's four main islands, is famous for its Buddhist pilgrimage route: a two-month circumambulation if all 88 temples are visited. The route takes you through cities and along a rugged coast. But it lingers mainly in the mountains that run inland along forested ridges, like a scene from a Chinese scroll painting.

Many of Japan's Buddhist temples are built high up. The sensation as you approach is of climbing almost vertically into the sky. It is as if the point is to arrive out of puff, with your senses awry. In the still of the wooded dell, before you swing the huge log against the bell to announce yourself to the gods, the not-unpleasant sensation is of feeling small, in the lap of greater powers.

For Buddhists, the mythical mountain kingdom of Shambhala, described in the earliest Sanskrit texts, has the allure of a pure, visionary land of bliss. For Mongolian new year in February, a low table in every herder's *ger* (yurt) strains under mounds of food. Next to the prized, fatty sheep's tail, a pyramid of biscuits and sweets represents the mountains of Shambhala. In Shikoku, pilgrims follow a route once taken by Kukai, the eighth-century monk who brought esoteric Buddhist teachings from China and moulded them to a Japanese form. His sect's headquarters is still high up on Japan's main island, at Mount Koya.

Importing mountain- veneration to Japan was, admittedly, preaching to the converted. Japan's indigenous religion is Shinto, an animist faith that sees the divine in everything—"8m gods" inhabiting nature. Ancient Shinto shrines also sit high in montane forests—indeed, often sharing a site with a Buddhist temple. Cultural critics who consider the Japanese unmoored in a materialist world look to the mountains for a roborant spiritual cure.

In the tumultuous decades following Japan's Meiji Restoration of 1868, mountains took on an ominous, hulking purpose at a time when the country threw off its isolation and launched into a frenzy of industrialisation and militarisation. Notions that Shambhala existed somewhere in Asia were seized upon by the chauvinist ideologues advocating a new pan-Asian new order, led by Japan. At home snow-capped Mount Fuji, the perfect embodiment of a volcano, was shaped into a symbol of racial superiority. This nasty idea collapsed with Japan's defeat in 1945, and Fuji-san went back to adorning paintings and postcards.

Yet mountain mysticism lives on, on the Korean peninsula. The rugged peaks among which Koreans live have long been central to their sense of their homeland: "Over the mountains are mountains," runs a Korean saying.

When Japan annexed Korea in the early 20th century, the colonial authorities understood the sacred significance of mountains. As Alexis Dudden of the University of Connecticut explains, the peaks overlooking the city of Seoul determined the layout of Gyeongbok Palace, home to the ruling dynasty. Its throne room was aligned with the mountains to channel the spiritual power of the landscape through the Korean emperor's veins. In 1911, in an early act of colonial violence, the Japanese governor ordered the construction of a massive, neoclassical building to block the flow and serve as colonial headquarters. In 1945 the naive American liberators understood none of this, lowering the Japanese flag on the building and raising the Stars and Stripes. The offending structure was at last razed in 1996.

Korea's Japanese rulers had maintained that Koreans were blood relatives of the Japanese, younger brothers on a winning racial team. Many Koreans lapped this up. When the North Korean state was founded after the war, it lacked founding myths. So it recruited Koreans who had served as propagandists under the Japanese. These, as B.R. Myers of Dongseo University in Busan puts it, simply kicked the Japanese off the winning team.

Imperial Japanese symbols came to Kim Il Sung's aid. First he, and more recently his grandson, Kim Jong Un, the North's current dictator, were depicted astride a white charger, just like Emperor Hirohito. As for Mount Fuji, that was swapped out for Mount Paektu, another volcano, with a pristine crater lake, that straddles the border of North Korea and China. It carried little significance before. Now Paektu is presented as sacred racial symbol: not only the birthplace of Dangun, the mythical founder of Korea, but also of Mr Kim's late father, Kim Jong Il. (In fact, he was born in grimy Khabarovsk in the Soviet Union.)

By chance, the Manchus who founded China's last dynasty, the Qing, also chose to retrofit their own founding myth onto Mount Paektu (Changbaishan in Chinese). That matters because Chinese nationalists view the Qing empire's maximum extent as the border that modern China should seek to reimpose. Koreans fear an assertive China might in future make expansive claims to Korean territory. South Korea, too, has adopted the adoration of Mount Paektu, pictures of which hang in government offices. State-sponsored mountain-worship with Japanese imperialist roots: it ought to make South Korean democrats blush.

Raising the roof

Yet Korea's future is more likely to be marked by a cursed mountain than a mystical one. Mount Mantap in the North, not far from the Chinese border, is the regime's nuclear test site. It has detonated six nuclear devices there since 2006, placed deep in the mountain via tunnels quarried by prisoners from the country's biggest concentration camp, nearby. This has taken a toll on Mantap. During the latest explosion, of what was probably a hydrogen bomb in September, satellite pictures showed the contours of the mountain visibly shifting.

Mantap suffers from "tired mountain syndrome": it is at risk of caving in. Chinese scientists are especially concerned. Another test might blow the top off, leading to devastating leakage of radioactive material. Over the mountains are mountains, some more daunting than others. ■



Pollution

Awry in the sky

Also in this section

28 Protests over wage arrears

BEIJING

China has won battles against its choking air, but not the war

AT NANYAWO elementary school in Hebei province, near Beijing, the temperature in early December fell below freezing, both outside and in. The teachers took to instructing the six-year-old children in the playground. At least outside it was sunny. The classrooms were unusable because the local government had dismantled the coal-fired boilers for environmental reasons, but not yet installed a replacement heating system. There have been several such incidents this winter in northern China. In Linfen, in neighbouring Shanxi province, villagers say their coal-fired heaters have been taken away but the pipes linking them to the gas system have not arrived. A new slogan recently appeared on walls in the town: “If you burn coal, we’ll see you in the detention centre.”

The authorities in northern China have imposed emergency restrictions until mid-March to control air pollution, which spikes during the winter. Twenty-six cities plus Beijing and Tianjin (which count as provinces) had promised to replace heating systems that run on coal with ones using electricity or gas for 3m households this year. But they failed to complete the work on time, forcing a rare U-turn: they have allowed a certain amount of coal to be

burned in places without any alternative. The government has also limited the output of iron, steel and aluminium smelters, mothballed many big construction projects—leaving cranes atop unfinished skyscrapers motionless against cornflower skies—and, in Beijing and its surroundings, created a new Environmental Protection Agency, with tough enforcement powers.

All countries use a mixture of carrots and sticks in their environmental policies. China does, too (next year it is planning to open the world’s biggest carbon market, for instance). But its sticks—that is, outright bans on polluting activities—are unusually stout. That makes it a good place to judge the impact of command-and-control measures to rein in pollution, as opposed to subsidies or taxes. So far the lesson seems to be that bans work, but only when conditions are right.

Fumes, health problems, action

Beijing’s emergency measures come on top of an even more sweeping set of prohibitions called the national action plan on air pollution, introduced in 2013. (China loves national action plans; it has lots.) This imposed a nationwide cap on coal use, as well as provincial caps requiring

Beijing, for instance, to reduce coal consumption by 50% over five years and Tianjin to cut it by 19%. The plan banned new coal-burning facilities (though plants already in the works were allowed) and sped up the use of filters and scrubbers.

The plan seems to be working. The concentration of pollutants with a diameter of 2.5 microns or less (PM 2.5—the most deadly kind) fell from over 100 micrograms per cubic metre in Beijing in 2012-13, at the time of the city’s notorious “airpocalypse”, to around 75 in 2016. That is comparable to London’s clean-up after the “pea soup” fogs of the 1950s, but quicker. It translated, according to Greenpeace, an environmental pressure group, into 160,000 avoided premature deaths in 2016.

But in 2017 the improvement in PM 2.5 concentrations stopped and the level flattened out. This winter has seen welcome episodes of clear skies but also more days than in 2016 of the worst, choking smog, when daily PM 2.5 levels rise above 300. The annual average level remains about 25% above the target set in the national action plan, and well above the levels that pertain in big Western cities—hence the emergency measures.

Why did bans work at first, then stum- ▶▶

► ble? There are several reasons. First, the measures were more effective when economic change was making China greener anyway, as it was in 2013-16, when the composition of GDP shifted away from heavy industry and infrastructure towards services. But in 2016 the government grew alarmed about an economic slowdown and allowed infrastructure spending to rise again (infrastructure is pollution-intensive because of the amount of cement and steel used in construction). When this happened, the command-and-control measures were unable to do more than stop emissions rising.

Second, such measures only change polluters' behaviour as long as they remain permanently in force. Many Chinese steel mills and coalmines (especially small privately-owned ones) ramped up output in the months before the curbs went into effect and did the same again when controls were eased. The stop-start character of the bans made them less effective.

Third, banning things probably works better in China than it would in most places. Many of the biggest polluters are state-owned enterprises, so the state can more easily control them. An authoritarian government is also able to issue draconian orders—sometimes far too drastic, as the shivering children of Hebei can testify. The efforts of Xi Jinping, the president, to make local leaders obey the dictates of the central government seem to have turned the former passive resistance at the lower levels of the bureaucracy into overenthusiastic compliance.

China has two other advantages. More than half its pollution comes from coal-fired power stations, which means that by concentrating on coal, the government can do more than in India, say, where the burning of stubble after harvest and other sorts of pollution are big problems. Unlike most developing countries, China has invested a lot in monitoring and measuring, too.

Last, command-and-control suits a country that does not need to justify the costs. The Clean Air Alliance of China estimated in 2015 that the investment cost of the national action plan in Beijing, Tianjin and Hebei provinces alone would be 250bn yuan (\$38bn). That does not include the opportunity cost of suspending construction projects for months on end or shutting down some smelters.

But big environmental controls of every kind are expensive. Germany's *Energie-wende*, for example, which uses subsidies to encourage greener fuels, cost €60bn (\$66bn) in 2015 and German carbon emissions have not fallen since 2010. At least in China airborne pollutants fell for five years and the benefits in terms of deaths avoided were real. Now the government needs to show that these gains can continue for more than a few years—without leaving children freezing outside. ■

Protests over wage arrears

High and dry

BEIJING

'Tis the season to threaten folly

EIGHT construction workers threatening to hurl themselves from the top of a tall building caused a brief commotion last month in the southern Chinese city of Shenzhen. Their demonstration was only one notable example of a form of protest that grows particularly common at this time of year. December and January are the busiest months for altercations related to unpaid wages, as workers seek any means to solve their problems ahead of the soon-arriving Spring Festival. With Beijing's poorest still stewing over a decision to demolish swathes of the city's cheap housing, the risk is that this year's seasonal disputes will end up even tenser than usual.

Quarrels relating to unpaid wages are endemic in the construction industry, and in recent years have also afflicted factories, service businesses such as catering and even some internet startups. Construction firms employ hordes of labourers from the countryside, of whom only a fraction toil under proper contracts, says Susan Finder, an expert on China's legal system based in Hong Kong. Many receive only monthly expenses and a promise of full payment once the job at hand is complete. If their projects end up unprofitable—or lose chunks of cash to corruption—they are the last to be paid. In such cases long chains of subcontracting make it unclear at first glance who

is responsible.

These disputes always heat up as celebrations of the Lunar New Year approach (in 2018 the week-long public holiday will begin on February 15th). Some migrant labourers need their back pay simply to afford the trip home to see their families. Some will have promised to take back a portion of their earnings to help support children or other dependants whom they have left in their home towns in the care of relatives. In many cases workers fear that debtors will take advantage of the seasonal hiatus to pack up and skip town.

Loud protests are one result. In the first 12 days of December there were at least four cases of unpaid workers threatening to launch themselves from cranes or tall buildings, according to the database compiled by China Labour Bulletin (CLB), a watchdog organisation in Hong Kong (it also counted about 40 other protests about wages). Few are genuinely suicidal; the point is to create a scene requiring police to attend, thereby drawing the authorities into the dispute. Even then, demonstrators may have to settle for a portion of the full amount owed to them, says Geoff Crothall of CLB, and serve a few days in detention as punishment for causing a fuss. Violence is another outlet. Last month a court in Beijing warned that wage disputes were a big cause of murders, and noted that most such killings took place at this time of year.

The government, sensitive to charges that it overlooks the plight of workers, talks endlessly about making sure migrant labourers get paid. Officials helped 3.7m of them claw back more than \$5bn of unpaid salary during 2016, it says; another such drive began on December 1st. It also wants to prevent wage arrears accumulating in future. Since 2011 employers who unreasonably withhold salaries risk time in jail (though that is rare in practice). In July the labour ministry announced a gaggle of measures it thinks will help eradicate the scourge within the next three years, including better enforcement of a law requiring workers to be paid monthly.

For now the problem persists. Solutions led by government are no substitute for better representation of workers, says Tim Pringle of the University of London. The All-China Federation of Trade Unions, the country's only sanctioned outfit, is relatively influential at the city level but is mostly ineffective in the workplace.

Moreover, authorities sometimes look more preoccupied with preventing wage-related protests than with resolving the issues at their heart. On December 12th China's cabinet said it would be using a three-tier scale to assess how well provincial governments deal with wage problems that occur in the year ahead. Leaders who allow five "mass incidents" involving "more than 50" people will automatically receive the lowest mark. ■



Waiting for payday



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Alabama

Where the skies are so blue

BIRMINGHAM AND MIDLAND CITY

A prosecutor of Klansmen captures Jeff Sessions's old seat, as the Republican Senate majority shrinks to one

AT FIRST, the mood at Doug Jones's election-night party was genial but uneasy. Guests knew Mr Jones was closer to winning a Senate seat than any Democrat in a quarter-century; they also knew that Donald Trump won Alabama by 28 points, and the last two Republican Senate candidates won 64% and 97.3% of the vote. So they smiled, and made all the right hopeful noises, but around the corners of their eyes you could see them bracing for disappointment. Rural votes came in first; they solidly favoured Roy Moore, the Republican candidate. But as the night wore on, Mr Moore's lead shrank. As votes from Alabama's cities returned, it vanished. When networks finally called the race for Mr Jones, just before 9.30pm local time, the crowd's scream was almost primal, as much disbelieving relief as joy. Mr Jones captured their mood in the first sentence of his victory speech: "I think that I have been waiting all my life, and now I just don't know what the hell to say."

The result is both a historic win and one liable to over-interpretation. Special elections can produce freak results which get overturned a few years later. Moreover, Mr Jones's victory was narrow. He took 49.9% of the vote to Mr Moore's 48.4%, with the remaining 1.7% going to write-in votes. He won every county that voted for Hillary

Clinton and flipped those that Mr Trump won by 15 points or less, banking lots of votes in the counties containing Alabama's five biggest cities, and winning big margins in the state's majority-African-American "Black Belt" counties. Black voters, who usually comprise around a quarter of Alabama's electorate, turned out in droves. Exit polls suggest they made up 29%, and that Mr Jones won 96% of their votes. His strong performance in the state's most populous counties suggests that he also flipped some white suburbanites.

Mr Moore, meanwhile, underperformed Mr Trump in every one of Alabama's 67 counties, faring especially poorly in those with lots of educated voters. White evangelicals—Mr Moore's core supporters—made up a smaller share of the electorate than in past elections. Some of them stayed home, or even voted for Mr Jones, despite vehemently disagreeing with his pro-choice position on abortion. Rushton Mellen Waltchack, a Christian and lifelong Republican from Birmingham, compared Mr Moore to "a televangelist who falls from grace", and said she could not bring herself to vote for him. "He makes statements that to me don't represent Jesus in the Bible...What does it say about us as a party if we continue to choose policy over character?"

A further reason not to read too much into the result comes from the extraordinary nature of the candidate match-up. Politics is seldom Manichean. This election really was. Mr Jones is genial and steady, Mr Moore preening, sour and angry. Mr Jones ran on policy, talking about "kitchen-table issues" such as health care and education; apart from hating abortion and same-sex marriage, Mr Moore talked about little other than his own piety. Mr Jones was a federal prosecutor who successfully convicted two Klansmen who killed four black girls in an infamous church bombing in 1963. Mr Moore was twice removed from his post as Alabama's chief justice for flouting federal law. He believes homosexuality should be illegal, Muslims should not be allowed to serve in Congress, the constitution exists to foster Christianity and that America was last great "at the time when families were united—even though we had slavery". Nine women have accused him of offences ranging from sexual misconduct to assault; most were teenagers at the time of the alleged offences. It is hard to imagine many future Senate elections throwing up a Republican candidate so repellent that one sitting Republican senator—Jeff Flake of Arizona—donated money to the Democrat's campaign.

When those accusations emerged, other Republicans distanced themselves from Mr Moore. Mitch McConnell, the Senate majority leader, said he believed the women. "If these allegations are true," said Mr Trump's press secretary, Mr Moore should "do the right thing and step aside". But as Mr Moore's polling numbers began to creep back up, Mr Trump, also accused of sexual offences ranging from harassment to assault, endorsed him. Other Republi- ►►

cans crept back into the fold. One notable exception was Richard Shelby, Alabama's senior senator. Two days before the election he went on a prominent talk show just to say, "I couldn't vote for Roy Moore. The state of Alabama deserves better."

At a rally in south-eastern Alabama the night before the vote, Stephen Bannon, Mr Trump's former chief strategist and the architect of his presidential campaign, fronted a motley crew of far-right Republicans who offered bilious, resentful speeches promoting Mr Moore while pandering to Alabamans' prickliness. "Nobody can come down here and tell folks in Alabama what to do," said Mr Bannon, a Virginian, speaking after a Texan and several Midwesterners. Other speakers attacked George Soros, Islam and "the lynch-mob media". No name got longer and more sustained boos than Mr Shelby's. Mr Moore's wife defended her husband against charges of bigotry by revealing that "one of our attorneys is a Jew".

That rally was one of Mr Moore's few public appearances in the campaign's last days. He did not campaign for votes as Mr Jones did, with handshakes and persuasion; instead, he restricted himself to friendly audiences and hand-picked media, the better to avoid difficult questions.

Revenge of the 1%

Still, in politics narrow results can have disproportionate effects. Before December 12th it sometimes seemed as if the president had an unbreakable hold over Republican voters, and that they were marching together to the tune of the white identity politics played by Mr Bannon. His plan for next year, to back primary challengers to Senate Republicans he deems insufficiently loyal to Mr Trump, is starting to look flimsy. Mississippi remains fertile territory for him, but after that the mid-term map appears unfriendly. And donors—seeing his candidate lose a seat that a corpse could have won for the Republicans—may take their money elsewhere. Mr Trump has now backed three losers in a row: Mr Moore; Luther Strange, whom Mr Moore beat in the primary; and Ed Gillespie, who lost the Virginia gubernatorial race. Congressional Republicans might see this and calculate that they can afford to be a little braver than they have been in standing up to the president.

The Republican Senate majority is now down to one seat, and the prospect of losing the chamber in next year's mid-terms is real. In Mr Moore they may have found partisanship's outer limit. As for Mr Jones, he will face long odds when he runs again in three years, presuming Republicans learn their lessons and nominate a less divisive character. But on December 12th he showed the world an Alabama that rejected hate in favour of decency and competence, if only by a percentage point. ■

Deportation

Rhetoric and reality

SANTA ANA, CALIFORNIA

Deportations of undocumented migrants decline under Donald Trump

ON THE morning of October 4th Gwen and Rossyo Barrios Mendoza, two teenage sisters, were scurrying around their family's small home in Santa Ana. They ate cereal, fed the chickens and got their bags ready for school while their four siblings snoozed. Then they waved goodbye to their father, Israel, as he backed his grey pickup truck out onto their sunny street and began driving towards the building site where he worked as a house-framer. A minute or two later Gwen received a call. It was her father, and his voice sounded shaky: "Gwen—I've been arrested. They're going to leave my truck on the street around the corner. Have your mom come get it."

Mr Barrios Mendoza is now being held in a detention centre in the Joshua tree-studded California high desert. His children, all six of whom were born in America, had worried about something like this happening to their father, an undocumented immigrant from Mexico, ever since Donald Trump was elected president. While campaigning, Mr Trump had promised to "round up" and remove all 10m undocumented immigrants estimated to be living in America. It was an impossible vow to keep, but the country still braced for an onslaught of deportations.

Yet figures released by the Department of Homeland Security (DHS) on December 5th show that the total number of deporta-

tions has declined over the past fiscal year—from October 1st 2016 to September 30th 2017—to the lowest level seen since 2006. The data also show that deportation has become less selective in the Trump era, increasing the risk of removal for people like Mr Barrios Mendoza, who have led long and quiet lives in America.

The decrease in total deportations is largely explained by a 17% drop in the number of immigrants arrested and removed at the border over the past fiscal year. Recent border crossers are the easiest to deport; those found within 100 miles (161km) of the frontier who have been in America 14 days or fewer are not entitled to make their case before an immigration judge, a process that can take months, if not years, in the backlogged courts. DHS officials credit tighter border security and more stringent interior enforcement with dissuading migrants from making the risky trek across America's southern frontier. Mr Trump's harsh rhetoric probably served as a deterrent, but border apprehensions, which are often used as a proxy for illegal immigration, began declining before he moved into the Oval Office.

While border removals have dipped, deportations of immigrants arrested in the interior of the country have increased by a quarter over the past fiscal year, due to Mr Trump's expansion of who is considered eligible for removal. In February the DHS issued new immigration enforcement guidelines that are far broader than those implemented under Barack Obama.

During the second half of Mr Obama's second term, Immigration and Customs Enforcement (ICE) officers were asked to focus on arresting newly arrived immigrants and undocumented immigrants with felony convictions. Mr Barrios Mendoza, whose only scrape with the law was a ticket for driving without a licence (which his migration status prevented him getting), may not have been entirely safe from deportation, but he would not have been an active target. "Felons, not families," Mr Obama summarised when announcing the priorities. Statistics presented by ICE in 2016, Mr Obama's final year in office, suggested that 83.7% of immigrants deported that year constituted threats to public safety, or had been apprehended at the border when trying to cross illegally.

The Trump administration's guidelines are far more sweeping. ICE officers are to focus not just on immigrants with criminal convictions, but even on those with unsettled criminal charges. The instructions do not distinguish between violent crimes and more minor infractions, such as traffic offences or immigration crimes, which include crossing into America without permission. "The Department no longer will exempt classes or categories of removable aliens from potential enforcement," read the DHS memo of February. At a recent ►►



A less common sight

press conference Thomas Homan, the acting director of ICE, put it more bluntly: “There is no prerequisite that you commit yet another crime to enforce immigration law. You know the IRS enforces tax law, we enforce immigration law. That’s our job.”

Despite casting a wider net, Randy Capps of the Migration Policy Institute, a think-tank, does not expect DHS to increase deportation numbers unless it can quickly add more ICE officers. The number of undocumented people arrested each week in the interior of the country has not increased much since February, suggesting that the agency may be at capacity. Detention centres, where populations are overflowing, present another limiting factor. In October DHS began exploring the possibility of opening five new detention centres, but such facilities would take time to find or build and congressionally appropriated dollars to run. The fact that deportations are unlikely to increase much is of little comfort to the Barrios Mendoza children, whose mother has taken to selling home-made *tamales* to pay the rent while their father sits in detention. ■

Partisanship

The “fire Mueller” chorus

WASHINGTON, DC

A special counsel’s probe into Russian election-meddling divides America

IN A happier, more innocent age, also known as spring 2017, Republicans and Democrats agreed to disagree about the special counsel, Robert Mueller, and what they made of his investigation into Russian meddling in the presidential election.

Grandees from each party competed to praise Mr Mueller, a craggily severe former FBI director, appointed by George W. Bush and kept on by Barack Obama. Newt Gingrich, the former Republican Speaker of the House of Representatives and tireless champion of President Donald Trump on cable television, called Mr Mueller a “superb choice” known for “honesty and integrity”. The Democratic leader in the Senate, Charles Schumer of New York, called Mr Mueller “exactly the right kind of individual for this job”.

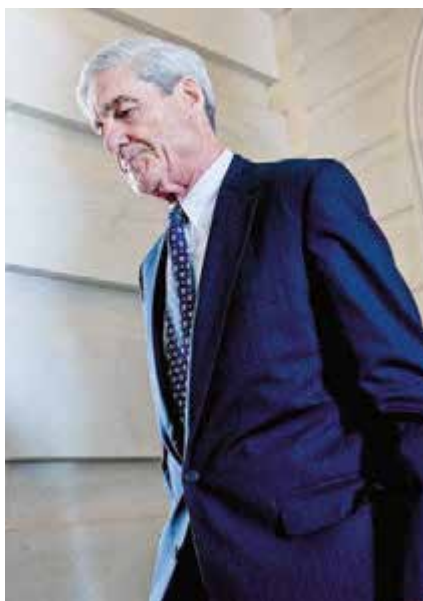
Bigwigs from the two parties were also as one in adopting grave expressions and tones of outrage, when pondering evidence that Russian spooks meddled in the election of 2016, notably by stealing and leaking embarrassing e-mails from Hillary Clinton’s campaign chief and from the Democratic National Committee. The current Speaker, Paul Ryan, spoke for many congressional leaders when he said it was clear that Russia had tried to interfere in the

election. “What we need to determine is not whether they did it—we know that,” said Mr Ryan, a Republican. “It’s what did they do, how did they do it, how do we prevent it from happening again?” Mr Trump played the outlier, repeatedly casting doubt on whether Russia had meddled in the poll. That is because the president sees such a charge as a personal attack, questioning the legitimacy of his win. With most Republican and Democratic leaders in agreement that Russia had behaved badly and that Mr Mueller was the chap to find out why, they disagreed only on one big thing: whether Russia was helped in its perfidy by the Trump campaign. You betcha, said Democrats. Not so fast, retorted lots of Republicans, no evidence proves collusion with Team Trump yet—we bet the president will be exonerated.

A few grim months on, partisanship has reached such feverish heights that Republicans and Democrats no longer easily agree whether Mr Mueller’s probe is an honest attempt to find the truth. Worse, the bipartisan consensus has broken down when it comes to the hacking of Democratic e-mails, and whether that was Russia’s worst attack on American democracy.

Read Trump-sceptic newspapers or watch such cable networks as MSNBC or CNN, and the evidence is stacking up of Russian collusion with the president. This story comes with villains and prime suspects. Michael Flynn, a former national security adviser to Mr Trump, pleaded guilty on December 1st to a charge of lying to FBI agents probing Russian collusion, as part of a deal to tell Mr Mueller what he knows. Paul Manafort, a former chairman of the Trump campaign, has been charged with money laundering, in what looks like a bid to flip him, too.

Watch Fox News or read conservative



Mueller, the best and the worst

news outlets, and different villains and storylines dominate. Trump-supporting pundits and reporters have spent days talking about Peter Strzok, a senior FBI agent who, it emerged, was removed from the Mueller inquiry after the Department of Justice uncovered thousands of text messages that he sent to an FBI lawyer with whom he was having an affair, including many calling Mr Trump an “idiot” and “loathsome” during the election campaign, and expressing fervent hopes that Mrs Clinton would win. On the right that revelation is of a piece with reports that Nellie Ohr, a Russia analyst married to a senior Department of Justice lawyer, Brian Ohr, did some work in 2016 for Fusion GPS, a firm of private investigators that drew up a dossier of unverified dirt on Mr Trump supposedly held by the Russian government. Now such conservatives as Mr Gingrich thunder that “Mueller is corrupt, the senior FBI is corrupt”. Sean Hannity, a Fox News host, has called Mr Mueller “the head of the snake”.

On talk radio such figures as Rush Limbaugh have a different Russian scandal in their sights. Because the Fusion GPS dossier was funded by anti-Trump Republicans and then by the Clinton campaign, and because it drew on tips from Russian intelligence sources recruited by Christopher Steele, a former officer in Britain’s Secret Intelligence Service, Mr Limbaugh now presents it as an act of collusion between Democrats and Russia, telling listeners: “Hillary Clinton worked with the Russians and paid for this dossier to be created and written.”

A swelling chorus now suggests that Mr Trump should rein in or fire Mr Mueller. A Florida congressman has declared that the special counsel may be planning a coup d’état. On December 12th Jay Sekulow, a personal lawyer for Mr Trump, called for a special counsel to be appointed to investigate possible conflicts of interest at the Department of Justice, especially involving Mr Ohr, who was reportedly moved to a new post after failing to report a pre-election meeting with Mr Steele of Fusion GPS.

A day later members of the House Judiciary Committee squabbled over the import of Mr Strzok’s anti-Trump text messages. Republicans saw “disgusting, unaccountable political bias” that undermines Team Mueller. The committee chairman, Representative Bob Goodlatte of Virginia, called for a special counsel to investigate a now-concluded FBI probe into Mrs Clinton’s use of a private e-mail server as secretary of state. In contrast Democrats asked the deputy attorney-general, Rod Rosenstein, whether he fears that Mr Trump might fire him or Mr Mueller. No, replied Mr Rosenstein. Meanwhile the Mueller probe grinds on, in a country being torn apart by distrust and competing versions of reality. America’s enemies must be hugging themselves with glee. ■



Coal

Holler promises

WELCH AND WILLIAMSON, WEST VIRGINIA

What the president talks about when he talks about coal

ON A brisk early-autumn morning in Welch, seat of the poorest county in America's third-poorest state, four young men methodically demolish an old car-parts factory. The men wielding sledgehammers are not vandals, but construction trainees hired by Coalfield Development, a local non-profit, and they are working hard. The low, solid building has good bones, but has fallen into disrepair from extended disuse. The same is true of Welch itself. The beautiful stone and brick buildings, complete with carved mullions, stone flares along rooflines and other architectural flourishes, show that once upon a time this town had confidence and money. Discount shops and boarded-up shopfronts testify to a harder present.

McDowell County is the heart of Appalachia, a once-Democratic region that voted overwhelmingly for President Donald Trump. Mr Trump won four of America's top five coal-producing states (Illinois, with much of its population concentrated in and around liberal Chicago, was the exception). As a candidate he posed in hard hats, and repeatedly promised to put miners back to work.

That has won him fans in coal country. Bill Raney, who heads the West Virginia Coal Association, says that Mr Trump "brought an appreciation for what these

folks in Appalachia do...He just gave a renewed vigour and enthusiasm and confidence in coal," which was especially welcome after what Mr Raney calls the "eight miserable years" under Barack Obama's administration, which "did everything they could to discourage" coal use. The president's tenure in office has coincided with increased coal production. In the first six months of 2017, America produced 16% more coal than it did in the same period last year, for which many in the industry, rightly or wrongly, credit Mr Trump.

But that is a small uptick set against a steady decline, which has been caused primarily not by environmental regulations, as Mr Trump and many in the coal industry claim, but by market forces. More people work as fitness trainers, actors or florists than in the coal business. The Bureau of Labour Statistics estimates that coalmining employed 51,200 people as of November 2017—an improvement, year-on-year, of more than 1,500, but still well below the recent peak of 89,700 in 2012.

Nationally, coalmining employment peaked in 1920, when there were around 785,000 miners. The marked decline in employment partly stems from automation. According to Devashree Saha and Sifan Liu of the Brookings Institute, a think-tank, in 1980 American mines produced

1.93 tons per miner-hour; by 2015 they produced just under 6.3. Automation did to coal mining what it did to manufacturing: made it more dramatically productive even as it reduced the amount of human labour required. This trend will probably intensify in the near future, as machines grow increasingly autonomous.

The dip in jobs also reflects a westward shift in America's coal heartland. To the average American, the word "coalminer" summons an image of a weather-beaten man in Appalachia with a pickaxe in one hand and a hard hat with a lamp on it walking stoically into a mountain fissure. That image has not been accurate for decades. Most American coal comes not from West Virginia or Kentucky, where production has been falling since 1990, but from immense surface mines in Wyoming's Powder River Basin. Coal there is far cheaper to mine, partly because it requires much less labour, than in Appalachia, where the easiest seams have long been tapped out, and what remains is deep inside mountains and hard to reach.

Most American mined coal goes to generate domestic energy, but a disproportionate share of coal companies' revenue comes from exporting metallurgical coal, used in steel manufacture. At the peak of Chinese coal demand earlier this decade, prices for exported "met" coal were often triple those of other types. Coal firms bet that demand would continue, and that Asian markets would also want ordinary steam coal. But as China's economy began to rebalance away from massive infrastructure building and towards consumption, demand flattened, then fell. If China's appetite remains depressed, along with global and domestic demand, so will coal revenue and employment.

The real threat to coal, though, is gas, which fracking has made cheap and abundant. Coal remains America's second-most widely used energy source, generating 30% of American electricity in 2016, more than nuclear (20%) or renewable sources (15%). Natural gas, however, generated 34%, a share that has risen as coal's has fallen—by close to a third from 2011 to 2016. Renewable energy is also getting cheaper and more widespread. Since 2010 the share of domestic energy generated by renewables has grown by nearly 50%.

Gas and air

Many Appalachians saw Mr Obama's environmental attitude not as sound policy aimed at mitigating the risks of climate change, but as an affront from another big-city liberal looking down his nose at them. Similarly, Mr Trump's support of coal seems as much a political payoff to a region and industry that supports him as a retrograde effort to prop up a dirty and expensive energy source in defiance of market economics. But such hope can be a bar- ▶▶

► rier to diversifying the region's economy. The likelier a young man is to believe he will one day have a six-figure coal job like his father, the less likely he is to train for anything else.

In Appalachia, coal is not just a commodity; it is a cultural totem. The chamber of commerce building in Williamson, tucked away in West Virginia's south-west corner, is built from 65 tons of coal mined from the nearby Winifrede Seam. T-shirts and mesh caps for sale in West Virginia's main airport advertise that the wearer is a "Coal Miner's Wife". Licence plates in Kentucky proclaim the drivers "Friends of Coal", and in 2014 the state's senior senator, Mitch McConnell, used as a campaign slogan "Coal. Guns. Freedom."

Many see coal as evidence of divine favour: He put it under American soil for Americans to exploit as they see fit, not to keep in the ground to please pencil-necked environmentalists. Many families have at least one member who has worked in the mines or related industries. Coal provided jobs for people with a strong work ethic but little formal education. One West Virginia banker, a pillar of his community, grows misty-eyed recalling his father, who left school when he was 13 and became a repairman in local mines, earning a six-figure salary that supported a family of six. These jobs were not only well paid, they were also important—coal powered America's expansion and industrialisation—and dangerous. The men who went "down the mines" had a similar band-of-brothers camaraderie to men at war.

Taken literally, which is usually a bad idea, the administration's policies are intended to revive this lost world. First, it wants to repeal the Clean Power Plan, an Obama-era initiative intended to limit carbon emissions from power plants, which the president has called "stupid" and "job-killing". "Did you see what I did to that?" he asked a crowd in September. "Boom, gone." This pleased the audience but was false, for the plan has not yet taken effect. The Supreme Court blocked implementation while it considered lawsuits filed by multiple states arguing that the EPA had exceeded its authority in enacting the plan. Mr Trump's repeal proposal may also face legal challenges. In any event, the EPA cannot simply decline to regulate emissions. The "endangerment finding" of 2009 obliges it to find "the best system of emission reduction" for carbon. The previous administration thought the Clean Power Plan fitted the bill. Even if the current administration successfully repeals the plan, it will still need to come up with the best possible way to regulate carbon emissions.

Second, in late September Rick Perry, the energy secretary, proposed that the Federal Energy Regulatory Commission (FERC) should, in effect, subsidise power plants that have a 90-day fuel supply on

site—a category that includes coal and nuclear plants, and excludes renewables, which rely on weather, and natural gas plants, which get their energy through pipelines. He cast this as a way to counteract subsidies provided to renewables, and to keep America's electricity grid reliable and resilient. In a letter to the FERC he noted that during the Polar Vortex (a period of sustained cold) in 2014, coal plants on the brink of closure were kept online to meet the demand for heat. The commission asked for more time to think it over. Mr Perry grudgingly agreed, setting a new deadline of January 10th.

Subsidy and perfidy

In his proposal, Mr Perry neglected to mention that at several plants massive coal piles froze solid, and in much of the country wind power and energy-efficiency measures helped meet peak demand. And a report from his own department found that the main reason coal-fired plants were being retired was not subsidies for wind and solar, but "the advantaged economics of natural-gas-fired generation". If the FERC adopted Mr Perry's rule, it would amount to one of the biggest government interventions in energy markets for decades, and risks frightening investors by putting a thumb on the scale for coal and introducing policy uncertainty.

Some see a darker motive in Mr Perry's proposal—and indeed in Mr Trump's fondness for coal. Nora Brownell, a Republican ex-FERC commissioner appointed by George W. Bush, calls it "cash for cronies"; she believes it was intended to help coal firms and bosses that donated heavily to Mr Trump's presidential campaign, and to

Mr Perry's before it imploded. Bob Murray, one such boss, implored the White House to use emergency powers to save several coal plants from bankruptcy. Mr Trump declined, but several weeks later Mr Perry released his proposal. The former acting chairman of the FERC does not believe the proposal was intended to benefit any specific company or donors. Ms Brownell says that "as part of a long-term economic strategy [Mr Perry's proposal] makes literally no sense, no matter what party you are."

It is hard to think of many more misguided public policies than subsidising coal production. Asking the FERC to favour one fuel over another also tinkers with a market mechanism that has served the country fairly well. In fact, these policies make sense only as a kind of political theatre, according to which both the administration and its many supporters agree to pretend that it is possible to return to some mythical glorious past, when brawny American men, rather than machines or foreigners, smelted steel, mined coal and built things on assembly lines. That world is gone—and even in coal country, some have come to grips with its absence.

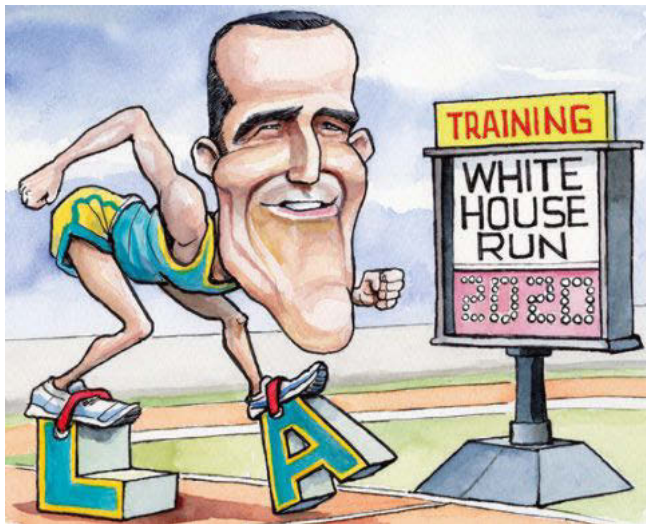
The four men in Welch demolishing the old factory (to turn it into an arts centre, no less) are precisely the sort who would once have worked in the mines: healthy, diligent, reliable. All four come from multi-generational mining families. But the industry holds little appeal for them. Gary, the smallest, fears being sent into small, narrow spaces. PJ worries about safety. "It's not like it was," says Ramon, the biggest and oldest of the quartet. "Those jobs aren't coming back, and even if they did, you don't know how long they'll stay." ■



It's the hope that thrills

Lexington | Tinseltown dreams

Eric Garcetti, LA's mayor, thinks the White House needs someone a lot like Eric Garcetti



TOWARDS the end of an amusing few hours with Eric Garcetti, the mayor of Los Angeles, Lexington asked an abrupt question. Many Angelenos—in fact, every Angeleno he had consulted—appeared to view Mr Garcetti's recent hints that he was mulling a run for president in 2020 with astonishment, hilarity even. Were they right to be surprised? The 46-year-old Democrat, who has found occasion to visit Florida, Louisiana and New Hampshire in recent months, paused a moment. "Probably," he said, "I mean I would probably have been, if a mayor had said that."

Generals, senators, governors and a reality-television host have all become president. No mayor ever has. That reflects a political tradition in which states, not cities, are the building-blocks of the republic, the currency of presidential elections and the main counterparts to the federal government. With one or two notable exceptions, such as Fiorello La Guardia, New York's post-Depression mayor, the characters drawn to mayoral office have as a result tended to be more modest and pragmatic than governors and senators. Yet Mr Garcetti, a dapper man, whose self-deprecating chuckle cannot hide his ferocious ambition, believes the path from City Hall to the White House is now clearer.

He may well be right. Globalisation and the growth of great cities such as Los Angeles have raised the profiles of their mayors. Only a few years ago it was thought remarkable that Michael Bloomberg (who considered a run) and Boris Johnson, while presiding over New York and London, hired foreign-policy teams. That is now standard, with big-city mayors prominent in global discussions of climate change, urban policy and investment. This phenomenon has also coincided in America, as Mr Garcetti notes hopefully, with growing distrust in status-quo politics, lowering the entry barriers to national office. "Why hadn't a black American won the presidency before? Why hadn't a reality TV star? History is always 'no blank can't do blank until a blank does it'".

This looks like an appealing opening. As the engines of America's growth, and repositories of most of its inequality and crime, cities are responsible for a lot of the policy innovation for which states have traditionally claimed credit. That is also because mayors tend to be particularly good at building consensus, especially in cities such as Los Angeles where they co-exist with powerful city councils. Mr Garcetti's biggest achievements from his four

years in Los Angeles's splendid Art Deco City Hall—including a minimum-wage increase and cuts to business tax—are all tributes to his powers of persuasion. "If I was just walking around with a "D" on my forehead, or an "R" on my forehead, I couldn't have done one of those," he says.

Optimism, sophistication and an appetite for the future, the attributes of America's big cities, are Mr Garcetti's pitch. A record of bipartisanship might also help him woo independents. As a west-coast liberal, with a wonkish air and overfondness for leftish jargon, he would need it. Mr Obama was a wonk with a gift for verbal simplicity. Mr Garcetti, though articulate, is capable of lines such as: "What works in that same space that Democrats are really cautious about is the visceral stuff, too, 'the guts piece'."

Bipartisanship does not win primaries. Yet Mr Garcetti trusts his progressive credentials would pass muster there. He is, after all, Jewish, Spanish-speaking, and a proponent of transgender rights and universal health care. Democrats could perhaps also use some fresh blood, which may be another reason he fancies his chances. Their likeliest contenders for 2020 are oldsters such as Joe Biden, Bernie Sanders and Elizabeth Warren. They have few Democratic governors to choose from. Mitch Landrieu of New Orleans, another impressive Democratic mayor, seems minded not to run.

How Mr Garcetti might fare in a presidential race is nonetheless hard to gauge. That is mainly because of one of his main strengths, his relative novelty. It is also because of a traditional weakness of local leaders. Even where their policies are innovative, the specifics can sound trifling—perhaps especially in Los Angeles because its mayoralty has less power than those of other big cities. Education is the purview of a giant school board. The police department was reformed after the Rodney King riots in 1992. Some of Mr Garcetti's boasts, including his effort to bring the Olympics to Los Angeles in 2028 and help the homeless, do not at all sound like credentials for leading the free world. This was a problem that sank Martin O'Malley, a former governor of Maryland who liked to talk about his past projects in Baltimore. Mr Garcetti concedes the risk: "There's a scenario in which I could crash and burn, I could O'Malley it."

Now fill in the blanks

He is admirably composed; Mr Garcetti's claim to have "always been scared by what comes next" hardly seems credible. Yet it was striking how often he struggled to provide a straightforward answer. This was sometimes because he was still grasping for the right one to big questions, which seemed fair enough. If Mr Garcetti has no simple solution to the feelings of economic insecurity he identifies as America's biggest problem, he is hardly alone in that. Yet he was also too obviously reluctant to take potentially compromising positions. He claimed not to "have a problem" with those Democrats who say Donald Trump should be impeached, but would not say whether he agrees with them. He was reluctant to say which other Democratic leaders, with the predictable exception of Barack Obama, he most identifies with.

Mr Garcetti's audacious punt should not be astonishing. The political rules are in flux and the Democratic competition does not look imposing. But he will not rise above it by playing safe. Mr Obama and Mr Trump, the disruptive forces he hopes to follow, could get away with obfuscating because both, in their different ways, were exceptional campaigners. To have a serious chance of emulating them, Mr Garcetti will need to be bolder. ■



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Brazil's new politicians

Taking on the dirty old men

SÃO PAULO

Angry with a corrupt Congress, a fresh generation of Brazilians steps on stage

WITH his reversed baseball cap and facial fuzz, the style of 29-year-old Daniel José Oliveira (pictured) is hardly typical for a Brazilian politician. Nor is his background: he was one of 11 siblings brought up in a small town by a domestic servant and an office porter. After winning a scholarship to a Catholic school, he studied economics at a fine São Paulo campus. That led to a job at J.P. Morgan, a scholarship to study at Yale University and a job offer from another American investment firm.

But in 2015, with Brazil's economy crashing and its politics mired in scandals, he instead came home. Inspired by *En Marche!*, the French liberal party which propelled Emmanuel Macron to the presidency, he hopes to be elected next October as a federal deputy for São Paulo state.

Until recently, politics was a turn-off for his generation. The average age of lower-house deputies elected in 2014 was 50, 19 years above the national mean. Brazil's old-timers are discredited: after more than three years of the *Lava Jato* (car wash) corruption probe, 40% of congressmen are under investigation. Politicians are unloved. Just one voter in 20 admires them; only 3% approve of President Michel Temer.

Confidence in congress has been sagging for ages. In 2010 Tiririca (Grumpy), a professional clown, was elected to Brazil's lower house under the slogan "It can't get any worse." It did. On December 6th he

told his congressional colleagues he would not seek re-election in 2018. "Only eight of the 513 actually show up here," he moaned. "I am one of those eight and I am a clown."

Young Brazilians are fed up. "Four years ago someone like me running for congress would have made no sense," says Mr Oliveira. But renewing Brazil's congress will not be easy. Independent candidates are banned and parties are unwelcoming to newcomers. In some states seats stay in the hands of well-known families.

Dislodging them may get harder. In 2015, after a series of scandals, Brazil's supreme court outlawed corporate campaign contributions. In October congress created a "special campaign-finance fund"

for next year's election. But the fund, and airtime, will be allocated in proportion to parties' current representation. That frustrates newcomers. "Congress is like a cancer," says Mr Oliveira. "It's not working in the best interests of the body and it's defending itself to survive."

People are trying to find a cure. Mr Oliveira has applied to RenovABR, a programme to support young Brazilians who want to run for congress. Financed by entrepreneurs, it offers 150 "scholars" courses on Brazil's institutions plus advice on campaigning and policy. It has thousands of bidders for a half-year programme starting in January. Scholars will get a monthly stipend of 12,000 reais (\$3,645).

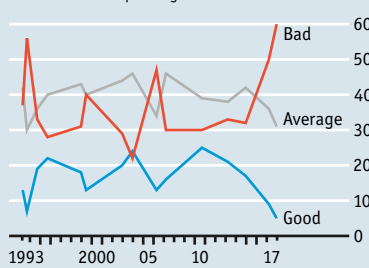
They will be selected by written tests and interviews. They can belong to any party, but cannot hold extremist views. In return the scholars vow to complete their mandate, justify their voting decisions to their constituents and avoid hiring family as staff members. Eduardo Mufarej, who started the project, hopes to see at least 45 scholars elected.

Other groups are working to make congress more representative. Bancada Ativista (Activist Group) is a left-leaning outfit, formed to fight São Paulo's city-council election in 2016. Rather than creating a party, it chose eight candidates from two established ones. Only one was a heterosexual white male. "By definition, a black woman is more representative than a white graduate from Harvard," says Caio Tendolini, a 33-year-old member of the group. It arranged "speed-dating" events for candidates to meet voters and offered social-media training and public-policy contacts. It started working: the candidates drew a total of 75,000 votes and one got in. It will scale up its operation next October.

Agora! (Now!) was founded in 2016 to ▶▶

An appalling assessment

"How do you evaluate the performance of senators and federal deputies in Brazil's congress?"
% of Brazilians responding



Source: Datafolha

► coax into politics young Brazilians who had shown leadership skills in other fields. Until now it has largely focused on developing policy ideas. “Politicians here think about getting elected first and then worry about their agenda...it should be the other way around,” says Marco Aurélio Marra-fon, one of the group’s 150 members. Agora! has working groups on everything from health to homicide. It initially had no plans to run for congress, but “things are getting out of control”, says Ilona Szabó, a co-founder. Next year it plans to field 30 candidates for congress by persuading two parties, Partido Popular Socialista and

Rede, to be vehicles. “We want to be a new political force,” says Ms Szabó.

October’s elections are perhaps the most important since democracy was restored in 1985 after 20 years of dictatorship. They are also unpredictable. Fewer Brazilians than ever identify with the old left-right model. Most want to try something new. That can favour extremists: Jair Bolsonaro, a congressman who says harsh things about gays and women, is second in the polls for the presidency. But it could also help moderate newcomers. Four out of five Brazilians say they want “ordinary citizens” to run for congress next year.

Their efforts may fail. New candidates fret about finances and some are already running low. Mr Oliveira used to help his parents out with the bills. Since deciding to run for office he has had to stop. With corporate donations banned, the candidates must rely on individual contributions, and no one knows how generous Brazilians will be. Lack of broadcast time will hurt.

“Next year might not be the tipping point,” warns Mr Oliveira. “But we have to open a trail. If not, there will be no hope of renewal in 2022.” Political renewal may not happen overnight. But Brazil’s Young Turks are making a start. ■

Bello | The literature of fear

Juan Rulfo’s darkness speaks to a new generation of writers

FOR a writer, he was a man of extraordinarily few words. Juan Rulfo produced only one short novel, “Pedro Páramo”, and a collection of short stories, “El Llano en Llamas” (translated as “The Burning Plain”). Together they comprise fewer than 300 pages. And that, apart from a couple of fragments and a few film scripts, was it. Yet not only does Rulfo enjoy a towering reputation in Spanish-language letters. In addition, as has become clear during the commemorations this year marking the centenary of his birth, his work has at least as much relevance for many young Latin American writers as that of successors such as Gabriel García Márquez or Mario Vargas Llosa, who are far better known to English-speaking readers.

Rulfo was marked indelibly by his childhood. He was born into a family of landowners in the western Mexican state of Jalisco. They lost their lands in the turmoil of the Mexican revolution (1910-17) and the counter-revolutionary Cristero war of the late 1920s. His father was murdered, shot in the back when Rulfo was six. His mother died when he was ten. After a spell in an orphanage, at 16 he moved to Mexico City, where he worked as a civil servant and later a tyre salesman while attending courses on literature at the university. After publishing his two books in the mid-1950s, he carried on working as an editor at Mexico’s National Indigenous Institute. He died in 1986.

Rulfo’s stories draw on the rural Jalisco of his childhood. Pedro Páramo, the main character of the novel and the unmet father of its narrator, Juan Preciado, is a *cacique* (boss), who by violence and threat appropriates all the land in the fictional town of Comala, along with many of its women. He tells his foreman: “From now on we are going to make the law.” Páramo



is “living rancour” and “pure evil”. Yet he wins the absolution of the town priest in return for a few gold coins. When guerrillas turn up in Comala, Páramo offers them money and men: “You have to be on the winning side.” He is defeated only by a childhood sweetheart who goes mad rather than succumb to him.

In other hands, “Pedro Páramo” would have been merely a social-realist denunciation of rural injustice, a “regional novel” of a kind fashionable in Latin America in the first half of the 20th century. Two things make it much more than that. The first is the lyricism of Rulfo’s writing. He is acutely sensitive to the earth, its fruits, its barrenness and the changing seasons. Preciado’s mother describes the lost Comala of her youth as “a town that smells of spilt honey”; she inwardly sees “the horizon rise and fall with the wind that moves the ears” of grain.

A second quality makes “Pedro Páramo” perhaps the first modern novel in Latin America of universal significance. Rulfo had read William Faulkner and was aware of surrealism with its emphasis on dreams and the unconscious. Comala is a

town of ghosts. “Have you ever heard the groaning of the dead?” an old woman asks Preciado.

“Pedro Páramo” is ultimately about myth, not realism, and about the presence of death in the midst of life. Preciado is overcome by fear of the supernatural whispers filtering through the walls of the town square. The reader gradually realises that all the novel’s characters are dead. It is modern because it frames a reality rather than merely describing it, and because time in it is simultaneous, not sequential, as Carlos Fuentes, a later Mexican writer, noted.

Read Rulfo today and it is impossible not to hear echoes of contemporary Mexico and the cruelty and arbitrary violence of its drug gangs and, sometimes, of the state forces that confront them. There are still too many Páramos who make their own law. One of the stories in “El Llano en Llamas” recounts the murder of migrants seeking to cross the Rio Grande; another tells of a dispute over grazing rights ending in murder.

Many contemporary Latin American writers have grown up hearing “the groaning of the dead”. Rulfo’s terse, spare poetics and his liking for the short story are back in fashion in Latin America today, after the baroque prolixity of García Márquez or Roberto Bolaño. Writers now touching 40 who acknowledge the influence of Rulfo include Samanta Schweblin, an Argentine whose short novel of psychological terror, “Fever Dream”, was shortlisted for the Man Booker Prize this year; and Emiliano Monge, a Mexican who says his stories “take place with violence as an ecosystem”.

That death can be arbitrary is part of the human condition. That this is too often the case in Latin America, a century after Rulfo’s birth, is an indictment.

Sugar in the Caribbean

Nearly sweet nothing

TRINIDAD

After a long, grim history, a once lucrative trade faces a sticky end

IN ITS 18th-century heyday cane grown in the Caribbean and cut by African slaves provided Britain with nearly all its sugar. The masters of this brutal trade made enormous fortunes. But it has seen 200 years of decline, accelerating after slavery ended in 1838. Now the region is wondering how it will cope after a policy change by the European Union which could finally bring down the curtain.

Today, the English-speaking Caribbean produces under 0.3% of the world's sugar; Brazil grows nearly a quarter. Many islands have abandoned cane for more profitable activities. Trinidad closed its last sugar factory in 2007, and a gas-related boom took up the slack. St Kitts shut its last factory two years earlier, after the debts of its state-owned managers approached a third of GDP. A railway that trundled cane now carries tourists. St Kitts's new staple is passports for foreigners, sales of which finance an opaque development agency, the Sugar Industry Diversification Foundation.

Four Caribbean countries retain their taste for the sweet stuff; altogether, the industry employs more than 40,000 people. But even where it survives, sugar is in trouble. In Guyana 5% of workers still cut cane. But the state-owned sugar company has been losing money since 2008, and exports are expected to plunge by nearly 40% this year. Nearly half the people on the payroll fail to show up regularly. The ruling coalition, which relies on voters of African origin, has laid off 3,500 workers who are mostly of Indian descent; this risks inflaming racial tension. The government has put

three of its six sugar estates up for sale. There may or may not be bidders.

Jamaica has privatised, de-privatised and re-privatised its failing sugar estates, selling three to a Chinese company in 2011. The buyer now complains of low productivity and an awkward government, and says growing sugar is easier in Africa. In Barbados sugar accounts for only 0.2% of foreign-exchange revenues (down from 55% in 1946), but the government says it hopes to revive the industry with a new \$270m factory on the site of an old one. The project has now been blocked by an environmental lawsuit. Only in Belize, where sugar provides a quarter of export earnings, does it seem to have a future. Last year a Guatemalan firm opened a factory there producing high-value white sugar.

The region's wrinkled terrain and volatile weather make it hard to compete against the mechanised sugar operations of Brazil and Australia; average costs in the Caribbean exceed the world price. Britain long offered the industry tariff protection, which was formalised by a Commonwealth Sugar Agreement in 1951. After Britain joined the European Economic Community in 1973, it ensured Caribbean producers had access to the club at high guaranteed prices. This mollycoddled outdated practices, like harvesting by hand.

The EU has been reducing protection since 2005; first it cut the guaranteed price, then abolished it. In October the EU ended quotas which had limited the beet its farmers could grow. Output of European sugar is likely to surge, depressing world prices.

To avert catastrophe, Jamaica's growers propose that Caricom, a group of 15 mostly English-speaking Caribbean countries and territories, should slap a tariff of 40% on sugar from outside. But with many regional economies either stagnant or wrecked by storms, the 7m people affected will balk at a policy that will raise the cost of biscuits and fizzy drinks, consolations which need lots of imported sugar. ■

Voting in Venezuela

Last man standing

CARACAS

Nicolás Maduro's new electoral tricks

“LET us get ready for 2018,” boomed Nicolás Maduro as he hailed the “third great victory of the Venezuelan people”. The president was gloating over a vote on December 10th, in which his United Socialist Party, which has looted and misgoverned the country into economic ruin, bagged more than 90% of the country's mayoral contests.

It was a hollow triumph. The three main opposition parties fielded no candidates, having reasonably called the voting a sham. (The other “victories” were equally flawed: the creation in July of a rubber-stamp “constituent assembly” to replace an elected legislature, and a ballot for governors in October.)

Dizzy with these dubious successes, Mr Maduro's eye is now on a bigger contest, next year's presidential poll. He has not formally declared, but Tareck El Aissami, the vice-president, says his boss hopes for another six-year term.

With that in mind, the regime is now determined to knock out rivals. Mr Maduro has declared that the three parties that shunned the mayoral ballot have disqualified themselves from all future elections. “They will disappear from the political map,” he snapped. The constituent assembly, which is itself a one-party institution, has backed this punitive act. It declared, absurdly, that this view reflected its belief in multi-party politics.

The ban may be partly superfluous. Leopoldo López, who leads one opposition party, Voluntad Popular, is under house arrest. Henrique Capriles, who leads another, Primero Justicia, has been barred from seeking office for 15 years, supposedly because of “administrative irregularities” as state governor. He says he will at least enter the primaries.

Potential leftist contenders are also being targeted. The highest-profile is Rafael Ramírez, a long-term rival of the president, who was sacked as ambassador to the UN after he criticised his country's economic policy. On December 12th Tarek Saab, the chief prosecutor, said corruption charges were being drawn up against Mr Ramírez.

Mr Maduro may yet be surprised by a dark horse. One name being aired is Lorenzo Mendoza, the boss of Polar, a big food-and-drinks firm. When he attended a baseball game last week, the crowd chanted “Presidente!”. He denies any political hopes, but if he were to run, voters might prefer a leader who fills plates, rather than leaving them empty.



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A promotional poster for the film "The Hub" set against an aerial view of a city skyline. The poster includes the "The Economist FILMS" logo in the top left, the "Supported by Santander" logo in the top right, the title "THE HUB" in large white letters, the subtitle "WELCOME TO THE STARTUP JUNGLE", a "WATCH NOW" button, and the URL "films.economist.com/thehub" at the bottom. A blue geometric shape is overlaid on the cityscape.

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Electrification

Shock therapy

NAIROBI

More Africans than ever are connected to mains power. Yet many are not using it much

TOURISTS have long been drawn to Hell's Gate National Park in Kenya by its steep cliffs, plentiful zebras and spectacular canyons. Recently there is a new attraction; a spa set amid the cliffs, with a huge pool heated by the energy stored in the Earth's crust. Curiously, it is not run by a tourist company, but by KenGen, the national electricity generator. It abuts the Olkaria geothermal power plants, from which plumes of steam pour into the sky. Since 1982 four power stations have opened here; a fifth is being built and work on a sixth will begin soon. Energy harvested from volcanic heat now provides almost half the power Kenya needs.

Electrification has been one of the country's great successes over the past few decades. It is not just new generators; the number of people connected to the power network has also soared. According to the Kenya Power and Lighting Company (KPLC), nearly three-quarters of Kenyans are now connected, up from barely a quarter in 2013. The trend in many African countries has been in the same direction. According to the World Bank, the proportion of Africans with access to electricity increased from 19% in 1991 to 37% in 2014.

Yet this achievement is not quite as impressive as it sounds. More people than ever may be connected to electricity, but they are not using it much. In 2014 each African consumed, on average, just 483 kilowatt hours (kWh). That is less than in the 1980s. Americans, for comparison, used al-

most 13,000kWh each. In Kenya electricity use per person rose by just 10% between 2010 and 2014, even as the number of people connected more than doubled.

Some greens may hail such frugality. They should not: the alternative to electricity is often filthy, dangerous charcoal stoves and kerosene lamps. Besides, if utilities are unable to sell enough electricity to cover their costs then they cannot invest in maintaining or modernising their grids.

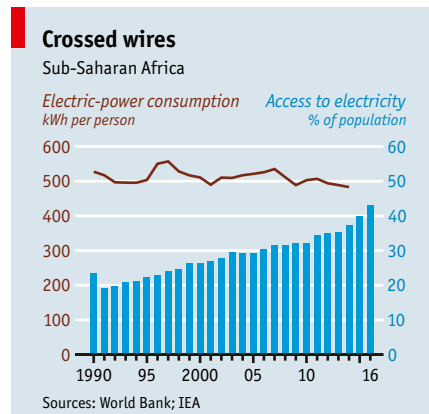
The weakness of demand is, on the face of it, somewhat puzzling. Sub-Saharan Africa, with a billion people, generates less electricity than South Korea. Nigeria, the region's most populous country, produces less than half as much as Romania despite having almost ten times more people. This had long been assumed to be because of

weak supply. All over Africa, rich residents of big cities keep generators fuelled with diesel and large firms build their own power stations alongside new factories. A lack of electricity is widely thought to be one of the main obstacles to economic growth.

Yet producing more power does little if people are unwilling or unable to pay for it. Earlier this year officials at KPLC said that almost 1m customers who are connected to the grid have bought no power at all.

In much of Africa the problem stems from botched regulations and weak states. In Tanzania private firms have invested in gas-fired power plants but Tanesco, the government utility, refuses to pay them for the electricity it distributes. In Nigeria, though the grid is fully privatised, electricity prices are kept artificially low by the regulator. So distribution companies refuse to buy power from the generating companies, complaining that they would make a loss selling it on. And customers rarely pay, since the supply is so erratic. Elsewhere, as in the slums of Nairobi, people connect themselves to the grid through illegal hookups.

Some well-intended policies may also be inadvertently hampering electrification. Among these, says Emma Gordon of Verisk Maplecroft, a British consultancy, is the extension of electricity grids to poor rural areas. Bringing electricity to subsistence farmers certainly improves their lot. But it is not cheap: a single connection in Kenya can cost nearly \$2,500. And since few people in rural areas can afford to buy power-hungry appliances such as fridges or air-conditioners, there is little chance that utilities will make much of a return on their investment. For people in rural areas, off-grid power such as solar panels or small hydroelectric systems may be a better option. Abandoning the attempt to connect them to the grid would mean more money to invest in urban areas. ▶▶



▶ Almost all African utilities “are basically bankrupt”, says Chris Trimble, a researcher for the World Bank who is based in Senegal. And that in turn lowers investment where it is most needed.

Nairobi, for example, has more than enough power. Even so, big firms maintain backup generators to see them through frequent blackouts. The grid’s old transformers explode when it rains. The entire country can lose power if they fail, as happened last year when a monkey climbed onto one. Fish dropped by seagulls onto power stations have been known to plunge Dakar, the capital of Senegal, into darkness.

Worldwide, power consumption is strongly correlated to GDP, but in Africa most countries use less power than their incomes would predict. That is largely because Africa has so little manufacturing and heavy industry. If electrification programmes continue to focus on rural areas, utilities may be too cash-strapped to maintain the grid where it really matters: in cities and industrial regions where investors are building factories. Without industrialisation and good jobs, few Africans will be able to afford much more electricity. That is real powerlessness. ■

Not another fish in the sea

Nets akimbo

TOMBO

West Africa’s fish stocks are falling

ONE evening in Tombo, as fish buyers throng the seafront, an argument erupts at the far end of the harbour. Angry voices waft through the air, as Pa Seaport, the master fisherman of Sierra Leone, tries to solve a heated dispute between local fishermen and a South Korean man. They accuse him of damaging their nets with his trawler, which, they say, was heading to an area where fishing is banned.

This squabble points to a much bigger problem. In Sierra Leone nearly half the population does not have enough to eat, and fish make up most of what little protein people get. But the country’s once-plentiful shoals, combined with its weak government, have lured a flotilla of unscrupulous foreign trawlers to its waters. Most of the trawlers fly Chinese flags, though dozens also sail from South Korea, Italy, Guinea and Russia. Their combined catch is pushing Sierra Leone’s fisheries to the brink of collapse.

Sierra Leone is not alone in facing this crisis. According to the UN’s Food and Agriculture Organisation, 90% of the world’s fisheries are dangerously overexploited. The Africa Centre for Strategic Studies, a

think-tank funded by America’s defence department, reckons that about a quarter of fish caught off Africa’s shores are taken illegally. International observers, who have watched Sierra Leone’s fish stocks falling, are trying to help. In 2010 the World Bank gave money to a project to help the government police its waters. A \$6m boat was built in the Netherlands and sailed to Sierra Leone. But the project was mired in controversy; there were claims that the Dutch shipbuilder, Damen, had paid backhanders to win the order. Last year the World Bank barred it from winning contracts for 18 months, and Dutch authorities are investigating allegations of bribery.

Moreover the boat has been out on only two patrols: the government says it cannot afford the fuel to do more. This leaves it with two inflatable boats donated by Britain and a handful of even smaller boats, none of which is big enough to go far out.

There are scant official data on the state of Sierra Leone’s fish stocks, but local fishermen have their own measure of the problem. Sulaman Kamara, Pa Seaport’s 33-year-old son, has been fishing since he was 16. “The fish are less, they are definitely less,” he says. “And the valuable types are disappearing. We used to get a lot of *bonga* and *kine* [barracuda]. Now they are rare. Sometimes the catch hardly pays for the boat’s petrol.” He blames foreign trawlers, saying they use nets with small holes that sweep up the baby fish.

Pa Seaport’s daughter and Sulaman’s half-sister, Kadiatu Kamara, is a government fisheries officer. She agrees that there are fewer fish, but says it is not just because of the foreign trawlers. She also blames locals who catch the fish as they breed.

Even so, a little boat might catch in a year what a trawler can take in less than two days. As young men like Sulaman pull in ever emptier nets, it seems high time that the government polices its waters. ■



Fish out of water

South Africa

Zuma loses again

JOHANNESBURG

Courts rebuke the president again. Has the ANC had enough?

THE wheels of justice turn slowly, but probably not slowly enough for South Africa’s scandal-plagued president. Jacob Zuma’s court dates have piled up in recent years, along with seemingly endless appeals in what his allies have termed his “Stalingrad strategy” of contesting every judgment, no matter the futility. On December 13th, in the latest damning decision, a high court ordered Mr Zuma to set up a judicial inquiry into allegations of “state capture” against him, his son Duduzane and their friends. A few hours earlier the court ruled in a separate decision that Mr Zuma had abused the judicial process by trying to block an anti-corruption ombudsman, Thuli Madonsela, from releasing a report on state capture in late 2016. It ordered that Mr Zuma must personally pay the legal fees in both cases.

It is not clear whether Mr Zuma will appeal even these, as he did another judgment a week earlier in which the courts fired his appointee as head of the national prosecutors’ office and took away the president’s power to name a replacement. The judges thought that since Mr Zuma faces 783 charges of corruption, he might not be entirely neutral in the matter. Instead they said the task should fall to the deputy president, Cyril Ramaphosa.

Mr Zuma’s lawyers have proved adept at dragging out his defence, but at some point the appeals must end. Mr Zuma now has 30 days to establish the commission into allegations of state capture and the judge in charge of it must be nominated by the respected chief justice, Mogoeng Mogoeng. Even Mr Zuma’s own party, the African National Congress (ANC), recommended in a statement that he heed the rulings “without delay in the interest of our country”.

South Africa’s courts have gained a reputation for fierce independence during Mr Zuma’s eight years as president. Their decisions are increasingly scathing.

Dunstan Mlambo, a senior judge, described Mr Zuma’s attempts to block the state-capture inquiry as “ill-advised and reckless”, and said the president’s conduct “falls far short of the expectation on him as of the head of state to support institutions of democracy”.

Mr Zuma’s continued litigation to hinder the release of Ms Madonsela’s report was “unreasonable”, the decision said. It also raised the possibility of “perjury” related to the president’s excuse for inconsis- ▶▶

tencies in his statements (Mr Zuma had blamed a typing error). In response, the opposition Democratic Alliance (DA) said it would file a criminal complaint for perjury against Mr Zuma (but like the mountain of other such complaints filed by the DA, this is unlikely to go anywhere for now).

Mr Zuma's latest defeats provide even more reasons for his ANC comrades to push him aside when the ruling party meets near Johannesburg to elect new leaders this weekend. Mr Zuma will step down after two terms as party boss (his term as South Africa's president ends in 2019 after a national election). He has backed his ex-wife, Nkosazana Dlamini-Zuma, to succeed him as party leader and its presidential candidate in 2019, perhaps hoping that she will shield him from prosecution. Those who think South Africa has had enough Zumas for now will probably back the frontrunner in this leadership race: Mr Ramaphosa. ■

Vladimir Putin's victory lap

Mission accomplished

CAIRO AND MOSCOW

Russia's actions in the Middle East may be aimed at a domestic audience

EVEN some of Bashar al-Assad's staunchest opponents cringed at the snub. On December 11th Vladimir Putin made a surprise visit to Khmeimim airbase in Syria, from where the Russian air force launched a bombing campaign against Syrian rebels in 2015. Two years later, most of Mr Putin's aims have been achieved: Russia's military bases in the Middle East are secure; Western attempts to isolate Russia have failed; and Mr Assad remains Syria's president, halting what the Kremlin sees as an American-backed wave of regime change. But when Mr Assad tried to join a photo-op, a Russian officer grabbed him by the arm. The base might be on Syrian soil, but it is Russia's turf and Mr Putin would lead the victory lap.

From Syria Mr Putin flew to Egypt for talks with its president, Abdel-Fattah al-Sisi. They agreed to resume flights between their countries, which were cut off after the bombing of a Russian airliner over Sinai in 2015. They also moved forward on a \$21bn deal for Russia to build a nuclear power plant on Egypt's northern coast. In recent weeks they have discussed letting Russian military jets use Egyptian airstrips. Mr Putin ended the day in Turkey, where Recep Tayyip Erdogan, his Turkish counterpart, announced progress on a deal to purchase a Russian air-defence system.

Much of this would have been unthinkable a few years ago. Turkey is a member of

NATO, and Egypt has been a close American ally since the 1970s. But, like many of their neighbours, they are frustrated by the absence of American leadership in the Middle East. Apart from fighting the jihadists of Islamic State, President Donald Trump shows little interest in Syria. So Turkey has pivoted towards the new power in the region. Once a staunch opponent of the Syrian regime, Mr Erdogan now accepts that Mr Assad will remain in power. He is also furious about American support, started under Barack Obama, for Kurdish fighters in Syria, who have ties to militants in his own country. Egypt, always a nettlesome partner for America, knows Russia will not punish it for persecuting dissidents and democrats, as America did in August when it cut some aid.

Lately Russia has even made forays into the Israeli-Palestinian conflict. Though it is part of the peacemaking "quartet", it has been the least-active member. Last year, however, Mr Putin offered to host a round of talks. In Ankara he damned Mr Trump's decision to recognise Jerusalem as Israel's capital. The issue has no strategic importance to him. Russia already has close ties with Israel; the stateless Palestinians offer nothing. But for Mr Putin, it was another chance to indict America.

Mr Putin may have a domestic audience in mind. Russians admire the president's assertive foreign policy. The Middle East has been a central stage for him. But the Syrian war has generated little enthusiasm at home. Most Russians would prefer to see it wrapped up. While in Syria, Mr Putin said he would begin withdrawing troops. The "mission accomplished" moment could be seen as an opening salvo in his campaign for re-election. His victory next spring is not in doubt, but the Kremlin worries that turnout might be low.

With Russia's economy still sputtering, the Middle East also offers a lucrative market. Rosneft, a state-run oil giant, is investing more than \$1bn in infrastructure in Iraqi Kurdistan. The nuclear contract in Egypt is one of several across the region; both Jordan and Turkey have also signed up with Russia to build plants. The Syria campaign was a demonstration of Russian military kit, and perhaps a blueprint for future operations elsewhere. The ruthless deployment of modern air power proved an efficient means of changing facts on the ground. Pseudo-private military companies used as assault forces helped keep Russian casualties out of the public eye.

Yet talk of Russia as the new regional superpower is overblown. For one thing, Syria is hardly a resounding victory: Mr Assad is the enfeebled leader of a ruined country. So far Russia has tried to play all sides, working closely with Iran, while cultivating deeper ties with its arch-rival, Saudi Arabia. These relationships will inevitably come into conflict. Israel, for example,



This is my winning face

is privately seething at Russia's refusal to restrain Iranian militias in Syria. Egypt enjoys over \$1bn in annual aid from America. But if it allows Russian pilots to roam its air bases, it risks losing access to advanced American weapons and intelligence.

Nor is Russia the only state looking to fill the void left by America. Last month Emmanuel Macron, the French president, helped defuse a political crisis in Lebanon, and he took a stand against Mr Trump's Jerusalem decision. Muhammad bin Salman, the Saudi crown prince, is flexing his muscles in Yemen and beyond. Mr Putin's Mediterranean jaunt may help him at home, where he faces no real challengers. But the Middle East is getting crowded. ■

Tunisia's economy

Labour pains

TATAOUINE

Tunisia's Nobel prize-winning trade unions are holding the country back

RESIDENTS of Tataouine, on the edge of the Sahara, think it ought to be a boomtown. The dusty city is close to Tunisia's oil and gas reserves. But firms do most of their recruiting elsewhere and send their profits away. The local unemployment rate is more than twice the national average of 13%. In April job-seeking protesters shut the main oil pipeline and briefly halted work on Nawara, a big gasfield. Youssef Chahed, the prime minister, was booed off the stage at a town-hall meeting. So the Tunisian General Labour Union (UGTT), the country's largest, stepped in to mediate. In June it announced a deal: the state would hire another 3,000 workers from the region.

The concession ended the protests. But it was bad policy. The state oil company is already an inefficient mess. Over the past ►►

▶ decade its production has fallen by 29%, even though its workforce has grown by 14%. Under the agreement, the government urged private oil and gas firms to hire 1,500 locals, but they do not need the workers either. Even Nawara, a project that is expected to increase Tunisia's annual gas production by 25% starting next year, requires only about 200 full-time employees.

The UGTT has played an outsize role in Tunisian politics since it was established in 1946. It participated in the struggle for independence in the 1950s. (French colonialists killed its founder.) The autocrats who ruled Tunisia for the next 54 years occasionally persecuted trade unionists, but the UGTT remained influential, using strikes to win better working conditions. During the Arab spring it helped to organise protests that brought down Zine el-Abidine Ben Ali, the former dictator. In 2013, when new protests threatened Tunisia's nascent democracy, it helped mediate an end to the crisis, which earned it a share of the Nobel peace prize in 2015.

But the UGTT is also at the heart of Tunisia's economic problems. One of the biggest drags on growth is the bloated bureaucracy. Under pressure from the UGTT, the state went on a hiring spree after the revolution, adding tens of thousands of penpushers. Around 800,000 Tunisians now work for the government, out of a workforce of 4m. Public wages eat up almost 14% of GDP, among the highest percentages in the world.

The UGTT has fought against attempts to cut government spending. It calls privatisation a "red line". And it often cripples the country with strikes and protests. Indeed, it called for the anti-government demonstrations in 2013. In 2016 it closed the postal service for days to protest against the treatment of a single worker. Threats of a walk-out last December forced the government to drop plans for a public-sector pay freeze in 2017.

The unions are particularly strong in Tunisia's interior. That has harmed the region. Take Gafsa, the centre of the phosphate industry. Tunisia was once the fifth-largest exporter of the mineral. Over half the country's output came from a state-owned plant in the city. After the revolution, unions called strikes and demanded more jobs. So the plant hired 2,500 new workers over the next three years, increasing the workforce by 51%. But the strikes continued and production fell from 8m tonnes in 2010 to just 3.3m in 2013. The industry has yet to recover.

Union bosses counter that, without protests, the government would continue to neglect the interior—at its own peril. "We've become an exporter of terrorism," says Noureddine Taboubi of the UGTT. Some 6,000 Tunisians joined Islamic State, more than from any other country. Many of them come from the same poor areas

Aharon Yehudah Leib Shteinman

A rabbi without equal

JERUSALEM

The complicated legacy of an ultra-Orthodox leader

HE WAS exceptional in several ways. Brought up in the shtetls of what is now Belarus, Aharon Yehudah Leib Shteinman was the only member of his family to survive the Holocaust. He then devoted his life to building the ultra-Orthodox Jewish community in Israel. Such was his piety that other religious Jews came to regard him as *Gadol Hador*—the greatest of his generation. But he remained exceedingly modest, sleeping on the same mattress for six decades. During the day it would serve as a sofa for anyone wanting his guidance. Parents, ministers and tycoons passed through his damp one-bedroom flat.

"Ten people at my funeral would be enough," wrote Rabbi Shteinman in his will. As it happened, hundreds of thousands of ultra-Orthodox men turned out to mourn their leader, who died on December 12th at the age of 104.

Rabbi Shteinman was one of a small group of rabbis who arrived in the new state of Israel in the early 1950s on a mis-

sion to re-establish the fabled *yeshivas* (Torah academies) of Europe, which were destroyed during the Holocaust. It would not be easy: many of Israel's leaders were born into religious families, but had ditched traditional Judaism in favour of secular Zionism. They saw ultra-Orthodox (or *Haredi*) Judaism as an anachronism that would soon die out. David Ben-Gurion, Israel's first prime minister, allowed 400 *yeshiva* students to be exempt from military service, believing that they would remain a tiny minority.

But Rabbi Shteinman and his colleagues not only rebuilt the *yeshivas*, which had traditionally been the preserve of gifted students, they also encouraged all *Haredi* men to join them and devote their lives to studying the Torah. Many took up their call. Today tens of thousands of *yeshiva* students are exempted from military service, breeding resentment among those who serve.

The cost to taxpayers is enormous. Around 10% of Israel's population are *Haredim*, and half of all *Haredi* men spend their days studying, while depending on state benefits to support their families. "The rabbis led their revolution, but didn't have an end-game planned for its success," says Amiram Gonen of Jerusalem's Hebrew University.

In public Rabbi Shteinman called for life-long devotion to the Torah and forbade secular learning. In private, though, he acknowledged that the ascetic life he led was not for everyone. He discreetly gave his blessing to thousands of *Haredi* men who sought to leave the *yeshivas* and enlist in the army or pursue a secular education and get a job. He faced critics on both sides. Fanatical rabbis accused him of forsaking ultra-Orthodox ideals. Reformists wanted him publicly to endorse vocational training. Sadly, the community he helped to build remains woefully unprepared for the challenges of the 21st century.



The greatest, according to some

that rose up against Mr Ben Ali.

In 2016 the IMF approved a four-year, \$2.9bn loan for Tunisia. But it froze the second tranche in February after the government failed to make reforms, such as eliminating 10,000 public-sector jobs. Instead Lotfi Bensassi, Mr Chahed's economic adviser, is aiming for 4-5% economic growth, so that public wages gobble up just 12% of GDP by 2020. That is still high—and unrealistic. The World Bank thinks growth has been around 2% this year.

The UGTT has shown that it can be pragmatic. One of Tunisia's biggest fiscal problems is the pension system, which has a deficit of 1.1bn dinars (\$440m) 65% higher than just two years ago. Successive governments proposed modest reforms, such as raising the retirement age from 60 to 62. For years the UGTT opposed them. But in October it backed down. "When they are able, they push," says Mr Bensassi. "But they recognise the problems." Tunisia needs them to do that more often. ■



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Catalonia votes

Over and over again

BARCELONA

Much hangs on a Catalan election that may settle little

ON A mild evening this week about 300 people gathered in a park in Cornellà de Llobregat, a suburb in Barcelona's industrial belt, to hear Ines Arrimadas, the young leader of Ciudadanos (Citizens), a centre-right party. She laid into the separatist parties that have governed Catalonia since 2010 and whose declaration of independence in October unleashed a constitutional crisis in Spain. "Their hope is to stop being Spaniards. Ours is to cut hospital waiting lists and have better schools," she said. "We cannot stretch out the independence process any longer."

These promises have brought a surge in support for Ciudadanos. According to the opinion polls, it may win the most votes in a regional election that will take place on December 21st (see chart). In a normal contest it might have a hope of forming a coalition government. But this is the most peculiar election Spain has seen since the 1970s, and not only because it is the fourth one in Catalonia in just seven years.

It was called by Mariano Rajoy, Spain's prime minister, who was granted extraordinary powers under Article 155 of the constitution to suspend Catalan self-government after the regional parliament declared independence. This followed an unconstitutional referendum on October 1st organised by the Catalan government headed by Carles Puigdemont, in which it says 43% voted amid police violence.

Mr Puigdemont is campaigning from Brussels, where he fled after the independence declaration. He faces arrest on charges of rebellion and sedition if he returns to Catalonia. Oriol Junqueras, the leader of Esquerra Republicana (Republican Left), the largest separatist party, is in jail, facing similar charges. In all, eight pro-independence candidates are either in prison or exile. The biggest campaign rally so far was in Brussels, a 20-hour coach journey from Catalonia, where tens of thousands of supporters marched during a long holiday weekend in Spain.

In calling the election Mr Rajoy softened the blow of his suspension of self-government. The government also hoped

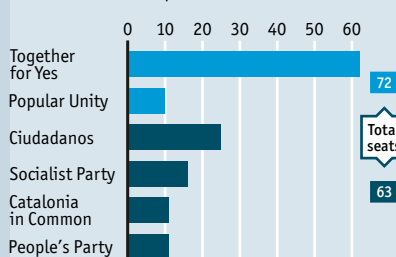
that Catalans and their leaders had "learned a lesson", as one minister puts it, and that the region—and thus Spain as a whole—would return to normality. Contrary to the expectation of the independence movement, no European governments embraced their cause. Political turmoil has hurt the Catalan economy. Since October 1st, almost 3,000 companies have moved their legal domicile elsewhere (see page 56). Retail sales in Catalonia have fallen, while flat elsewhere in Spain. A recent survey of more than 100 Catalan managers by Fernando Trias of ESADE, a business school, found that 46% said their companies had stopped investing and 24% plan lay-offs.

The independence movement has also learned "that the government has Article 155 and can use it whenever it wants, and that justice is going to be tough with them," points out Lluís Orriols, a Catalan political scientist at Madrid's Carlos III University. The "deep state"—the police and security services, judiciary and prosecutors—felt humiliated by the chaotic referendum and has hit back. But some Spaniards think the ▶▶

The rematch

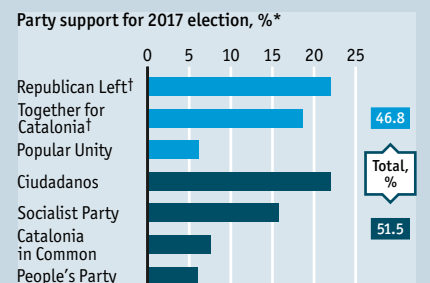
Spain, parliament of Catalonia

Election results 2015, seats



Sources: Parliament of Catalonia; Kiko Llaneras/El País

Party support for 2017 election, %*



*Weighted average of polls from October to December 11th 2017
†Previously part of Together for Yes

charge of rebellion and pre-trial detention smack of overkill by a conservative but independent judiciary. Government officials have hinted that they would prefer to see all candidates free to campaign.

The heavy-handedness of the Spanish state has once again come to Mr Puigdemont's rescue politically. At the start of the campaign, the separatist parties showed signs of moderation. Some of Esquerra's leaders say they would concentrate on governing while leaving independence for the long term. But Mr Puigdemont is rapidly turning the election into a referendum "to restore the legitimate government" dislodged by Article 155. His Catalan Democratic Party is tarnished by allegations of past corruption. Esquerra was poised to outpoll it easily. But Mr Puigdemont chose his own non-party list, and his emotional campaign has closed the gap.

Esquerra is hobbled by Mr Junqueras's imprisonment. "They are suffering a vacuum of leadership while Puigdemont is conducting a presidential campaign," says Oriol Bartomeus, a political scientist at the Autonomous University of Barcelona. Mr Puigdemont might inject further drama by appearing in Catalonia before the vote and getting himself arrested.

According to Mr Bartomeus, an election so soon after the October events has served to harden positions. If the opinion polls are right, only a few voters will desert the independence camp. But Ciudadanos and the other constitutionalist parties hope that some Catalans who are against independence but who used to stay away will vote this time, boosting turnout beyond the 75% who cast ballots in 2015.

Whatever the outcome, Catalonia will see a fragmented parliament in which forming a government will take weeks of haggling and possibly require yet another election. If the polls are right, the separatist block may fall short of the slender majority of seats it obtained in 2015. In that case the Catalan affiliate of Podemos, a left-wing party, may hold the key to a governing coalition. Its leader, Xavier Domènech, says he would not put Mr Puigdemont, nor Ms Arrimadas, in office.

Barring a clear defeat for separatism on December 21st, there are only two ways out of the Catalan quagmire. One is an agreed independence referendum, which is constitutionally difficult, and which Mr Rajoy and Spanish opinion oppose. The other involves wider reforms, which might address Catalan grievances over money and powers; Mr Rajoy has gingerly agreed to examine these issues after the election. But Catalonia's drama is changing Spanish politics. Ciudadanos, which to many has taken on the mantle of Spanish nationalism, is rising in the opinion polls—partly at the expense of Mr Rajoy's conservative People's Party. "It's not going to be easy," admits the minister. ■

France's activist foreign policy

Hop, skip and jump

PARIS

What to make of Emmanuel Macron's frenetic international efforts

HE IS the Duracell Bunny of diplomacy. This month Emmanuel Macron hopped back from a three-day trip to west Africa, then bounded through visits to Algeria and Qatar. In Paris he received Israel's prime minister, Binyamin Netanyahu, to discuss peace prospects for the Middle East. Then the French president hosted a climate jamboree on December 12th, two years after the Paris deal (see page 51). A day later, more summitry: he led a group of "G5" African leaders in talks on fighting terrorists in the Sahel and beyond.

Mr Macron was a relative newcomer to foreign policy when he became president in May, but his appetite for it is large. He says, unapologetically, that France must be "ambitious" in the wider world and become "a great power again". His efforts are at times mostly theatrical, such as when he hosted Donald Trump for Bastille Day celebrations in July. But he talks with a sense of mission, arguing that liberal, democratic European countries are duty-bound to oppose authoritarians and address complex global problems together, even if old allies, notably America under Mr Trump, opt for isolationism.

Such activity appeals to many French voters, after years of national economic decline matched by dwindling international clout. A poll this month suggested that 73% of respondents like the way Mr



Greetings, mortals

Macron represents them abroad, far more than support his efforts to reform the economy at home.

Does his activism amount to something substantial? Other new presidents showed similar rushes of interest in world affairs, before disappointment set in. Nicolas Sarkozy, early in his term, proposed a "union for the Mediterranean" and put himself forward as a Middle Eastern peacemaker. Neither effort bore fruit. He and François Hollande readily used military force, for example in bombing Libya. In Syria, France first opposed the government of Bashar al-Assad, but then failed to act decisively. Mr Macron calls actions in both those countries "cruel failures".

Two elements appear different today. One is context. Mr Macron stands on a remarkably empty field, alone as a Western leader with some diplomatic and military clout who seeks a bigger international role. Britain's preoccupation with Brexit has diminished its influence. German leaders are also distracted and anyway enjoy limited influence beyond Europe. "France is filling a vacuum," says François Heisbourg, a security analyst in Paris.

The second factor is his personality. "He is a talented, charming opportunist, able to size up people and build personal relations," argues Adam Plowright, a presidential biographer. He points to Mr Macron's skilful extraction last month of Saad Hariri from Saudi Arabia, where Lebanon's leader was, in effect, being held captive by his hosts. The intervention let the Saudis save face. Mr Macron may now feel emboldened to try more such mediation.

France has capital to spend, especially in the Middle East, argues Emile Hokayem of the International Institute for Strategic Studies. Mr Macron is vocal, ready to break with old practice (for example in his gambit in offering to visit Iran) and can draw on France's historic ties in the region. But Mr Hokayem warns against exaggerated expectations of the sort that were (briefly) associated with Mr Sarkozy.

After all, France's military might has not increased under Mr Macron. "He can start discussions, but he realises that the Americans have the muscle," says Mr Hokayem. France can help in crisis management or de-escalating problems, as with Mr Hariri, but Mr Macron must ultimately recognise that "what matters is getting Americans on board," he suggests.

Mr Macron's most important role, therefore, is probably as Europe's only leader to enjoy a good relationship with Mr Trump. The two presidents publicly disagree on matters of substance, for example over climate change or America's recognition of Jerusalem as Israel's capital. But they click at a personal level, speaking frequently, bonding over mutual experiences as political outsiders who recently stormed to high office. That should help. ■



Russia

Beware siloviki bearing sausages

MOSCOW

A juicy corruption trial reflects tensions within the Russian elite

LAST November Igor Sechin, the powerful head of Rosneft, the Russian state oil giant, summoned Alexei Ulyukayev, Russia's economy minister, for a meeting. Mr Sechin chastised Mr Ulyukayev for not wearing a coat, for he knew it would be cold where the minister was headed. Mr Ulyukayev left Mr Sechin's office with a heavy briefcase—a gift, he thought, of rare wine. Instead, packed inside was \$2m in cash, and waiting outside were agents with handcuffs. “It was said long ago: send not to know for whom the bell tolls, it tolls for thee,” Mr Ulyukayev declared during his closing statement in court last week, seemingly addressing his peers in power. “I want to say now that the bell could begin tolling for any of you.”

The court's verdict will ring out for Mr Ulyukayev on December 15th. No matter the outcome, the ruling will only fuel tensions within the Russian elite. The case is seen not as a good-faith anti-corruption effort, but the result of clan warfare. Mr Ulyukayev was a stalwart of the government's technocratic bloc; Mr Sechin is a committed statist and a longtime confidant of Vladimir Putin who wields outsize influence among the *siloviki* (former and current members of the security services).

The prosecution alleges that Mr Ulyukayev demanded \$2m from Mr Sechin to approve Rosneft's purchase of Bashneft, a mid-sized oil producer. Mr Ulyukayev had opposed the deal, arguing that Rosneft should not participate in a privatisation ef-

Ukraine's double Christmas

So nice, they celebrate twice

KIEV

Why just one Noël when you can have two?

ADULTS take the adage “Christmas comes but once a year” as an excuse to splurge on gifts. For children, it is a warning of the limits of Utopia. The tots would no doubt be angered to learn that in some places it is not true. This year Ukraine recognised December 25th as an official holiday, along with the traditional Orthodox Christmas on January 7th. It thus became the world's fifth country with two Christmases, joining Belarus, Eritrea, Lebanon and Moldova.

The sources of this yuletide surplus lie deep in history. In 1582 Pope Gregory XIII approved a reform of the Julian calendar, which dated from 45BC. Many European countries quickly switched over, though others took centuries. Russia only adopted the Gregorian calendar in 1918, after the Soviets came to power. But the Russian, Serbian and Georgian Orthodox churches stuck with the Julian one, which now runs 13 days late.

The atheist Soviet Union did not recognise Christmas as a public holiday. But after its collapse, its successor states had to pick a date. Belarus refused to choose: it endorsed two Christmases after independence in 1991. Moldova picked the Orthodox one, but added December 25th in 2013 as part of its tilt towards the EU. Lebanon, where a shaky peace is underpinned by a policy of celebrating everyone's religious holidays, has long recognised the Armenian Christmas on January 6th. In Latvia, several attempts to accommodate the Russian Orthodox minority by recognising January 7th have been voted down. Latvians, like turkeys, don't vote for Christmas.

In mostly Orthodox Ukraine, as in Moldova, recognising December 25th is

part of a westwards turn. But its celebrations are more frugal than in the West. On Christmas Eve, Ukrainians toss straw under the table to recall Christ's manger. The traditional meal, called “poor *kutia*”, consists of 12 meatless dishes (after *kutia*, a porridge with raisins, honey, nuts and seeds). “Rich *kutia*”, with meat dishes, follows on Christmas Day.

Some Ukrainians see no need for a new celebration when most citizens keep the later date. “I don't mind that the [Roman] Catholics celebrate it as they always did, but why should we spend money on that?” asks Evgenia, a pensioner from Kiev. Among Ukrainians under 12, the idea of double Christmas probably polls much better.



Please may I have some more?

fort meant to reduce state participation in the economy. Prosecutors claim that while playing billiards with Mr Sechin during a summit in India, Mr Ulyukayev held up two fingers, a signal meant to indicate the sum he desired. Mr Sechin ignored four summonses to testify.

Mr Ulyukayev and his allies insist that he could never demand a bribe from Mr Sechin, whose political *ves*, or weight, in Russia's Byzantine system far exceeds that of the minister. Mr Ulyukayev calls the case a set-up led by Mr Sechin and Oleg Fekotistov, an FSB general who ran Rosneft's security division at the time. The defence argued that neither money nor a bribe were discussed directly in wiretapped conversations between the men.

The proceedings have provided a unique window onto the inner life of Russian power. Transcripts of bugged calls and conversations have been read aloud in court, revealing details such as Mr Sechin's practice of giving favoured people baskets of sausages, produced from creatures reportedly slain by Mr Sechin himself.

Perhaps the most telling moment came in Mr Ulyukayev's closing statement, when he admitted his guilt—though not of the crime for which he is accused. “I'm guilty of compromising too often, choosing the easy way out, and I all too often put my career and welfare ahead of my principles,” he said. “I got caught up in a senseless bureaucratic ring dance, I received some gifts and I gave them myself too.” ■

Tirana

Europe's new go-to city

TIRANA

Albania's capital is enjoying a renaissance

“UNCLE ERI! Uncle Eri!” shout gaggles of small boys who rush to high-five Erion Veliaj, the 37-year-old boss of Tirana, Albania's capital. He has swung by to inspect a street where tarmac and new sewage pipes have just been laid, and where weeks ago there were potholes and mud. No city in Europe has changed as much in the past 25 years as Tirana. Now Mr Veliaj, who is tipped by some to be a future leader of the country, is changing it again.

In his first two years as mayor Mr Veliaj, a member of the (centre-left) Socialist Party, worked on the city centre. In June he completed work on Skanderbeg Square, the heart of Tirana. Once a busy roundabout, cars have been banished and trees and fountains have replaced them. Plans are even afoot to renovate Tirana's wacky but dilapidated 1980s pyramid.

A quarter of a century ago, Tirana was more capital village than capital city. Under communism it was a backwater of 200,000 people. Until 1991 private cars were banned, there were few shops and virtually no entertainment. Now (partly thanks to boundary changes) it is home to 1m people—more than a third of Albania's population. The city generates half of the country's GDP, says Mr Veliaj.

The fall of communism ushered in a crazed phase of building everywhere, including over Tirana's central park. Edi Rama, now the Socialist prime minister, cleared away many of the centre's illegal buildings when he was mayor. Mr Veliaj has picked up where he left off.

When Mr Veliaj was ten his father died and he was taken to Greece on his uncle's shoulders as they clambered across the mountainous border. Later he studied in America and Britain. He first came to public attention running Mjaft, an activist anti-corruption group which did much to discredit the government of Sali Berisha, who was prime minister from 2005 to 2013.

Now that he is half way through his mandate Mr Veliaj has switched his attention to Tirana's suburbs. Almost all the buildings there were illegal, and services patchy. Some homes and businesses built in parks and on other areas where they should not be are now being demolished; even more are being legalised. For many in the suburbs this is the first time they are coming into contact with the state in 25 years, says Mr Veliaj.

His enemies attack him for not being transparent about how contracts are



Not quite as expected

awarded and for attempting to muzzle unfriendly media, both claims he denies. Asked if he would like to lead Albania in the future, Mr Veliaj coyly says he is thinking only about winning a second term as mayor. Right now he could not be in a better place. Everyone can see the results of his work, and he benefits from not being embroiled in a scandal that broke in October that has damaged Mr Rama and the government. A former minister of interior was accused of collusion with drug smugglers, a claim he denies. Satisfyingly for Mr Veliaj, the former minister, whose career has been destroyed, was his only serious challenger for the eventual future leadership of the Socialist Party. ■

Poland

Debeatified

WARSAW

The prime minister gets the chop

ON DECEMBER 6TH Beata Szydlo, then Poland's prime minister, was the special guest on Radio Maryja, a conservative radio station that is close to the governing Law and Justice (pis) party. Her appearance was overshadowed by something everyone had known for weeks: Mrs Szydlo was on her way out. And indeed by the following evening, she was thanking Poles for her two years in office. On December 11th Mateusz Morawiecki, her deputy, was installed as prime minister. Mrs Szydlo was allowed to stay on; but she is now her former deputy's deputy.

The switch was ordered by Jaroslaw

Kaczynski, pis's reclusive party leader. Despite earlier speculation, the 68-year-old did not take the job for himself—as he had in 2006, during pis's first stint in power. The government is now headed by a more emollient figure: a former banker who also continues to head the ministries of finance and economic development. Mr Morawiecki served in 2010 as an economic adviser to Donald Tusk, who was then prime minister (and is now president of the European Council). pis and its nationalist followers loathe the liberal Mr Tusk. But Mr Morawiecki, who did not join pis until March 2016, has won Mr Kaczynski's trust.

Within pis, Mr Morawiecki is a relative moderate. Yet in his first interview as prime minister-designate, with TV Trwam, Radio Maryja's television counterpart, he called for the “rechristianisation” of Europe. “In many places carols are not sung, churches are empty and are being turned into museums,” he said.

With the spotlight on Mr Morawiecki, pis has pushed on with its overhaul of the judiciary, which it describes as an “extraordinary caste”. On December 8th, after months of deadlock, the lower house of parliament approved modified versions of two laws that had been vetoed by Andrzej Duda, the president, in July. One of them strengthens parliament's, and so pis's, influence over the National Judiciary Council, which appoints judges. The other affects the Supreme Court, which, among other duties, rules on the validity of elections. About 40% of its 80-odd judges will have to stand down. The new law sets a retirement age of 65—but gives the president discretion to retain older judges if he approves of them. The new laws mean that all the courts will be politicised, warns the head of a judges' association.

Worldlier than his predecessor, Mr Morawiecki will try to improve the Polish government's image. Yet patience may be running out. The European Commission, which has challenged the judicial reforms for undermining the independence of the courts, has been awaiting the laws' final wording before deciding how aggressively to pursue infringement proceedings against Warsaw. Commission sources say that if the laws are signed in their current state, the sanctions procedure will immediately be triggered. A decision this week to fine a broadcaster for the way it covered opposition protests also fuels concern.

Halfway through its term, pis remains popular, buoyed by its extravagant welfare policies, especially generous child subsidies. A poll last week puts its support at 41%, far ahead of the two main centrist opposition parties, on a combined 29%. As Poland heads towards local elections next year, followed by parliamentary ones in 2019, pis is emphasising continuity. After all, the country's real boss—Mr Kaczynski—will not be changing any time soon. ■

Charlemagne | Banking on it

Everyone has a euro-zone plan until they get punched in the mouth



IN DARKER times language tends to be blunt. But when Europeans are feeling perky, out come the metaphors. And by that measure, things in the euro zone are looking remarkably bright. With the wind in Europe's sails, it is said, the time has come to clamber through the window of opportunity and fix the roof while the sun shines. Failure will leave the euro exposed when the economic storm clouds gather, or China starts to sneeze.

Three things saved the euro zone from destruction in 2011-12: a €500bn (\$588bn) bail-out fund, the rudiments of a banking union, and Mario Draghi's "whatever it takes" promise—never tested—that the European Central Bank (ECB) would, if needed, unleash a massive programme of bond-buying to protect the currency. Each of these was supposed to be a last resort, as the wildfires of the crisis licked at the bond markets of one country after another. Red lines were crossed, sacred cows slaughtered, rules bent beyond recognition.

Those were desperate measures, necessary when they were enacted. But reform in good times is never easy. As one EU official puts it, when the sun is out you want to go to the beach. Growth in the euro area is up (faster than America), unemployment is down (the lowest since 2009), and businesses and consumers are brimming with cheer. Polls find that Europeans love their currency again. The constant purr of good news has yielded a hashtag, #Euroboom. The tools built to weather the last crisis have proved their worth. The most recent Greek drama, in 2015, barely rippled elsewhere in the euro zone.

Yet no one denies that the euro edifice remains half-built. What better occasion to boost the euro zone's defences? There are plenty of ideas around. Last week the European Commission proposed a package of reforms, including a fund to protect public investment in countries hit by "asymmetric" shocks (like the potential blow to Ireland from Brexit) and money to encourage non-members of the euro, like Bulgaria, to join it. Emmanuel Macron, France's president, has higher ambitions, including a euro-zone budget worth several percentage points of GDP. (The current EU budget is just 1.23%.) The Italians want a common fund for unemployment insurance. But others take a different tack. The German finance ministry wants to turn the European Stability Mechanism, the euro's bail-out fund, into a super-policeman to

monitor fiscal miscreants, and to protect European taxpayers from paying for further bail-outs.

After years of crisis summits and monetary experiments, the euro zone's hawks are not in the mood for concessions. They feel they have done their part; time for weaker governments to pull themselves together by cutting debt and reforming their labour and product markets. And with the recovery in full swing, why rush? Domestic politics do not help. Germany may not have a government until next spring, and the Dutch coalition enjoys a parliamentary majority of one.

Officials elsewhere have answers to these questions. France spies a contradiction in the German position. It cannot decry quantitative easing while remaining so hostile to spending, especially when deficits are low across the euro area. (Mr Draghi often calls on those governments with fiscal room to use it, lightening the burden on the ECB.) Brussels thinks it can entice Germany to move by promising a carefully phased reduction in risk on the balance-sheets of banks elsewhere. To countries that have failed to use the time Mr Draghi's bond-buying has bought them, the commission will argue that structural reforms are more effective in good times than bad.

These strands will coalesce on December 15th, when the euro zone's leaders gather in Brussels for their first summit in over two years. To avoid rows, Donald Tusk, who chairs the event, wants to focus four-square on completing the zone's banking union, which still lacks a common backstop fund to wind up troubled lenders and a shared deposit-insurance scheme. Euro-zone members are also edging towards consensus on converting the ESM into a beefier organisation that can, among other things, obviate the need to involve the IMF in future bail-outs.

None of this will be at all easy. The Germans and Dutch will stridently resist proposals that hint at a potential call on their taxpayers. In some countries banks are still weighed down with their own governments' bonds, a reminder of the "doom-loop" that proved so damaging a few years ago. Non-performing loans still trouble the balance-sheets of banks across the southern belt, although economic growth is now reducing that burden. Mr Tusk hopes that a deal will be struck next June. German officials do not share his optimism.

The art of the possible

What of Mr Macron's grand schemes for a euro-zone finance minister and a whopping investment budget? What about the euro's rococo fiscal rule-book, which judges governments' budgets according to phantom "structural deficit" projections that no one understands and is apparently reinvented, as one official sighs, every time Italy has an earthquake? Few think such questions can be postponed for ever. But nor do they have the appetite to take them on when it will be hard enough merely to sort out the financial plumbing. Moreover, good intentions get you only so far. Every Eurocrat has a shelf full of dusty plans to reinvent the euro area. Few survive contact with reality.

Lowered ambitions may be no bad thing. Europe's political bandwidth is limited. Difficult debates lie ahead on asylum policy, defence, personnel and the EU budget. An awkward Italian election will be held in the spring, Poland's government is undermining the rule of law and the spectre of Brexit is looming. The EU must choose its battles. Becoming involved in a fruitlessly divisive one will distract from the others—and risks raising expectations that cannot be satisfied. ■



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Bagehot is on holiday

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The housing market

Struggles of the landed gentry

An unprecedented boom in “buy-to-let” investment is coming to an end

NICKNAMED “God” by his fans, Robbie Fowler scored 183 goals for Liverpool Football Club. But his career as a property magnate may have been even more successful. As he banged in the goals, fans chanted, to the tune of “Yellow Submarine”, “We all live in a Robbie Fowler house.” Mr Fowler has since hung up his boots and is now the face of the Robbie Fowler Property Academy, which offers seminars on how to make it big in housing. With what is believed to be a portfolio of over 50 properties, his fortune may run into the tens of millions of pounds.

Plenty of Britons want to emulate Mr Fowler. In the past two decades they have piled into the “buy-to-let” market, acquiring homes to rent out. These days one in 30 adults—and around one in four MPs—is a landlord. Roughly a third of them are retired, many having turned to the housing market as the returns on their savings dwindled. The rent from buy-to-let properties, which we estimate at £55bn-65bn (\$73bn-87bn) a year, is equivalent to the salary bill for the financial and insurance industries, in which over 1m people work.

The buy-to-let phenomenon got going in 1996, with the introduction of mortgages which no longer required the borrower to live in the house they were buying, says Lawrence Bowles of Savills, a property firm. The years since then have seen frenzied growth (see chart). Investing in the

housing market has seemed like a one-way bet, with prices trending upwards in real terms for four decades, mainly because government after government has failed to loosen planning restrictions on building new houses. Now, however, there are signs that regulatory changes have begun to send the buy-to-let boom into reverse. That is bad news for Mr Fowler’s disciples, but there could be benefits, too.

The growth of the rental market is not in itself an unwelcome trend. As the supply of places to let rises, the cost of renting falls. Though many tenants may prefer to own their home, others like the flexibility of renting. If workers can up sticks easily, they are likelier to find work that suits their

skills. That is good for productivity growth.

Yet the buy-to-let boom also has its downsides. Like the gentry of old, Britain’s new class of landlords is often amateurish. Most operate on a very small scale: six in ten have just one property. And many seem to manage their houses poorly. Almost 30% of private-rented dwellings are officially classed as “non-decent”, meaning that they fail to meet basic standards for things such as heating or their state of repair. (By contrast, 15% of council housing is in such a condition.)

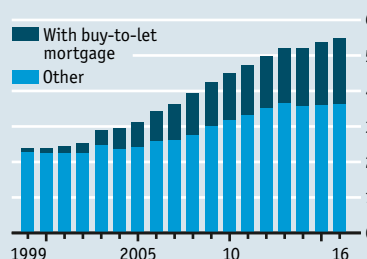
Young folk who would prefer to own a house than pay rent to their elders complain that the buy-to-let boom is one of the great injustices of modern Britain. The Conservative Party is worried. Over half of private renters voted for Jeremy Corbyn’s Labour Party at the general election in June, a higher share of private renters than voted for Tony Blair when he won by a landslide in 1997.

Life has lately become harder for landlords. In 2016 the government raised stamp duty, a tax on homebuyers, by three percentage points for those buying second homes, including buy-to-let properties. It abolished a generous “wear and tear” allowance for those letting furnished properties, and in April began tightening the rules on how landlords write off interest costs against income tax. These changes are enough to turn healthy annual profits into losses, especially for investors in higher tax brackets and with large mortgages.

Meanwhile, yields on rental properties have fallen. House prices have risen faster than rents, in part because buy-to-letters have increased the demand for properties available for purchase, while simultaneously increasing the supply of places to rent. Britain’s ratio of house prices to rents is now 50% above its long-run average. All ►►

Piling in

Britain, number of dwellings in private-rented sector, m



Sources: HM Government; CML; HM Treasury; DCLG; *The Economist*

▶ this makes buy-to-let investment less lucrative. Data from the Bank of England suggest that yields in September were below 5%, their joint-lowest rate since records began in 2001, when they were above 7.5%.

At a recent seminar of the Robbie Fowler Property Academy in a nondescript hotel in London, the mood remained upbeat. Mr Fowler claims in a promotional video that, "It doesn't matter what state the market's in—there's always money to be made." Yet few are so optimistic. In the third quarter of 2017, new buy-to-let lending for house purchases was around 15% below the average of the past five years. Research from Savills suggests that, for the first time, landlords may be selling up in

large numbers.

One consequence could be a more stable financial system. Roughly 15% of mortgage debt is on buy-to-let properties. The Bank of England has warned of risks associated with this. Property investors buy when prices are rising but sell when they are falling, making house prices more volatile. Buy-to-let landlords are also more likely to default than owner-occupiers. One reason is that doing so does not force them out of their home. Another is that buy-to-let mortgages are more likely to be interest-only (ie, where the principal is not repaid), which means that monthly repayments can go up sharply if interest rates rise. The Bank of England's stress tests last month

showed that the rate at which landlords' loans turn sour could be four times greater than the rate for owner-occupiers. All things considered, a smaller buy-to-let sector may come as a relief to regulators.

It might also cheer up would-be homeowners. Buy-to-letters sometimes compete with first-time buyers for property—and they often win, since they tend to have bigger incomes. Lately the buy-to-let boom has been correlated with galloping house prices, which have made it harder for youngsters to get a foot on the housing ladder. One study suggested that more than ten percentage points of the 150% rise in real house prices between 1996 and 2007 was caused by increased lending to landlords. As the buy-to-let market has turned, house-price growth has weakened. In July to September the number of mortgages granted to first-time buyers hit its highest level since 2007.

The future for buy-to-letters will not get much brighter. In January a tweak to the rules on taxing capital gains will increase the liabilities of landlords who register as businesses. Institutional investors are moving on to buy-to-letters' turf, hoping to benefit from their economies of scale to offer better housing to tenants. It was good while it lasted, but the golden age of the amateur landlord may be over. ■

The economics of crime

Lucrative loot

Thieves are striking less often, but their hauls are getting bigger

LATE at night, two hooded men lurk in a driveway in Solihull. One hovers near a parked Mercedes-Benz, as the other stands by the front door, waving around what looks like an iPad. He is trying to pick up a signal that the car's fob emits from inside the house. That is then pinged to the other crook, who uses it to unlock the driver's door and start the engine. The CCTV footage of this "relay crime", released by West Midlands Police in November, lasts about a minute. That is all the time the thieves needed.

Crime has been declining in most rich countries since the 1990s. Many explanations have been put forward, from ageing societies to better policing. But it seems that over the past decade or so, as theft in Britain has become less common, it has also become more lucrative (see chart).

One possibility is that the average thief has become more skilled, says Siddhartha Bandyopadhyay, an economist at the University of Birmingham. As crimes become harder to pull off, the least competent robbers drop out of the market. Those who lack the expertise to steal a modern car, say, may branch out into other ruses, like credit-card fraud.

And crooks respond to the changing value of goods, says Mirko Draca of the University of Warwick. With colleagues at the University of Glasgow and the London School of Economics, he examined the effect of price changes on items stolen in London in 2002-12. They found that, on average, a 10% increase in the price of a good is associated with a 3.5% rise in the likelihood of it being stolen.

Such price sensitivity is reflected in what gets filched. In 2008 jewellery or watches were pinched in about a quarter of burglaries. Now that figure is around a

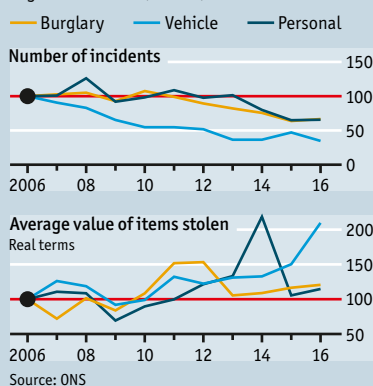
third. This may be linked to the higher price of gold, which, though below its 2011 peak, is still over 40% more valuable than in 2008. CDs and DVDs, which these days even charity shops struggle to shift, are now stolen in only 3% of burglaries.

Similarly, in 2013 smartphones were stolen in 51% of robberies, up from 28% in 2009. But as manufacturers caught on and introduced security measures such as "kill switches", the resale price of stolen phones plummeted, and pick-pockets were forced to pinch other items.

Not all advances in technology hinder the crooks. Some use Google Street View to scope out posh properties, and track their residents on social media. Relay crimes have been a boon for car thieves. But these heists may soon be scuppered by low-tech security measures. Disklok, which makes old-fashioned steering-wheel locks, says its sales have doubled in the past year. Crooks may want to pack an angle grinder along with the iPad.

Richer pickings

England and Wales, thefts, 2006=100



Tory Brexiteers

The dogs that didn't bark

Despite big concessions to Brussels, Tory Brexiteers stay quiet. Why?

IT HAS been an up and down week for Theresa May. On December 11th the prime minister basked as pro- and anti-Brexit Tories alike cheered the deal that she had secured on the first phase of Britain's Article 50 divorce from the European Union. But two days later, as she prepared to head back to Brussels to get an EU summit to approve the deal, Mrs May suffered her first big parliamentary defeat, when 11 of her own MPs joined the opposition to amend the EU withdrawal bill.

Mrs May deserved praise for pushing the Article 50 process forward. Yet it is surprising that Brexiteers were so loud in their approval of the deal. Mrs May has blurred many of their red lines. She accepted a bigger exit bill than they originally envisaged. The agreement on the future rights of EU citizens in Britain gives the European Court of Justice (ECJ) a say for eight years after Brexit. The agreement to avoid a hard border in Ireland implies full alignment with most single market rules. And Brussels insists that transition entails accepting all EU ▶▶

▶ laws plus the ECJ.

So why are Brexiteers so quiet? One answer is that their goal is simply to get to the Brexit date of March 29th 2019. They worry that a souring economy or more parliamentary upsets could change the mood. After Mrs May's defeat the *Daily Mail* accused the 11 rebel MPs of "pulling the rug from under our EU negotiators". That is an exaggeration: though their amendment gives MPs a vote on the final Brexit deal, if Parliament rejects it Britain may leave with no deal at all. Still, fears that the project might yet be reversed are keeping Brexiteers mum, no matter how many concessions Mrs May makes.

The second is the belief that, once Brexit happens, all else is possible. David Davis, the Brexit secretary, even suggested the Article 50 agreement could be torn up if a future trade deal were unsatisfactory, because "nothing is agreed until everything is agreed". Michael Gove, the environment secretary, claimed voters could change anything they disliked about Brexit in future elections. Such comments led the EU to toughen its negotiating guidelines to insist on the legal force of the Article 50 deal.

Brexiteers still seem to believe that a bespoke deep free-trade deal with the EU will be easy to negotiate. Mr Davis spoke this week of "Canada plus-plus-plus". Liam Fox, the international-trade secretary, talked of a deal that is "virtually identical" to today's. In this hope, at least, they seem deluded. EU negotiators are clear that, if Britain leaves the single market and customs union, it cannot expect a free-trade deal much better than Canada's, which covers almost all goods but barely any services. Services make up 70% of Britain's economy and 40% of its exports.

As for the Irish border, Mr Davis claims that full alignment with single-market rules is just a fallback if there is no broader free-trade deal, adding that it would concern only those rules relating to the Good Friday Agreement and the all-island economy, and that it would allow Britain to decide its own regulations so long as they were mutually recognised. Yet Ireland and the EU believe the deal means what it says: full alignment with almost all single-market rules. The European Commission goes further, saying that it cannot see how a hard border can be avoided if Britain is outside the single market and customs union. Even a few Brexiteers see the point. Martin Howe, a pro-Brexit trade lawyer, complains that the phase-one deal could stop Britain securing trade deals elsewhere and turn it into a "vassal state".

In short, the phase-one deal, especially the Irish fix, points to a softer Brexit that keeps Britain closely aligned with the single market. That implies an outcome closer to Norway than Canada. As this becomes evident, Mrs May can expect to hear a lot more noise from her Brexiteers. ■

Grenfell Tower

Do they know it's Christmas?

More than 100 households who survived the fire are still living in hotels

ONLY recently has Zahra Rasoul started waking up in the night yelling, "Fire! Fire!" The two-year-old survived the devastating fire in Grenfell Tower that killed 71 residents on June 14th, but the full trauma of that event, says her father Mohammed, may now be surfacing. Living on the fifth floor, Zahra and her five-year-old brother watched as the fire, which started on the floor below them, swiftly moved up to engulf the whole building.

The family's recovery has not been helped by the fact that, six months on, they are still living in a hotel, some distance away from their old community in north Kensington. Mr Rasoul was born in the tower 36 years ago. Now, confined to two bedrooms with his children, his wife and his 86-year-old father (who he believes is the oldest survivor of the fire), Mr Rasoul says that being cooped up is "breaking us down gradually. There is tension building within ourselves."

There are about 105 Grenfell households in the same predicament. That so many are still waiting for a permanent home is testimony to how badly relations between the survivors and the authorities have broken down. Grenfell United, the main survivors' organisation, remains so angry about how the Royal Borough of Kensington and Chelsea (RBKC) has handled the fire that it was made clear to councillors that they would not be welcome at a memorial service for the victims in St Paul's Cathedral on December 14th.

The row over housing is a case in point. The council says that all survivors have been offered temporary accommodation. It has set aside £235m (\$314m) to buy hundreds of homes to offer a choice of permanent housing to the 210 Grenfell households still in need; 45 households have already moved in. Families have been assigned their own housing officers.

Mr Rasoul concedes that he has been offered temporary accommodation instead of his hotel, but says it was not suitable. He fears also that the council would just leave him there. "I know a bloke who has been in temporary accommodation for 17 years," he says.

This deep distrust is a legacy of the council's initially shambolic and uncoordinated response to the disaster. Survivors feel that their needs were not taken sufficiently into account when the council bought the new houses, and that they still do not get a sympathetic hearing from the bureaucrats. One, Bellal El Guenni, says that survivors are still trying to teach council officials "how to be human". Anger flared after a meeting on December 5th, when one councillor was spotted using his mobile phone, before nodding off as survivors opened up about their horrific experiences. Maxine Holdsworth, who was brought in from another borough in July to take charge of housing at RBKC, acknowledges that the council has to do a "huge amount" of work to regain people's trust.

At least the survivors had something to cheer when the procedural hearings of the public inquiry into the disaster got under way on December 11th. Grenfell United's members want people to be held to account for the loss of their friends and families. And even if Mr Rasoul feels badly let down by those in authority, he is still buoyed by the "amazing" public support. Often, he says, he has been moved to tears by "the beauty of people's kindness". ■



A child's hope



Climate summitry

New life for the Paris deal

PARIS

A flurry of meetings should help curb greenhouse-gas emissions. But the global agreement is still essential

IN MAY France's environment ministry moved to an 18th-century mansion close to the National Assembly and Elysée Palace. The relocation—and a pretentious new name, the Ministry for Ecological and Inclusive Transition—hint at Emmanuel Macron's desire to be seen as a global leader in the fight against climate change.

Since his election to the French presidency seven months ago, green activists have placed their hopes in Mr Macron as a bulwark against his carbon-cuddling American counterpart, Donald Trump. They came to Paris in force for a One Planet Summit on December 12th, at which Mr Macron hosted more than 50 world leaders to celebrate the anniversary of the UN climate compact agreed in the French capital in 2015. Mr Trump, who decided in June to pull America out of that deal, was not on the invitation list.

Mr Macron launched a campaign to attract American green technologists and climate scientists to move to France. Another six countries joined a coalition led by Britain committed to phasing out coal, bringing the total to 26. The market value of

companies agreeing to follow recent recommendations on climate-related financial disclosures from a task force set up by the Financial Stability Board, an international watchdog, reached \$6.3trn. The World Bank said it would stop funding oil and gas exploration in two years. The European Union pledged €9bn (\$11bn) to help poor countries fight climate change. The Bill and Melinda Gates Foundation, the world's largest charity, said it would match the €270m the EU has promised for research to help poor farmers in Africa and Asia adjust to global warming.

The flurry of announcements, and the pomp, were intended to breathe new life into the Paris deal. America's planned departure did not strike it a mortal blow, as some greens feared it would. It may even have nudged the last two holdouts, Nicaragua and Syria, to sign up in November. But the pledges made so far are inadequate, and many are conditional on other countries keeping their side of the bargain. Fresh momentum is sorely needed.

The Paris agreement committed signatories to do what is necessary to keep glo-

bal warming "well below" 2°C compared with pre-industrial times by 2100, and preferably closer to 1.5°C. Most scientists agree that if the increase is more than 2°C, there is a serious risk of catastrophically higher sea levels and more floods, superstorms and wildfires like those that have afflicted places from Kolkata to the Caribbean to California this year. Greenhouse gases released by humanity have already warmed Earth by 1°C or so since the 1870s. Because planet-cooking carbon dioxide lingers in the atmosphere for thousands of years, stabilising emissions will not suffice to hit that target. Emissions must fall, and quickly (even into negative territory: carbon dioxide will need to be scrubbed from the air somehow). Instead, they are expected to edge up by 2% in 2017, after three years of near-stability.

This year's "Emissions Gap" report from the UN, published in October, shows that the first set of climate pledges submitted by 164 countries corresponds to barely a third of the cut in emissions needed to keep warming below 2°C (see chart on next page). Studies suggest that these "nationally determined contributions" (NDCs) would probably result in temperatures 2.9-3.4°C higher than in pre-industrial times—and that only if they are fully implemented, which seems unlikely.

Mr Trump has said that America, the world's second-largest greenhouse-gas emitter behind China, will not honour the NDCs submitted by his predecessor, Barack Obama. Nor will it pay into the UN's Green Climate Fund, set up in 2010 with the intention of transferring \$100bn a year by 2020 to poor countries. Commitments to date put the figure closer to \$70bn. And most poor countries have made their Paris pledges conditional on rich countries helping them pay to adopt cleaner energy and adapt to a changing climate.

Some summitry

Mr Macron's jamboree is one in a year-long series of climate get-togethers, some of them initiatives by green-minded politicians and some of them part of the Paris deal. In November the Conference of the Parties (COP) to the UN climate convention, under which the Paris agreement was forged, descended on Bonn for its annual pow-wow. Earlier this month city leaders from America and elsewhere met in Chicago, invited by the Democratic mayor, Rahm Emanuel, to discuss how cities can fight climate change. California's Democratic governor, Jerry Brown, is planning a similar, larger extravaganza in September in San Francisco. Three months after that it will be time for the next annual COP, which is due to be held in Poland.

All this summitry provides an opportunity for politicians and philanthropists to make further commitments. It also puts pressure on laggards and reminds the pub- ▶▶

lic of a problem that is unfolding so slowly that is easy to ignore. But unless political leaders like Messrs Macron, Emanuel and Brown redouble their efforts, the prospect of keeping global warming to under 2°C looks poor.

In order to get as many countries as possible on board, the Paris agreement set an ambitious goal but remained studiously vague about how it was to be reached. By next year the signatories are supposed to have fleshed out precisely how to calculate, review and ratchet up their nationally determined contributions. Reaching consensus on what counts as a reduction in emissions, and who should monitor progress, will be delicate, admits Patricia Espinosa, the head of the UN climate secretariat. In Bonn, striking a tentative agreement on something as basic as deciding what to discuss during the coming year counted as a coup.

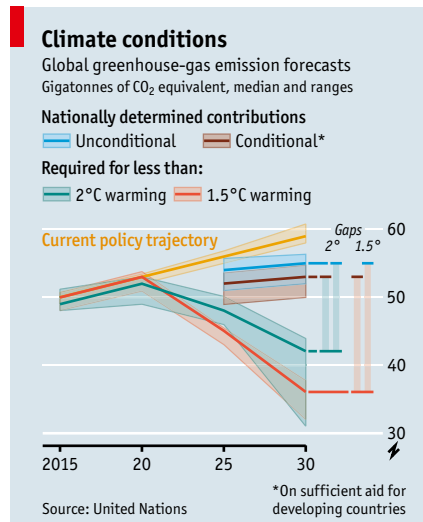
It is unfortunate that the rotating presidency of COP means that the task of shepherding through the final document falls to Poland. Unlike the French organisers of the Paris COP two years ago, Poland's populist Law and Justice government lacks diplomatic nous and credibility on environmental issues. Jan Szyszko, the environment minister, who is to chair the proceedings, has questioned humanity's role in global warming and shares Mr Trump's fondness for coal. The host city of Katowice lies in the heart of Polish coal country. Mr Brown's take, that "Poland is not exactly a hotbed of climate activism," understates the problem.

Poles apart

Nazhat Khan, the climate envoy from Fiji, which is to pass the presidency of COP to the Poles on the eve of the summit in Katowice, nevertheless believes that agreement can be reached there. The presidency's role is not central to the COP process, she says. Officials in Bonn said they doubted that the Poles would sabotage the talks, for fear of global opprobrium. But these reassurances are too lukewarm to be truly comforting. Christiana Figueres, Ms Espinosa's predecessor and now a climate campaigner, says she is nervous.

The longer-term outlook is also worrying. For all Mr Macron's vim, France has yet to prove it can be as combative as America used to be, complementing the EU's more conciliatory tactics, says Durwood Zaelke of the Institute for Governance and Sustainable Development, a think-tank in Washington. Nor has China, which has seized the rhetorical high ground vacated by America, matched its fine words with actions.

In his big speech to the five-yearly Communist Party congress in October, the country's president, Xi Jinping, spoke of China as a "torch-bearer" and "in the driving seat" as far as environmental matters



were concerned. That suggests he intends China to become a global leader on the issue. But "the Chinese are still working out what this means," says Thomas Hale of Oxford University. Although China's long-standing policy of not meddling in other countries' business is only selectively adhered to, it probably does not intend to lecture others on the importance of upgrading their national pledges. Even "torch-bearing", which sounds like China means to set an example with domestic policies such as switching from coal to renewables for generating electricity, may not amount to all that much in practice (see page 27). This week in Paris Ma Kai, China's vice-premier, insisted that a long-awaited emissions-trading scheme will be unveiled before January. But the plans have reportedly been scaled back, and now exclude entire industries.

Just as well, then, that America's retreat seems as half-hearted as China's charge. For all Mr Trump's hostility to environmentalism, Ms Khan says she spied "no appreciable difference" between the size and



behaviour of previous American delegations and the one Mr Trump sent to Bonn. America has often been more involved in global greenery than political rhetoric would suggest, says John Vogler of Keele University. The country's departure from the Kyoto protocol, the Paris agreement's ill-fated predecessor, under George W. Bush did not stop Americans from attending UN climate events. The country sends officials to meetings of the UN convention on biodiversity, which it has never ratified. And it is still formally bound by Mr Obama's signature on the Paris deal. Indeed, its withdrawal does not take effect until two days after the next presidential election—and if Mr Trump is not re-elected, his successor might decide to stay.

Even if America does leave under the next administration, a parallel presence is likely to continue. Delegates in Bonn were treated to the curious spectacle of a second American delegation, as brash as the official one was low-key. It pitched a gigantic tent outside the UN compound, luring passers-by with free food and hosting talks by notable American greens including Mr Brown, Al Gore and Michael Bloomberg, a former Republican mayor of New York who now heads the financial-disclosure task force. The Fijian prime minister, who presided over the official programme, stopped by. Ms Espinosa said that if the State Department reneged on its duty to report America's greenhouse-gas emissions to the UN, she would accept an inventory compiled and paid for by "America's pledge", a philanthropic effort led by Mr Brown and Mr Bloomberg.

The pair also dined with Mr Macron and touted the importance of climate initiatives by cities, states and businesses. Thanks to such actions, Mr Bloomberg enthuses, America is already halfway towards meeting its Paris pledge—even though that pledge has formally been abandoned. Mr Obama had promised to slash emissions by 26-28% from 2005 levels by 2025. Firms and investors increasingly understand that curbing climate change is in their long-term interests, he says. Polls in many countries show that a majority of citizens agree.

Don't forget Paris

But for all the importance of subnational green efforts, the UN climate process is still essential. It is the only mechanism available for chivvying stragglers to do more. And if global warming is to be kept within reasonable bounds, action will be needed not just by the most committed, but also from those currently doing little or nothing. The Paris deal's voluntary, flexible nature means that it is national pledges, backed by legislation, that collectively add up to global climate governance. Mr Macron's summit can be judged a success if it reminds the world of this fact. ■

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The Big Four Custodians of capitalism

WASHINGTON, DC

The audit industry has improved. But further progress is not assured

THE collapses of Enron and WorldCom in the early years of this century turned book-cooking into front-page news. Investors lost over \$200bn; in 2002 the stock-market fell by over a fifth between April and July. In response, America's Sarbanes-Oxley Act set up a new body, the Public Company Accounting Oversight Board (PCAOB), to supervise auditors.

Its quest to give auditors more teeth continues, with the introduction of new rules that James Doty, its outgoing chairman, bills as the most significant changes to reporting by auditors in over 70 years. The question now is whether Mr Doty's successor, who was announced by the Securities and Exchange Commission (SEC) on December 12th along with four new PCAOB board members, will keep heading in the same direction.

New disclosures on auditors' tenure and independence take effect this week. And from 2019 auditors must go above and beyond the low bar they have historically set themselves, which is a pass or fail "opinion" on whether financial statements obey accounting rules. They will have to explain "critical audit matters", meaning occasions when they had to confront company management. Many big firms loathe these changes, warning that investors will be swamped by minutiae. Their real fear may be a loss of control over the flow of information to investors.

The rules are meant to mitigate the

incentive problems that have long riddled the profession, which is dominated by the Big Four partnerships—Deloitte, EY, KPMG and PwC. To foster investor trust, listed firms must engage external auditors. But companies pay them, not investors, which may dampen the motivation to scrutinise.

In the West, stronger oversight does appear to have coincided with better quality. Accounting scandals are far from consigned to history's ash heap. In America last year, for example, PwC settled a \$5.5bn lawsuit alleging negligence when it gave Colonial Bank a clean bill of health in the years before the lender's collapse in 2009; the bank turned out to have made loans against assets that did not even exist. Yet both the frequency and the severity of ac-

counting restatements have fallen over time in America (see chart), and inspectors are finding fewer audit deficiencies. In Britain, where auditors have been required to discuss contentious bits of the audit for some years already, 81% of FTSE 350 audits inspected by regulators in 2016 either met their standards or had only minor problems, up from 56% five years before.

But two big weaknesses in the audit industry remain. First, at a global level, quality is still relatively low. A survey of 36 countries last year by the International Forum of Independent Audit Regulators found that an "unacceptably high" 42% of 855 audits did not meet inspectors' standards. All of the Big Four have been caught up in scandals in recent years, particularly in emerging markets.

American regulators can lift standards. The PCAOB inspects audits for all firms listed in America, regardless of the auditor's location (though China refuses its inspectors access). More of its sanctions have been taken against foreign firms, including affiliates of the Big Four. In its severest punishment ever, it fined Deloitte in Brazil \$8m last year for doctoring paperwork and hiding evidence from inspectors.

Senior executives at the Big Four admit to embarrassment about violations abroad. But because most country firms are legally distinct affiliates, they have been able to avoid broad reputational damage. And the worry is that neither companies nor regulators can afford to discipline auditors harshly for their failings because of the second big flaw: limited competition. The Big Four dominate audit for large listed companies, scrutinising the accounts of 99% of those on the S&P 500 and the FTSE 100. Companies' choices are even more limited because conflict-of-interest rules forbid the same firms from selling consulting and audit services. Over 85% ▶▶



▶ of S&P 500 companies have been audited by the same firm for over ten years, according to Audit Analytics, a data provider. Such coziness jeopardises objectivity.

How this should be addressed, if at all, is unclear. Mr Doty reckons independence of auditors must be the priority; if that is assured, a lack of competition, in itself, is less worrisome. In any case, the PCAOB has little scope to act, since the House of Representatives voted in 2013 to ban mandatory auditor rotation. In contrast, European regulators now require firms that have used the same auditor for ten years to put their contract out to tender. Nevertheless, the four remain dominant.

That concentration worries some. What happens if another scandal were to sink one of the firms, turning the Big Four into the Titanic Three? European regulators are now monitoring risks to audit firms; in Britain, audit-firm boards must include independent non-executive directors. Steven Harris, an outgoing PCAOB board member who helped to draft Sarbanes-Oxley, would like to see similar rules in America.

That seems unlikely, because of a new risk to audit quality: a possible relaxation of American policy. Many bosses hope for looser rules. That would fit with the Trump administration's deregulation agenda. Although Sarbanes-Oxley has not ranked highly on the list of rule books to be burned, Mr Doty's successor, William Duhnke, a former Republican Senate aide, is thought to favour deregulation. Two of the four other new board members are former Big Four auditors. Reassuringly, the SEC's chair, Jay Clayton, has said he is not looking for radical change. He would be wise to consider how much progress has been made since the dark days of Enron and WorldCom before consigning audit regulation to the flames. ■

South Africa's Steinhoff

Broken furniture

JOHANNESBURG

An accounting scandal sends a high-flying retail chain plummeting

THE scale is staggering, even by the standards of scandal-worn South Africa. Steinhoff, a retailer that is one of the country's best-known companies, admitted to "accounting irregularities" on December 6th when it was due to publish year-end financial statements. Its chief executive, Markus Jooste, resigned, and the firm announced an internal investigation by PwC. Within days Steinhoff had lost €10.7bn (\$12.7bn) in market value as its share price fell by more than 80% (see chart). Much is unclear, but it is shaping up to be the big-



Steinhoff goes on special offer

gest corporate scandal that South Africa has ever seen. The company has said it is reviewing the "validity and recoverability" of €6bn in non-South African assets.

Steinhoff traces its roots to West Germany, where it found a niche sourcing cheap furniture from the communist-ruled east. The company merged with a South African firm in 1998 and is based in Stellenbosch, near Cape Town—a Winelands town that is home to some of the wealthiest Afrikaner businessmen. It recently pursued a debt-fuelled expansion, buying furniture and homeware chains, from Conforama in France and Mattress Firm in America to Poundland in Britain, becoming Europe's second-largest furniture retailer after IKEA. It has 130,000 employees at 12,000 outlets in over 30 countries.

Between June 2014 and September 2016 Steinhoff expanded its assets by 145% as its acquisition spree intensified. This splurge added to its financial complexity and might have helped it to hide bad news. A recent report by Viceroy Research, which hunts for stocks to sell short, or bet against, accuses Steinhoff of using off-balance-sheet vehicles to inflate profits and mask losses. Viceroy's analysts concluded that these vehicles were controlled by associates and former executives of Steinhoff, and that they engaged in transactions with Steinhoff that the firm failed to disclose.

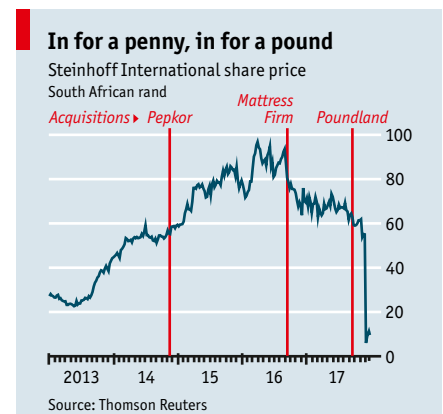
They also allege that Steinhoff made loans to these entities, allowing it to book interest revenue that was never likely to be translated into cash. This, they argue, went hand in hand with "round-tripping", in which large blocks of business were moved off the books and only the profitable bits were then brought back on. The firm has not commented in detail on the analysis, though it has denied impropriety.

Steinhoff's biggest shareholder is Christo Wiese, one of South Africa's richest men. One money manager wonders how Mr Wiese could have been unaware of accounting problems. But there are also questions over the level of due diligence performed by some large financial firms. Steinhoff was a top-15 stock by market value on the Johannesburg Stock Exchange (JSE); many fund managers had it in their portfolio. Investec, a bank, has warned that it could lose up to 3% of its annual post-tax profit, from trading in Steinhoff-linked derivatives. Deloitte, Steinhoff's auditor, is also under scrutiny over the scandal, although the audit regulatory body has said it may not have been in the wrong.

The biggest damage could be suffered by South African pensioners. The Government Employees Pension Fund (GEPF), with more than 1m members, is one of Steinhoff's biggest shareholders, with a stake of around 10%. The GEPF said its stake in Steinhoff amounted to 1% of total assets, making the collapse in the share price "significant but manageable".

The South African parliament's public-accounts committee is less phlegmatic: it has called for Steinhoff to be investigated by an elite police unit called the Hawks. The JSE and South Africa's corporate and financial regulators have all said they will investigate whether Steinhoff breached regulations. German investigators, meanwhile, have been looking at the company's accounting practices since shortly before its listing in Frankfurt in December 2015.

Steinhoff's share price has recovered slightly, but is expected to be volatile until more is known about the firm's liquidity position and the nature of the accounting "irregularities". Steinhoff has appointed Moelis & Company, an investment bank, to advise on talks with lenders, and Alix-Partners, a consultancy, to help with "liquidity management and operational measures". An annual meeting with lenders in London has been postponed to December 19th. "We're all in the dark," says David Shapiro of Sasfin Securities. "Speculating whether there is value or not—there's no point, it's too early." ■



Retail property

Vacant spaces

NEW YORK

The global property business tries to adapt to e-commerce

FIFTH AVENUE in New York is the most expensive stretch of retail property in the world, now festooned with lights in the approach to Christmas. The pavements heave with crowds eager to see the diamonds sparkling at Tiffany & Co, a jeweller, and festive displays at Saks Fifth Avenue, a department store. But storefronts further downtown in once-thriving shopping districts remain vacant.

The global retail property business is having to adapt as consumers spend more online. Consolidation is in vogue. On December 12th two retail property companies, France's Unibail-Rodamco and Australia's Westfield, agreed to merge in a deal worth \$24.7bn to form the world's second-biggest owner of shopping malls by market value. Westfield earns about 70% of its revenues from property holdings in America.

In November, Brookfield Property Partners, another mall owner, bid \$14.8bn for the 66% of GGP, a rival, that it did not already own. Two activist investors, Third Point and Elliott Management, took stakes in two others. They are among several investors to recognise that change is hastening, as many retail properties labour and others discover brighter prospects.

Location, as ever, is key. In France and the Netherlands, as elsewhere, retail properties in smaller cities are struggling while those in big ones thrive. Well-known thoroughfares can attract luxury-goods firms that like having flagship stores to advertise their brand. One example is New Bond Street in London, which is booming. Rents jumped by 34% in the year to June, according to Cushman & Wakefield, a property-services firm. But even prominent streets in some places are experiencing a correction in prices. In Hong Kong rents in shopping hubs have slipped along with rates of visitors from mainland China.

In America, which has about five times as much mall space per person as Britain, "there is a huge bifurcation", says Todd Caruso of CBRE, a brokerage. Some areas and certain types of properties are expected to fare well and others to slump. Atlanta and Orlando are among the cities particularly saturated with stores, with only paltry levels of disposable income and retail sales, according to Green Street Advisors, a property research firm. These will probably see more shop closures. Enclosed malls are usually filled with department stores such as Macy's and other clothes retailers that are all closing outlets. But strip malls,

which have shops connected by a car park, often have a supermarket, so are less susceptible to e-commerce—most Americans still buy food in person, at least for now.

What will happen to retail properties as stores shut is on the minds of city authorities. Other types of companies may fill vacant space in larger cities. In October Hudson's Bay, a retailer, said it would sell its Lord & Taylor department-store building on Fifth Avenue to WeWork, a shared-office firm, for \$850m. Mall owners hope to find new tenants from service industries such as restaurants and gyms. Retailers such as Bonobos that once sold clothes only online are opening more shops.

Bigger groups are better placed to spend on the best malls and sell others. Unibail-Rodamco's plan for its American shopping malls is to "focus on improving them, ride out the storm and see where we go from there," said the company's chief financial officer this week. GGP in October announced an agreement to add flats to a mall in Seattle; Sandeep Mathrani, GGP's boss, wants to make retail centres into "mini cities". Other property companies face more of a challenge. CBL Properties, for instance, owns malls in smaller American cities that have less shopping traffic. CBL's share price has fallen by more than 50% this year, making it harder to invest and turn around ailing spaces.

As the property market evolves, at least one type of investor can be unequivocally cheerful. Vacancies for industrial real estate, including e-commerce warehouses, are at their lowest rate in three decades. Prologis, the biggest owner globally of such property, has seen its share price jump by nearly 20% this year, while other property firms' value has remained flat. ■



Stores of value

Corporate tax in America

Let the games begin

NEW YORK

America Inc has concerns on tax reform

PRESIDENT DONALD TRUMP'S effort to change America's tax code is approaching the finishing line. Republican negotiators from the Senate and the House of Representatives this week hashed out a consensus bill behind closed doors. On December 13th, Mr Trump expressed confidence that he would be able to sign the reform into law before Christmas.

The key provision is the slashing of the corporate tax rate, from 35% to 21%. Big business in America uniformly cheers this reduction. The US Chamber of Commerce calls it a measure to "grow the economy, create jobs, and increase paychecks". The Tax Foundation, a right-leaning think-tank, claims that reducing the corporate rate to 20%, just one percentage point lower, would increase the size of the economy by 2.7% over the long run. Yet big firms are less enamoured of controversial international provisions that may make it into the final law. Both the Senate bill and the House bill try to stop the shifting of profits by American multinationals (MNCs) to affiliates in lower-tax countries by imposing some form of tax on cross-border transactions between business units.

MNCs, both American and foreign, worry that such measures will throttle global supply chains. A trade association for foreign carmakers with operations in America calls the reform effort "highly problematic." America's big trading partners are also concerned. This week, finance ministers from five European countries wrote a joint letter to Steven Mnuchin, America's treasury secretary, warning that the proposals could violate tax treaties and rules of the World Trade Organisation.

Yet the Republican leadership will move heaven and earth to forge an agreement—however imperfect—before Christmas. Republicans have only a slender majority in the Senate. The taking of a Senate seat in Alabama by Doug Jones, a Democrat, on December 12th (pending a possible recount) suggests that the best hope for Republicans is to strike a deal before he takes office early next year.

The final details of the consensus bill remain uncertain, but two things already seem clear. First, whatever law is passed, lobbying will continue. The last such effort of a similar scale, the tax reform of 1986, was the result of years of work and bipartisan consensus. That comprehensive law stood the test of time. In contrast, this year's rushed effort seems likely to leave ▶▶

▶ important constituencies dissatisfied.

Technology-intensive firms are up in arms about a proposed reduction in tax breaks for investing in research and development. Drugmakers are fighting a provision that would make it more expensive to develop “orphan drugs” for serious diseases affecting relatively few people. Many other lobbies are unhappy. All will agitate for changes to the tax code in future.

Second, tax experts have outlined ways in which the Republican proposals can be gamed. Companies would be able to manipulate a deduction for export earnings, for example, by “round-tripping” products out of and then back into America. Individuals can benefit, too. They can set up corporations and give up salaries, taxed at rates of 40% or more, in favour of fees paid by those firms, which would be taxed at 20%. Other examples abound. The main winners from all this seem likely to be accountants and tax lawyers. Gaming the American tax code used to be a select, corporate sport, but it now looks to become everyman’s pastime. ■

Business and politics

Adéu to Catalonia

BARCELONA

Firms in the region vote with their feet against political and legal uncertainty

“WE ARE used to dealing with political crises, but not a break in the rule of law,” says the boss of a big Barcelona cement firm, of Catalonia’s constitutional crisis. Fearing separatists in the region would declare independence, as they did on October 27th, he shifted its headquarters to Madrid. That ended decades of family tradition, but there is no plan to return. “It was a painful decision, but we had no alternative,” he says.

Catalonia accounts for roughly a fifth of Spain’s GDP and a quarter of its exports, but only a sixth of the country’s population. Its diversified economy is the envy of much of Spain, notes Jordi Alberich Llaveria of Cercle d’Economia, a business lobby in Barcelona, thanks to flourishing medium-sized, family-run industrial, textile and perfume-making firms. It has become a hub for multinationals, carmakers, pharmaceutical firms, fashion boutiques and hundreds of startups.

The cement-maker’s boss worries that those industrial and entrepreneurial traditions may fade because of political turmoil. In an independent Catalonia, his company’s double-taxation deals with other countries (70% of its revenues come from abroad) might have been invalid.

Many others have made the same

choice. By this week, over 2,900 firms had moved legal headquarters elsewhere in Spain as a result of the crisis—around half to Madrid. The central government made shifting easier to do with a decree on October 6th that removed a previous requirement for a shareholders’ meeting to grant permission first. Before the crisis, the region hosted seven of the 35 companies on Madrid’s IBEX stock index. Only one, Grifols, a pharmaceutical firm, remains.

The exodus slowed after Madrid imposed direct rule in late October and the jailing of separatists in early November. But uncertainty persists over the result of an election on December 21st. Business would like a lower vote for separatists, but that would not dispel their worries.

Moving legal headquarters need not mean that business operations and factories leave Catalonia. But in practice moving headquarters can affect where staff, especially senior ones, spend time. This is especially the case for some 1,000 firms that have taken a slightly bigger step—shifting their fiscal as well as their legal registration. “You move the board, then the CEO, then senior management. There is a natural knock-on effect,” says one company boss. “The danger is if the brains start leaving,” warns a member of a business lobby.

The financial industry has seen the biggest shift. Before the crisis, Catalonia was home to several of Spain’s largest insurance firms. Five have moved to Madrid; the sixth, a subsidiary of AXA, a French giant, said it is going to Bilbao. The two biggest Catalan banks, CaixaBank and Banco Sabadell, reportedly saw billions of euros of deposits withdrawn weekly at the peak of the crisis. That stopped, and their battered share prices stabilised, only when they left Catalonia. Neither of the big banks will return. “We don’t see any reason to reverse that decision, even in the medium term,” says an executive at one of them.

Firms in other industries are delaying expansion. “Our corporate clients in Catalonia have stopped investment,” says the banker. An official at Barcelona’s city hall (his office overlooks a huge poster demanding “freedom for political prisoners”) confirms that investment has slowed. Big Spanish companies in various industries say local uncertainty is worse than what they face in Britain because of Brexit, where there is at least a legal process.

Other economic activity has slowed, too. Barcelona lawyers, usually busy with property developments, say they have had little business since September. Guifré Homedes Amat, a property agent who also manages 5,000 flats and houses in Barcelona, says trade is flat, after two booming years. Once-keen foreign buyers of second homes—notably rich Egyptians, Chinese and Turks—watch and wait.

José Luis Bonet, boss of Freixenet, a big producer of Cava wine, suggests that dam-



Employees, customers, separatists

age has also been done to the brand of Barcelona. He frets that fellow Spaniards may boycott his own firm’s sparkling product this Christmas, as they have in the past when there were separatist tensions. A lawyer who advises a Catalan sweets factory and a maker of baby products says both firms worry that compatriots will shun their wares. Depending on the election, business confidence could slowly return—but many firms will probably keep their headquarters elsewhere for the foreseeable future, just in case. ■

America’s box office

Blockbusted

Not even “The Last Jedi” will reverse Americans’ retreat from cinemas

THE new “Star Wars” film opens this week. “The Last Jedi” arrives in cinemas in time to boost expected ticket sales for the year to about \$1bn in America, only slightly down from last year’s record. But the American film industry is in trouble. Tickets sold per person have declined to their lowest point since the early 1970s, before the introduction of the multiplex. Expensive flops have prompted studio executives to complain that Rotten Tomatoes, a ratings website, is killing off films before their opening weekends. The studios count on remakes and sequels to attract fans; such films account for all of this year’s top ten at the box office.

It may get worse. Americans are losing the film-going habit as new sources of entertainment seize their attention. Netflix and other streaming services have made it more convenient to watch movies and TV ▶▶

▶ programmes anywhere, on internet-connected TVs, tablets and smartphones. Apps such as Facebook and YouTube are fine-tuned to keep users gawping. Americans spend more than eight hours a day on their various devices, compared with just over four hours a day on TV in 2002, according to Nielsen, a research firm.

That leaves little room for the cinema. Americans are on track to have bought around 3.6 movie tickets per person by the end of the year, down by 30% from 5.1 in 2002. They pay \$8.93 for a ticket, 54% more than 15 years ago, which means, for now, higher total takings, but attendance is expected to decline further. Frequent filmgoers—those who go once a month or more—have dwindled, from 28% of North Americans in 2002 to 11% in 2016, according to the Motion Picture Association of America. The average American goes to the cinemas only to take in a big-budget spectacle or the occasional buzzy hit.

This shift in how people consume entertainment has also changed how it is made, further boosting the allure of the couch. Competition for subscribers among Netflix, Amazon, HBO and other pay-TV services has substantially increased investment in television series and films made for home viewing. Why go to the cinema when you can binge-watch “The Crown” and “Stranger Things 2”? MoffettNathanson, a research firm, reckons that Netflix’s production of films that never reach the big screen will reduce movie ticket sales in America by \$300m-1bn a year.

With the exception of Disney, profits are stagnating. Last year the earnings before interest, taxes, depreciation and amortisation of the film studios at Fox, Time Warner, Universal and Viacom (Paramount) added up to \$1.8bn, down from \$1.9bn in 2010, MoffettNathanson estimates. Studios used to make a lot of money when consumers stayed at home, from DVD sales of their films, but no longer. When “Revenge of the Sith”, another “Star Wars” film, was released in 2005, retail sales, rentals and downloads of all films totalled \$25bn, with the studios taking fat profit margins. That market collapsed to \$12bn last year, according to The Numbers, a website. Streaming revenue is on the rise, but less of that money goes to the studios. (Disney is likely to buy Fox in part to bulk up its own streaming service, which it plans to launch in 2019.)

Studios rely increasingly on international markets for box-office returns, especially fast-growing emerging markets such as China. China’s box office is expected to grow by more than 20% this year to about \$8.3bn, and could surpass America’s by the end of the decade. The country added more than 1,600 cinemas last year—more than four per day. In America, some exhibitors have invested heavily in upgrades, such as recliner seats, to attract customers.

Retailing

The brand played on

NEW YORK

Ivanka Trump’s fashion business repositions at home and soars in Asia

LAUREN, a Democrat from Maryland, makes an impassioned case for not shopping at Ivanka Trump, the business founded by Donald Trump’s daughter. First comes a predictable argument; she abhors supporting any brand that uses the Trump name. Second, the sparkly sandals she bought back when Ms Trump was a tabloid celebrity, not an adviser to the president, fell apart within a year. Shoppers will soon be able to take such complaints directly to sales staff: the brand is about to open its first standalone store, in Trump Tower in New York.

Floral frocks, stilettos and bangles aimed at the mid-market customer do not often inspire strong reactions, but Ms Trump’s fashion line is divisive. Though Ms Trump distanced herself from her company in January, she owns it and receives money through a trust. Some consumers are boycotting it. Others have purged their wardrobes of items they already own. Thredup, a second-hand fashion site, says users listed double the number of Ivanka items for sale in the first five months of 2017 than in the same period last year. But lots of Trump fans

have also spent to express their support.

Ms Trump started her firm in 2007 as a diamond-jewellery boutique selling \$50,000 products. But competing with established designers proved difficult. The company rebranded, capitalising on the popularity of a book, “Lean In”, by Sheryl Sandberg, the chief operating officer of Facebook, with a new campaign: #WomenWhoWork.

Using feminism to sell \$100 office frocks worked well. In 2015 the company’s clothing line alone reportedly generated \$100m. Abigail Klem, who became chief executive in January, said that in 2016 sales rose by 21%. Ms Trump’s visibility during the campaign helped.

But in February Nordstrom, a department store, dropped the fashion line and Neiman Marcus, another upmarket retailer, stopped selling the jewellery. Both cited declining sales. The brand has edged downmarket. Its biggest retailers are Lord & Taylor, Zappos, Macy’s and Walmart. According to Edited, an analytics firm, 84% of Ivanka Trump footwear is discounted, by an average of 55%.

Ms Klem has said the company now wants to build an identity separate from Ms Trump. The new store’s location will not help. Asian consumers, moreover, appreciate the bond between Ms Trump and her brand. Its profile has risen sharply in line with hers. A popular Japanese shopping site, Waja, started selling dresses from the Ivanka Trump fashion label in 2012. It sold nearly 30 times as many Ivanka products in November 2016 as it did in the same month of the previous year. The label now outranks Kate Spade and Calvin Klein on the website.

In China the line is so coveted that fake Ivanka merchandise has flooded the market, and the brand has registered at least 16 trademarks there. Three of them were granted on the same day Ms Trump joined her father and Xi Jinping, China’s president, for a steak dinner at Mar-a-Lago. Abroad, if not at home, Ms Trump’s style may turn into a wardrobe staple.



Waja to go, Ivanka

Others have sold out of the market. That may have been wise. AMC Entertainment, a large North American chain in which Dalian Wanda Group of China holds a majority stake, has been on a spending spree to acquire smaller chains. Its share price has fallen by 55% this year.

Studio and cinema executives argue that the secular trend in American film habits is less about decline than a change

in tastes. Jeffrey Katzenberg, a former head of Disney’s film studio and co-founder of DreamWorks Animation, observes that American film-going has evolved from a “blue collar egalitarian” habit to a more “upscale” experience, at cinemas with luxurious comforts and IMAX and 3D screens. That may be true, but there is a limit to how long new technology can justify rising ticket prices for the silver screen. ■

Schumpeter | The Santa clause

A festive memo from one of America's leading chief executives to his lieutenants



DEAR Team, I trust you are looking forward to your vacations and that the spirit of love and generosity infuses your family gatherings. I also hope that this spirit will be left next to the Christmas tree when you return to work at this incredible company on January 2nd. Because 2018 is going to be the year when America Inc loses its head after a decade of iron financial self-control. And I am not going to make that mistake. Let me drop some festive wisdom: when everyone else is throwing money around like Santa, it is best to behave like Scrooge.

During my workout at 5.10am this morning my trainer played U2. I love Bono for his personal advice on charitable giving, but he is also a perceptive lyricist. "It's a beautiful day" captures the mood in business. Third-quarter results blew the roof off. Earnings per share for the S&P 500 are 23% above the last peak in 2007. The world economy is rocking. At this week's digital town halls our sales teams in Houston and Guangzhou reported record industrial orders. President Macron—whom I first met in 2008 when he was a junior spreadsheet guy at Rothschild—tells me that even the Europeans are doing high fives.

The triple adrenaline shot of a stockmarket boom, synchronised global growth and a worldwide passion for technology is both exciting and dangerous for corporations. Let's not kid ourselves. People will get sloppy about allocating capital. My worst blunders were in the boom years of 1998 to 2001, when we caught the internet bug too early, and between 2006 and 2008 when we invested too much in energy. Every boss is tempted to splurge right now, cheered on by politicians, economists and investors.

I waded through Washington last week. The tax bill will boost our profits by 9%. After I got mad at Mitch McConnell, he reinserted a helpful clause that will save us money in Cayman. Our firm will pay only a small levy to repatriate cash held offshore and will benefit from accelerated depreciation. Like most companies, we've also noticed a better attitude from our regulators: unlike the Obama years, I get my calls returned. There is a price, though. Many Republicans are sincere—they believe in "trickle down" economics and expect us to invest more. A few even expect us to revive the rustbelt. When I saw the president he gave me his hardest sell yet on building a new plant in Iowa. Ivanka had to turn on Fox News to distract him.

The intellectual climate has turned pro-investment. Most economists claim firms are chronically underspending. I know that 67,384% of that is BS. Our job is not to flip-flop according to their models but to deploy capital over economic and technology cycles. Gross corporate investment, at 12.4% of GDP, is in line with the 50-year average, and we have invested a steady share of sales. Still, they are right that many big firms have the resources to let their hair down and let capex rise in line with record profits.

Investors are pivoting, too. The same Wall Street analysts that used to say the "L" in long-term stands for "loser", and begged us to buy back more shares two years ago, now hint we should seek to grow. For the first time in years the shares of firms that invest heavily are no longer underperforming, according to Morgan Stanley. Buy-backs are out of style: just \$128bn was spent on them last quarter, 20% less than in the same quarter in 2015.

Twenty years ago CEOs would have looked at all this and asked "how much" more they should invest. But to understand investment today you have to do a deep dive and answer four other questions: who, what, where and when? Our firm used to be America's third-biggest investor, just behind ExxonMobil. But "who" invests has changed: Alphabet has taken our place (including research and development). Tech firms are competing with incumbents and using their dirt-cheap cost of capital to invest on their behalf. They account for 24% of investment by S&P 500 firms. My buddy Satya Nadella at Microsoft says if we shift our IT centres to his cloud division, we'll save \$700m of investment a year. If I can trust Microsoft not to steal our data, he's got a deal.

"What" we invest in has changed, too. Like most firms, a quarter of our budget goes on intangibles, including software. When I grew up AI was an acronym used in animal husbandry, but I know our firm needs to make mid-size bets on new technologies like artificial intelligence. Tech cuts both ways, though: I'm nervous about building factories that may quickly become obsolete.

As for "where", it's simple: everywhere. We're fairly typical for a big American firm, with 40% of our sales and investment abroad. Given that emerging markets will outpace America, that may rise. Other countries are being protectionist, too. President Xi's people are clear that if we want full access to China's domestic market, we have to invest more there. We have to pay to play.

Lastly, "when" should our firm invest more? Now, in the 101st month of a recovery? The longest-ever expansion, in 1991-2001, lasted 120 months. I have got to admit, it's a tough call.

A turkey shoot in 2020

Here is my prediction. Expect a surge in corporate investment in 2018, with nominal spending rising by up to 10%, equalling the boom in 2006. There's just too much pent-up energy. But it will be more skewed towards intangible assets than in the past, and while it will help the economy, it won't revive the rustbelt.

As for our firm. I get it, I know our investment committee is besieged. We need a new campus in Austin, our software is buggy and fleet management wants Teslas. But leadership is about prioritisation, not saying "yes" to everyone. If you doubt it, repeat two words after me: Jeff Immelt. The former boss of General Electric was so soft on capital allocation the firm has turned to jelly.

So here's the deal. Santa isn't coming to this company. We'll wait as our rivals' budgets swell and the tech boom turns into a bubble. When recession strikes in 2019 our balance-sheet will be pristine and we'll expand when others are weak. In Christmas 2020 this incredible firm will enjoy the biggest stocking ever. ■



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The American economy

The weight of expectations

WASHINGTON, DC

Will America's economy run too hot in 2018?

USUALLY politicians pretend that good economic news on their watch is no surprise. But America's recent growth figures have been so positive that even the administration of President Donald Trump has allowed itself to marvel. "It's actually happening faster than we expected," mused Mick Mulvaney, the White House budget chief, in September, after growth rose to 3.1% in the second quarter. (Mr Trump in fact came to office promising 4% growth, but the goal now seems to be 3%.) Mr Mulvaney warned that hurricanes would soon bring growth back down. Instead, in the third quarter, it rose to 3.3%—a figure celebrated with more conviction. The administration's initial caution was wise: quarterly growth figures are volatile, and few economists expect growth above 3% to carry on for long. Yet there is no denying that the economy is in rude health.

In part, that reflects the strength of the global economy. But it is also the culmination of a years-long trend. As politics has consumed America's attention for the past two years, common complaints from earlier in the decade have, one by one, begun to look dated. The median household income is no longer stagnant, having grown by 5.2% in 2015 and 3.2% in 2016, after adjusting for inflation. During those two years, poorer households gained more, on average, than richer ones. Business investment is no longer tepid: it drove growth in

the third quarter of the year (see chart 1 on next page). Jobs are plentiful—unemployment is just 4.1%. From Wall Street to Main Street, businesses ooze confidence. What is more, tax cuts are poised to stimulate the economy. Analysts no longer ask when growth will at last pick up. Instead, they wonder if the economy might overheat.

The Federal Reserve is alert to the risk. On December 13th it announced its third interest-rate rise this year, and the fifth during this economic expansion, taking rates to 1.25-1.5%. The median forecast of the Fed's rate-setting committee is for three more rate rises in 2018. Not a single rate-setter thinks that today's low rate of unemployment is sustainable. Yet all predict that joblessness will fall further in 2018.

The Fed is right to fret. Credible forecasts are almost unanimous: the sustainable rate of growth, as America's population greys, is closer to 2% than to 3%, whatever Mr Trump says. In the past three months the economy has created an average of 170,000 jobs per month. Yet over the decade to 2026 the population of 20-64-year-olds will, on official projections, grow by fewer than 50,000 a month. Joblessness cannot fall for ever, so, unless productivity accelerates, growth must fall. If the Fed keeps money too loose, inflation will eventually rise, as the economy gets too hot.

Households seem exuberant. In October the University of Michigan's consum-

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er-sentiment index hit its highest level since 2004. Recent consumption growth has been fuelled by a steep fall in household saving, which is down from over 6% of GDP two years ago to just 3.2% today. In early 2016 some analysts fretted that consumers were squirrelling away the money they were saving on cheap petrol, and so denying the economy a needed fillip. Today, the opposite worry seems more pertinent: oil prices have recovered somewhat, but the saving rate has tumbled.

Falling saving is a worry, but consumers' cheer is well-rooted in the buoyancy of the labour market and the strength of household balance-sheets. With interest rates low, debt-service costs, as a share of after-tax income, are close to a record low. Most American mortgages bear fixed interest rates, so homeowners are shielded from higher rates. And house prices have been rising, too. In the third quarter of 2016 they passed their peak of 2007. Since then, they have risen by another 6.3%.

Rich pickings

Higher house prices and a stockmarket boom have delivered a wealth windfall. Households and non-profit organisations now hold assets worth nearly seven times their after-tax income, the highest ratio on record. Middle-earners have seen the biggest gains, according to a recent Fed survey. The average net worth of households in the middle quintile of the income distribution (ie, from the 40th to the 60th percentile) rose by 34% between 2013 and 2016. House prices have recovered despite strict lending regulations introduced after the financial crisis. Mortgages remain difficult for those with poor credit scores.

Politics has helped business confidence. Optimism surged among small firms after Mr Trump won the election. On ►►

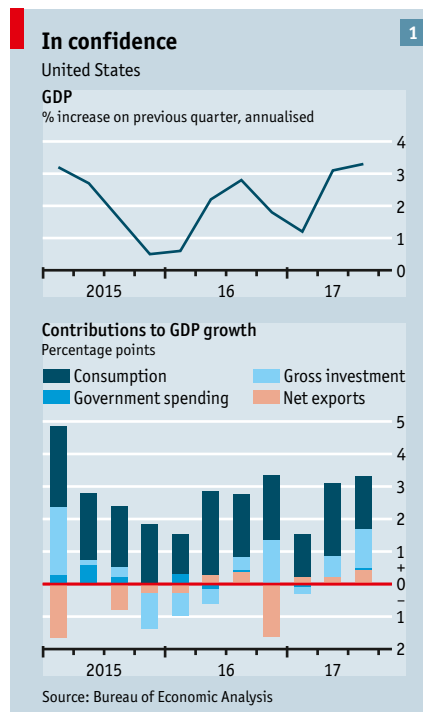
▶ December 5th, days after the Republicans' tax bill passed in the Senate, confidence among chief executives reached its highest level for nearly six years, says Business Roundtable, a lobby group. The prospect of a big cut to corporate taxes (and, perhaps, of deregulation) has boosted a stockmarket already on a long winning run. From the market trough in March 2009 to Mr Trump's election, the S&P 500 rose at an average annual pace of 16%. Since his victory, it has grown at a 22% annualised pace.

A booming stockmarket pleases investors, but it poses another conundrum for the Fed. Some rate-setters worry that loose monetary policy may inflate asset bubbles. And soaring stocks have contributed to a general loosening of financial conditions. The dollar is about 7% weaker, on a trade-weighted basis, than it was at the start of the year. Long-term bond yields have also fallen slightly, having surged after the election. William Dudley, president of the New York Fed, has argued that looser financial conditions strengthen the case for interest-rate rises, because it is by influencing financial markets that monetary policy is supposed to work. According to analysis by Goldman Sachs, financial conditions have actually eased after every instance of Fed tightening since it started raising rates in December 2015.

A crucial element is missing, however, from the "overheating" analysis: inflation. Since the spring, it has persistently fallen short of expectations. Excluding food and energy, prices in October were only 1.4% higher than a year earlier, by the Fed's preferred measure. Wages, too, do not reflect the apparent strength of the labour market (see chart 2). Though blue-collar and service workers are seeing higher pay rises—the wages and salaries of production workers grew at a 3.8% annualised pace in the third quarter of the year—professionals have seen their pay growth slow. Overall, wages are rising by about 2.5%, no faster than two years ago.

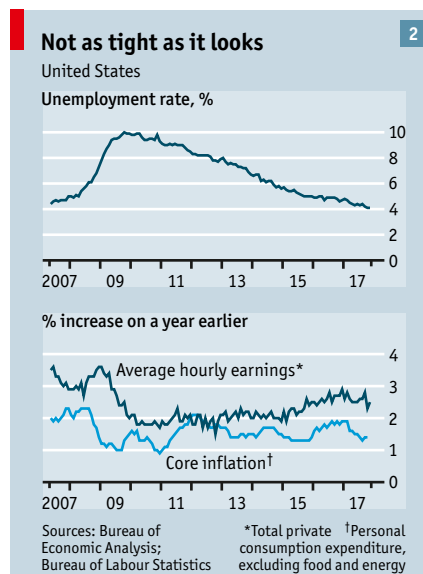
One reason is the time it takes for low unemployment to translate into inflation. In the meantime, one-off factors can distort the data. Ms Yellen points to price cuts for mobile-phone contracts at the start of the year. These should soon drop out of the numbers. Others blame the "Amazon effect"—brutal price wars among retailers. Perhaps, too, the Phillips curve—the relationship between inflation and unemployment—is jagged, and inflation will suddenly spike once joblessness falls too low.

Or perhaps the labour market is not as hot as the Fed thinks. Estimates of the so-called "natural" rate of unemployment—the rate consistent with no upward or downward pressure on inflation—are notoriously unreliable. Rate-setters have gradually revised theirs down, from over 5% at the end of 2013 to 4.6% today. Persistent low inflation may force them to repeat



the trick. In any case, notes Michael Pearce of Capital Economics, a consultancy, the Fed's surveys suggest the labour market is not as tight as it was in, say, mid-2000, when unemployment fell as low as 3.8%. Even in that expansion, underlying inflation did not hit 2%. The boom ended not because of an inflationary surge, but because the dotcom bubble burst.

Moreover, unemployment is not the only variable to watch. It does not count those who are not looking for a job. During and after the crisis, Americans left the workforce in droves. But since late 2015 the labour-force participation of working-age people, especially women, has been rising. For much of 2016, this trend kept unemployment fairly flat even as the economy



added jobs aplenty. Though unemployment has fallen in 2017, working-age participation has kept on rising.

Sceptics doubt whether participation is tightly linked to the economic cycle. They point out that some trends, such as falling participation among working-age men, are very long-running. But participation is at least tricky to forecast. Its recent growth has defied official projections produced by the Bureau of Labour Statistics (BLS).

Whether that continues will set the economy's speed limit. *The Economist* has calculated that, if participation in every age and sex demographic group continues on its trend from the past year, the labour force will grow by around 135,000 workers a month. At recent rates of job growth, unemployment would fall to 3.8% by the end of 2018. But should participation revert to the long-term trend forecast by the BLS, only 86,000 new workers will appear each month. Unemployment would fall much faster next year, to 3.4%.

The Fed's rate rises will probably slow job growth before these hypotheses can be tested. Frustrated doves think the central bank should probe the boundaries of the labour market, and not assume it knows them in advance. It risks denying workers the first truly tight labour market in over a decade. Moreover, only if wage growth is allowed to rise will firms be pressed to invest more in labour-saving technology. This could raise productivity growth, revealing more hidden capacity. (Rising investment and a hint of a productivity rebound this year suggest such a process may be about to kick off.) And if the Fed tightens too quickly, sparking a recession, it may be hard to reverse course, since interest rates cannot fall far before hitting zero.

As evidence that rate-setters are fretting needlessly about inflation, doves point to the bond market. That long-term bond yields have fallen even as the Fed has raised rates suggests investors think the risk of inflation is shrinking. Ms Yellen's report is that inflation expectations, as measured by surveys, have held steady this year. That suggests something else could be pushing bond yields around.

Soon a new Fed chairman will be confronting these puzzles. Jerome Powell is to succeed Ms Yellen in February. Mr Powell, who has served as a Fed governor since 2012, has broadly supported Ms Yellen's strategy of gradual rises in interest rates. In a confirmation hearing before a Senate panel on November 28th, he seemed, if anything, a little more doveish, acknowledging that low labour-force participation among working-age men might indicate remaining slack in the labour market.

Yet the Fed committee is turning over rapidly, and Mr Powell may find himself surrounded by hawks. An example is Marvin Goodfriend, whom Mr Trump has nominated to fill one vacant seat. Mr ▶▶

▶ Goodfriend has for years called for higher rates, prematurely sounding the alarm about inflation as early as 2010. In 2012 he described as “doubtful” the notion that the Fed could bring unemployment down to 7%. When Ms Yellen departs, Mr Trump will have another three seats to fill. Moreover, voting rights rotate among regional Fed presidents, whom the president does not pick. Three doves—Charles Evans from Chicago, Neel Kashkari from Minneapolis, and Robert Kaplan from Dallas—will lose their votes in January, to be replaced by more hawkish voices. A fourth dove, Mr Dudley, plans to retire in 2018. His new col-

leagues may test Mr Powell’s commitment to continuing Ms Yellen’s approach.

The Fed must also decide how to respond to Mr Trump’s tax cuts. Even if the economy is not on the edge of overheating, these are poorly timed. Were stimulus warranted now, the Fed could always cut rates, avoiding the higher public debt that fiscal stimulus incurs. Tax cuts might spur some investment and raise growth by a few tenths of a percentage point in the short term. But they are also likely to nudge the Fed towards faster rate rises. The central bank’s economic model suggests that for every 1% of GDP in tax cuts, rates will even-

tually rise by 0.4 percentage points. The bill that passed the Senate on December 2nd would raise deficits by 0.2% of GDP in 2018 and 1.1% of GDP in 2019, not counting its effect on work and investment incentives.

Policymakers in recent years have tended to show too much caution, rather than too little. That is why a full recovery from the financial crisis has taken so long; it is in part why inflation is too low today. It seems likelier that they will err on the side of caution than allow the economy to run too hot. But America’s policy debate is finely poised. As the economy approaches its capacity, the margin for error shrinks. ■

Buttonwood | Swanning about

The market view of Brexit is more complex than it appears

FOR all the sound and fury of the Brexit negotiations, it has seemed at times as if the financial markets have been barely affected. But as with the swans that glide on the Thames, a serene surface conceals some frantic paddling underneath.

The pound is the most reliable indicator of the Brexit mood. A rule of thumb is that, if the headlines point to a “hard” Brexit (creating trade barriers with the EU), sterling will fall; signs of a “soft” Brexit (something that is close to the current relationship) will cause it to rise.

But some feedback processes are at work. The big fall in the pound in the immediate aftermath of the referendum has led to a gradual rise in imported inflation. The annual inflation rate hit 3.1% in November, requiring Mark Carney, governor of the Bank of England, to write to Philip Hammond, the chancellor, to explain why the target (of 2%) had been missed. The bank has already raised interest rates once. More rises may follow, and expectation of such rises supports the pound.

The need for monetary tightening is not simply a result of higher import costs, which might prove temporary. More worryingly, the Bank thinks that the trend rate of growth of the British economy has fallen (a view it shares with the Office for Budget Responsibility, the government’s forecasting arm). In part, this is because Britain faces a more difficult future after Brexit; in part it is a recognition that the economy’s productivity was dented by the 2008 financial crisis.

If the trend growth rate falls, that brings forward the time when a tighter labour market begins to be translated into faster wage increases and into broader inflation. In turn, this means the central bank may have to act more quickly to push up interest rates.

When it comes to the bond and equity

markets, the Brexit effect has to be seen in light of global trends: historically low bond yields and a widespread stockmarket boom. Ten-year gilt yields fell below 1% in the aftermath of the referendum, and are still below their level at the end of May 2016. But bond yields can drop for two reasons. The optimistic one is that the bonds look more attractive to investors, so the price rises and the yield falls. The pessimistic one is that investors become less sanguine about the economic outlook and shift into bonds because they are less risky.

It is tempting to assume the pessimists are wrong; after all, the stockmarket is up and it would suffer if economic growth were thought to be at risk. But the analysis is made more complicated by the presence of a lot of multinationals in the FTSE 100 index. Their prospects are not wholly reliant on the British economy. And their overseas earnings are worth more, in sterling terms, after the pound’s fall.

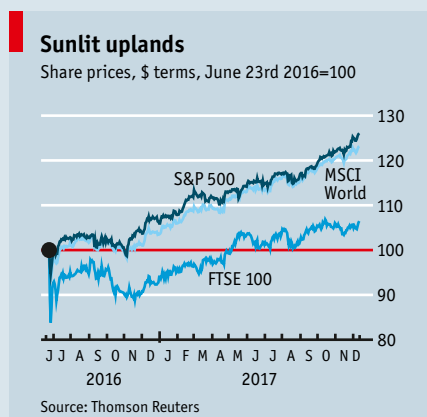
In relative terms, British equities have not been performing well. Measured in dollar terms, the FTSE 100 has risen by just 6% since the referendum, compared with gains of 23% in the MSCI World index and

26% in the S&P 500, America’s main benchmark (see chart). In both dollar and sterling terms, the FTSE 100 index has been one of the worst-performing developed markets in 2017. A survey of global fund managers by Bank of America Merrill Lynch in November found that a net 37% have a lower-than-normal weighting in British equities.

Nevertheless, there has been no dramatic stockmarket sell-off and the pound is above its post-referendum lows. Investors have tended to ignore the nationalist rhetoric and assume that rationality will triumph in the end. The trading links between Britain and the EU are too important to jeopardise. Furthermore, the process has become elongated. Since a two-year transition deal seems likely, the crunch point for trade may not occur until 2021. As a result, investors choosing how to allocate assets in 2018 may decide not to worry about Brexit too much.

One school of thought is that the process will turn into BINO (Brexit In Name Only) with Britain staying in the single market—in effect, remaining in the EU but without having any influence over the rule-making process. That is the logical consequence of the deal that has been reached over the Irish border; if Northern Ireland stays aligned both with the regulations prevailing in the Irish republic and in the rest of Britain, the implication is that Britain stays in the single market.

But that also leaves scope for disappointment among investors later, when the British government tries to reconcile the various contradictory promises it has made. That is another thing with swans; they look beautiful, but they are bad-tempered birds which can give a nasty whack with their wings.



Energy disruptions in Europe

The cracking forties

As markets tighten, supply distortions ripple around the world

CALL it the hydrocarbon equivalent of the butterfly effect. As oil and gas supplies tighten during the northern winter, disruptions as remote as a hairline fracture on a piece of Scottish pipeline, and an explosion in an Austrian natural-gas plant, have repercussions felt around the world.

Start with the pipeline. After Ineos, a chemicals company, detected a growing crack on a piece of pipe near Aberdeen, on December 11th it said it would shut the main Forties pipeline carrying North Sea oil and gas to Britain for weeks. The suspension of a pipeline carrying 450,000 barrels a day (b/d) of crude, in a global market of almost 98m b/d, would not normally be disruptive. Yet Brent crude, the benchmark for pricing much of the world's seaborne crude, is itself partly priced on the flow of crude from 80 fields that feed the Forties pipeline, magnifying the impact.

Futures prices for Brent crude delivered in February and March surged to two-year highs, above \$65 a barrel, before falling back. That emphasised how little slack the market has, after the extension last month of a production cut by OPEC, the producers' cartel, Russia and other petrostates. Ann-Louise Hittle of Wood Mackenzie, a consultancy, says some European refineries rely on Brent crude to produce heating oil for sale in Germany and elsewhere. "Suddenly half a million barrels are out of action at a delicate time going into winter," she says. Those refineries may now receive some shipments of American crude.

The mishap also highlighted the fragility of the Brent benchmark, which is priced based on demand for four types of crude produced in ageing North Sea fields running through pipelines dating from the 1970s. Earlier this year s&p Global Platts, an agency that assesses the Brent price, said it would incorporate from January a fifth crude from a Norwegian field, to ensure a more stable mix of production.

The pipeline also carries a tenth of Britain's natural-gas supply. Stuart Elliot of s&p Global Platts says that, in Britain, wholesale gas prices surged by 40% following the shutdown, until terminals storing liquefied natural gas (LNG) disgorged some stock. Indicating the global reach of the incident, he says Britain may stock up on gas by buying a cargo from the first tanker bringing LNG from Yamal, a field in the Russian Arctic, which was inaugurated by President Vladimir Putin on December 8th. Much of its gas is destined for China.



The Baumgarten blast

As Britain struggled with its gas supplies, elsewhere in Europe had to cope with an explosion at the Baumgarten gas hub in Austria on December 12th that killed one person. It stopped the flow of Russian gas through Austria into Italy, sending day-ahead prices for such gas soaring. Italy, which depends on Russian gas for about a third of its consumption, declared a state of emergency. But later that night Russian gas reached Italy again after OMV, Baumgarten's operator, diverted flows. Predictably, the Kremlin used the incident to press for more pipelines to Europe. But the EU is reluctant to lean too heavily on imports of Russian gas. It sees LNG, including from America, as a useful alternative that could enhance its energy security. ■

The World Trade Organisation

The art of the impossible

BUENOS AIRES

A ministerial meeting disappoints

"THERE is life after Buenos Aires," soothed Susana Malcorra, chair of the 11th ministerial meeting of the World Trade Organisation (WTO). Multilateralism may not be dead, but it has taken a kicking. Expectations were low as the meeting began in the Argentine capital. They sank even lower as it progressed. Delegates failed to agree on a joint statement, let alone on any new trade deals.

Many arrived with a culprit already in mind. Robert Lighthizer, the United States Trade Representative, was the face of an administration that is both questioning the benefits of multilateralism and jam-

ming the WTO's process of settling disputes. As negotiations progressed, some delegates grouched that American leadership was lacking. Some even speculated that the Americans might be happy if multilateral talks foundered. What better proof, after all, that the system is broken?

Ms Malcorra, without mentioning the Americans by name, warned against creating scapegoats out of those who might recently have "shifted gear". The WTO, after all, had problems before Mr Lighthizer took up his job. Decisions are made by consensus, which leaves deals vulnerable to hostage-takers. In some cases, the victim is the negotiating agenda. Still hanging over the WTO is a 16-year-old negotiating round, in theory meant to further global development. Until that round is concluded, members such as South Africa are reluctant to negotiate on any new issues, like rules on e-commerce or investment facilitation.

Members arrived in Buenos Aires in disagreement, and refused to budge. The Indian delegation wanted to lift restrictions on its government's ability to distribute stockpiles of food. When the Americans refused, the Indians looked for a way to retaliate. They ended up killing an agreement to ban subsidies for illegal, unreported and unregulated fishing—as national leaders had agreed to do by 2020 as part of the United Nations' Sustainable Development Goals. Cecilia Malmström, the European trade commissioner, called this failure "horrendous".

Amid the triumph of self-interest over the greater good, there were some grounds for cheer. For now, it seems Mr Lighthizer is planning to influence the multilateral system from within. A joint statement released by America, Japan and the European Union pledged "to enhance trilateral co-operation in the WTO" when dealing with excess capacity, forced technology transfer and local-content requirements.

Perhaps more importantly, members are actually moving ahead on some issues. A coalition of countries ranging from America and the EU to Cambodia has signed up to negotiate new rules on e-commerce on a plurilateral, rather than a multilateral, basis. As long as enough members agree among themselves for the deal to be worthwhile, and do not discriminate against other members of the WTO, a deal is possible. The message was clear: if some members want to block discussion, then they will be left behind.

It seems unlikely that a surge of plurilateral agreements will be enough to jolt the WTO into life. For that, the organisation's members will need to show more commitment to it—and to learn the art of compromise. Roberto Azevêdo, the WTO's director-general, wrapped up the conference by reminding members that "multilateralism doesn't mean that we get what we want. It means we get what is possible." ■

Futures contracts in bitcoin

Blooming futures?

Futures contracts in bitcoin create as many risks as they mitigate

OFTEN promoted as a way of mitigating risk, futures contracts are frequently more like new ways of gambling. That was true of a close precursor to the instrument, introduced in the Netherlands in 1636, linked to the hot investment of the day—tulip bulbs. Likewise the world's first two futures contracts linked to bitcoin. One launched on the Chicago Board Options Exchange (CBOE) on December 10th; the other was due to follow a week later on the Chicago Mercantile Exchange (CME).

As bitcoin's price has soared to new

highs (see chart), holders may be happy to have a way to hedge their exposure at last. But for many, the contracts are just another way in. Both contracts settle in cash (ie, for the difference between the agreed price and the actual spot price). No exchange of bitcoin is needed; similarly, in the Dutch precedent, no bulbs were involved.

Early trading on the CBOE certainly suggests a speculative market. In the first few hours, prices rose so quickly that trading twice had to be suspended. The contract has so far traded at a significant premium, of up to \$2,000, to the spot price. This suggests there are more buyers than sellers—even though selling in the futures market offers a way to bet against bitcoin.

It may be that investors are willing to pay some premium to evade the mounting hassle entailed in buying bitcoin. In recent days, many bitcoin exchanges have seen systems failures. Also, prices have differed between exchanges by as much as 25%.

Into the futures

\$ per bitcoin



Source: Bloomberg

*At 8am Dec 14th

And hackers stole bitcoin worth \$64m (at the time) from a Slovenian exchange.

But the futures contracts have problems of their own. The CBOE's price is set by an auction on just one modestly sized bitcoin exchange, Gemini. The CME's price, in contrast, will be based on an index compiled from data from four exchanges. The collateral, or "margin", required for clearing the contracts highlights their riskiness. The CBOE contract requires 44%; the CME first announced it would charge 35%, but then revised the figure to 47%. On most futures, margins are around 5-15%.

Thomas Peterffy, the head of Interactive Brokers, a large brokerage, warns that there could be a risk to clearing-houses themselves. Bitcoin, he points out, "can reach any price". If bitcoin futures are taken up in large numbers, bitcoin prices rise far enough and end-clients are not able to put up more margin, brokers will be on the hook; a big enough rally could mean small brokers run out of money. This would leave the clearing-house responsible for unwinding the contracts, a difficult task if the margin for bitcoin contracts is mixed with that from other contracts, as now. Mr Peterffy thinks exchanges need to clear bitcoin futures in a separate legal entity.

Others share his concerns. In a rare open letter to the Commodity Futures Trading Commission (CFTC), America's futures regulator, the Futures Industry Association (FIA), a global trade body, criticised the exchanges' use of a self-certification process for the new contracts. It argued that this did not leave room for a debate about appropriate safeguards and whether separate clearing was needed. Ed Tilly, boss of the CBOE, says accusing his firm of sneaking in the new contract unnoticed is unfair. It has been discussing bitcoin with the CFTC for months (as has the CME).

Despite the unease, many brokers are helping clients use the new contracts. Optimists hope that bitcoin futures will become well-established and even make underlying markets more robust by dampening volatility. Pessimists recall that the tulip-futures innovation of 1636 did not stop the tulip-bulb crash of 1637. ■

Investing in collectables

The passion index

NEW YORK

Handsome rewards await those who can afford the finest luxuries

DIAMONDS, they say, are for ever. They can be pricey, too. On December 5th 173 lots of jewels auctioned by Sotheby's raised \$54m. They included several pieces belonging to Sean Connery, known for playing James Bond. The following day a car favoured by Bond, the Aston Martin DB5, was auctioned for \$2.7m. It was among 24 classic vehicles that together fetched \$45m. The sales in New York last week by the world's two biggest auction houses, Sotheby's and Christie's, also involved fine wines, watches and other luxuries. Between them they sold \$200m-worth.

The Economist has compiled price indices for many of these items—diamonds, classic cars, fine wine, art, watches and other curios—and grouped them in a "passion" index. The index is weighted according to the holdings of high-net-worth individuals (HNWI)—defined as people with more than \$1m of investable assets—as reported by Barclays. Our passion index has dropped by 2% a year, on average, for the past three years. But since the beginning of 2007 it has returned 5.9% on average, outperforming the total return from the MSCI world, a global stockmarket index.

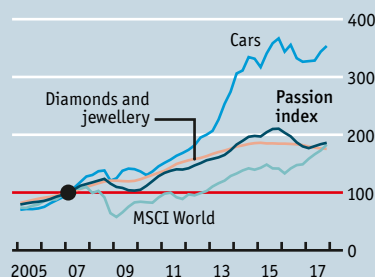
Passion investing may help hedge other bets: art tends to be inversely correlated to stockmarket indices, for example. The supply of many collectables is fixed; demand for them is growing. The number of HNWIs rose from 11m to 16.5m from 2011 to 2016 and their collective wealth

grew to \$63trn, according to Capgemini, a consultancy. It forecasts that HNWI wealth will surpass \$100trn by 2025, with about 10% invested in collectables.

Caution is advised. The returns from collectables may be hard to realise. First, the indices do not reflect the true cost of investing: insurance, storage and upkeep are all costly. Second, unlike shares, items in our index are neither very liquid (except wine) nor fungible (the goods are rarely interchangeable). When a quick sale is sought—often caused by debt, death or divorce—big losses can be incurred. Finally auctions, the basis for many of our indices, may inflate the market thanks to reserve pricing. Unlike last week's glamorous showing, losses are often booked quietly in private sales. And you cannot settle in bitcoin.

Life in the fast lane

Passion investments, Q1 2007=100



Sources: Art Market Research; Classic Guitar; FCRF; HAGI; Liv-ex; Stanley Gibbons; Thomson Reuters; QBI

China's economists

Profits forecast

SHANGHAI

Economists become hot commodities

EVERGRANDE, a Chinese property firm, is a big spender. It was until recently the country's most indebted developer. It also owns a football club with one of the highest payrolls in China. It has extended its largesse to a new field: economics. Having founded an economic-research institute, Evergrande last month poached Ren Zeping, a star analyst with a big brokerage, to serve as its first chief economist. His annual salary of 15m yuan (\$2.3m) is, based on available information, the highest ever for an economist in China. Not bad for a country where forecasting the official growth figures accurately has for years required little more research than reading the official growth targets.

Yet Evergrande is not alone in splashing cash in China, whether in property, football or, lately, economics. Competition for the best—or, rather, best-known—economists is fierce. The past half year alone has resembled a frenzied transfer window for their services. Besides Mr Ren, half a dozen other senior economists have jumped ship, mostly between brokerages.

Salaries for economists are rarely disclosed, but, judging from the few that have been reported, it is fair to assume that they are not struggling to make ends meet. Li Xunlei had been earning 9.9m yuan a year at Haitong Securities before moving to a rival late last year. Chief economists at China's top brokerages tend to have salaries in the 6m-8m yuan range and pay is climbing every year, according to a blog on the website of *Caijing*, a respected financial magazine.

The most basic of economics explains why. China has a supply of just a hundred or so economists with long records of crunching numbers, interpreting policy, cultivating contacts and speaking to investors. And with brokerages and asset managers investing heavily in their staff as they professionalise, demand for their services is strong.

A supply response will, in time, slow the salary gains. A flood of talented graduates in the dismal science means that wages of junior analysts are much more subdued. But their prospects should still be bright—if they can master the art of the aphorism. One of Mr Ren's recent quips was about China's slowing growth as the economy matures: "the new 5% will be better than the old 8%". For him and his rarefied peers, that is most certainly true.

Bank capital

Arriving hopefully

The revised standards are complete at last. Have Europe's banks got off lightly?

HOWEVER long a storm lasts, clearing it up takes longer. On December 7th Mario Draghi, president of the European Central Bank and head of the committee that approves global bank-capital standards, declared that revisions to Basel 3, the version drawn up after the financial crisis of 2007-08, were complete. The overhaul of the previous rules, which were blown away in the tempest, began eight years ago. The revised set, informally called Basel 4, will not take full effect until 2027.

That lengthy period of adjustment is one way in which Basel 4 is less demanding than banks, notably in Europe, had feared. Several other tweaks mean that the standards banks must eventually meet will be less exacting than first proposed. Already forced to bolster their balance-sheets with lots more equity—of which the crisis showed them to be woefully short—banks may deny that they have got off lightly. But they probably have.

Basel 4 was supposed to be settled a year ago. It wasn't, because of a row over proposed limits on banks' use of internal models to calculate their risk-weighted assets (RWAs), which may also be worked out from a "standardised" approach. The ratio of common equity to RWAs, known as the CET1 ratio, is a key indicator of banks' capital strength. Low risk-weights mean lower RWAs, which in turn mean

banks need less equity for a given CET1 ratio. To limit the potential advantage from using models, Basel's standard-setters proposed setting a floor for the minimum ratio of RWAs calculated from models to the answer from the standardised approach.

Because European banks tend to hold a lot of assets with low risk-weights, such as mortgages and corporate loans, they wanted a low floor or none. Because American banks have fewer such loans and their domestic rules already contain a floor, they wanted a higher one, arguing that the Europeans' habits were unfair and unsafe. Basel's drafters first suggested a floor of between 60% and 90% of the amount under the standardised model. After much haggling—with the French the most stubborn holdouts—the floor was set at 72.5%.

The fine details make life a little easier for banks. Residential mortgages, "specialised" lending, such as infrastructure loans, and some corporate loans will incur lower risk-weights in the standardised approach than first suggested. Basel 4 does forbid using fancier models for loans to large companies. But banks had worried that their use for smaller firms would be curbed too.

Basel 4 also revises the capital requirement to cover operational risk—such as fines for bad behaviour or the cost of computer hacks. Banks must use a standardised method, outlawing an alternative that gave them some discretion. This too looks less stringent than it might have been. In principle, the operational-risk requirement may be multiplied to reflect past transgressions (because banks with a bad record may sin again). National supervisors, however, may choose not to bother. Standard-setters also postponed by two years, until 2022, the implementation of stricter coverage of trading losses. Several countries had already announced delays.

Analysts at UBS estimate that Basel 4 leaves European banks with a capital shortfall of €40bn (\$47bn), but this dwindles to €5bn if supervisors make offsetting changes—Nordic countries may unwind increases in requirements made ahead of Basel 4. The impact will vary hugely across banks. And banks point out that Basel 4 is not their only burden. On December 12th UniCredit, Italy's biggest bank, estimated that Basel 4, new guidelines from the European Banking Authority, a supervisor, and other rule changes would lop 4.7 percentage points, or one-third, from its CET1 ratio between 2017 and 2027. (It expects to earn more than enough to offset this.)

Banks also say they have plenty of equity, should disaster strike again. They may be right. But if interest rates stay ultra-low, central banks will have little scope to cut them after another crash. The financial system will therefore be more reliant on banks' shock-absorbers. So yes, cheer the completion of Basel 4, but hope that those are thick enough—or not put to the test. ■



Free exchange | A lost decade

Governments prevented a second Depression, but left the world vulnerable

TEN years ago this month, America entered the “Great Recession”. A decade on, the recession occupies a strange space in public memory. Its toll was clearly large. America suffered a cumulative loss of output estimated at nearly \$4trn, and its labour markets have yet to recover fully. But the recession was far less bad than it might have been, thanks to the successful application of lessons from the Depression. Paradoxically, that success spared governments from enacting bolder reforms of the sort that might make the Great Recession the once-a-century event economists thought such calamities should be.

Good crisis response treats its symptoms; the symptoms of a disease, after all, can kill you. On that score today’s policymakers did far better than those of the 1930s. Government budgets have become a much larger share of the economy, thanks partly to the rise of the modern social safety net. Consequently, public borrowing and spending on benefits did far more to stabilise the economy than they did during the Depression. Policymakers stepped in to prevent the extraordinary collapse in prices and incomes experienced in the 1930s. They also kept banking panics from spreading, which would have amplified the pain of the downturn. Though unpopular, the decision to bail out the financial system prevented the implosion of the global economy.

But the success of those policies, and the relatively bearable recession that resulted, allowed governments to avoid more dramatic interventions of the sort which, after the 1930s, gave the world half a century of (relative) economic calm. By reducing the need for radical innovation, the speed and efficacy of the response left the world economy less reformed and so vulnerable to the same forces that made the crisis possible in the first place.

Several shortcomings stand out. In dealing with the Depression, governments ultimately discarded the gold standard, the global currency regime that helped propagate the disaster. Countries on gold sacrificed monetary-policy independence, and had to respond to a loss of market confidence with an economy-bashing increase in interest rates, for instance. The system transmitted distress around the world. When one country acted to build up its gold reserves, others saw a sudden drain on theirs. The sooner a country left gold in the 1930s, the sooner its recovery began.

But the international system that facilitated the more recent financial crisis has been neither abandoned nor reformed. Open capital flows can put countries at the mercy of sudden swings in market sentiment. To manage this, many emerging markets accu-

mulate foreign-exchange reserves, which can be drawn on in crisis. But these reserves add to a global glut of capital which depresses interest rates and encourages borrowing. Because reserves are so often held in the form of dollar-denominated bonds, they can destabilise the American economy. They also heighten the world’s exposure to American financial stumbles. This regime helped turn an American housing bust into a global crisis, and remains in place now. Although dangerous financial vulnerabilities in America will take time to build up again, the present financial peace is likely to be far shorter than the 75 years that separated the Depression and the Great Recession.

Big short memories

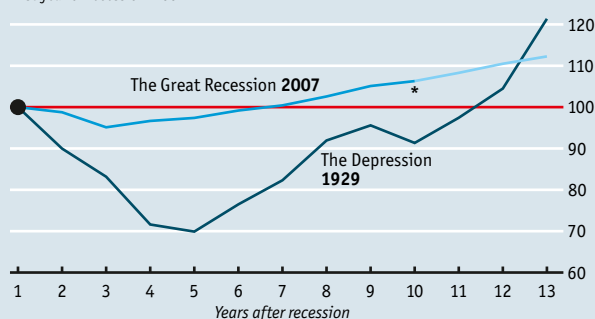
That would be less troubling had the world made itself more robust to future crises after the last one. In the years after the Depression, sweeping banking and financial reforms created new regulatory institutions and placed tight constraints on financial behaviour, which made finance a very boring industry for most of the next half-century. From the 1980s to the 2000s, those restrictions were largely undone: banks were given freer rein over the activities they could engage in and products they could create. The financial crisis could not have occurred without this liberalisation. Yet in its wake, the financial sector has been treated relatively gently. Oversight and disclosure have been improved and capital-adequacy rules toughened (see previous story). But some of these rules are now being relaxed, at least in America, and the financial industry’s weight in the world economy has scarcely changed. As a share of American GDP it has actually increased somewhat since 2007.

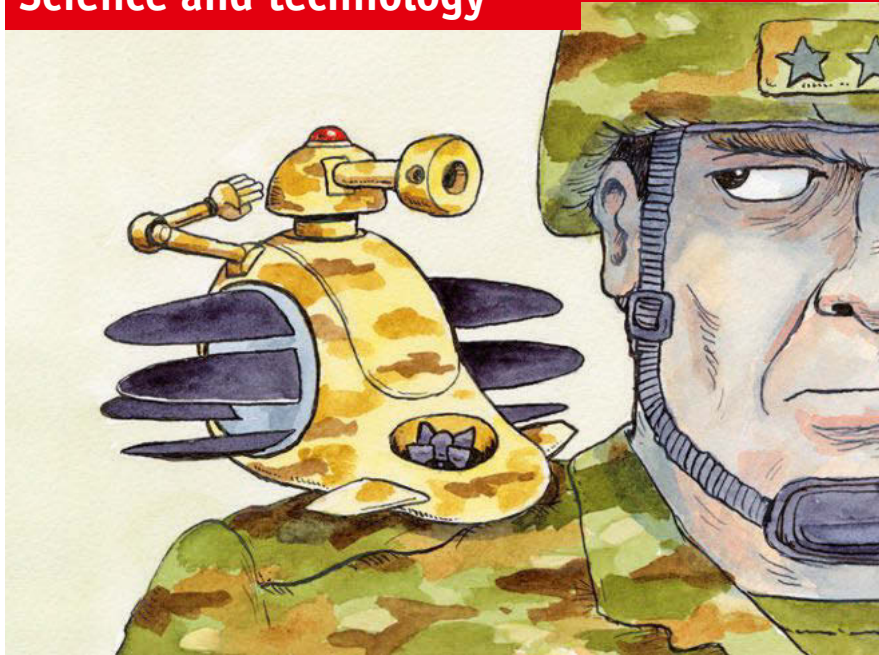
The stabilisation policies used in the Great Recession were vastly superior to those of the Depression. But today’s governments have done a worse job of learning from experience than did their forebears. Franklin Roosevelt did not simply seek to restore growth. Rather he promised reflation in order to make up the ground lost during the downturn. After the Great Recession, in contrast, most central banks (the Bank of Japan being a notable exception) were content to prevent prices falling, and have not actively worked to make up lost output. As a result, the recovery has been much weaker than in previous cycles, including the Depression (see chart), and monetary policy has taken longer to return to normal, leaving economies poorly prepared for the next recession. Similarly, the Great Recession demonstrated the value of automatic fiscal stabilisers, but governments failed to seize the opportunity to link tax and benefits more closely to the business cycle. Indeed, rules that have recently been adopted, such as Europe’s fiscal compact, constrain rather than harness fiscal policy.

The Depression enabled radical change by discrediting untrammelled capitalism and the elites who supported it. That had dangerous side-effects: it also empowered fanatical and dangerous political outsiders. Though financial and political elites were not spared a populist backlash after the Great Recession, they have largely kept their seat at the table, blocking the enactment of bolder reforms. The success of the response to the downturn helped avoid some of the disasters of the 1930s. But it also left the fundamentals of the system that produced the crisis unchanged. Ten years on, the hopes of radical reform are all but dashed. The sad upshot is that the global economy may have the opportunity to relearn the lessons of the past rather sooner than hoped. ■

Not so manic

United States, real GDP per working-age adult, 16- to 64-year-olds
First year of recession=100





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Miniature robotics

Bot flies

Military robots are getting smaller and more capable

ON NOVEMBER 12th a video called “Slaughterbots” was uploaded to YouTube. It is the brainchild of Stuart Russell, a professor of artificial intelligence at the University of California, Berkeley, and was paid for by the Future of Life Institute (FLI), a group of concerned scientists and technologists that includes Elon Musk, Stephen Hawking and Martin Rees, Britain’s Astronomer Royal. It is set in a near-future in which small drones fitted with face-recognition systems and shaped explosive charges can be programmed to seek out and kill known individuals or classes of individuals (those wearing a particular uniform, for example). In one scene, the drones are shown collaborating with each other to gain entrance to a building. One acts as a petard, blasting through a wall to grant access to the others.

“Slaughterbots” is fiction. The question Dr Russell poses is, “how long will it remain so?” For military laboratories around the planet are busy developing small, autonomous robots for use in warfare, both conventional and unconventional. In America, in particular, a programme called MAST (Micro Autonomous Systems and Technology), which has been run by the US Army Research Laboratory in Maryland, is wrapping up this month after ten successful years. MAST co-ordinated and paid for research by a consortium of established laboratories, notably at the Univer-

sity of Maryland, Texas A&M University and Berkeley (the work at Berkeley is unrelated to Dr Russell’s). Its successor, the Distributed and Collaborative Intelligent Systems and Technology (DCIST) programme, which began earlier this year, is now getting into its stride.

In 2008, when MAST began, a spy drone that you could hold in the palm of your hand was an idea from science fiction. Such drones are now commonplace. Along with flying drones, MAST’s researchers have been developing pocket-sized battlefield scouts that can hop or crawl ahead of soldiers. DCIST’s purpose is to take these autonomous robots and make them co-operate. The result, if the project succeeds, will be swarms of devices that can take co-ordinated action to achieve a joint goal.

A hop, skip and jump away

At the moment, America’s defence department is committed to keeping such swarms under human control, so that the decision to pull a trigger will always be taken by a person rather than a machine. The Pentagon is as alarmed by the prospect of freebooting killer robots as the FLI is. But, as someone said of nuclear weapons after the first one was detonated, the only secret worth keeping is now out: the damn things work. If swarms of small robots can be made to collaborate autonomously, someone, somewhere will do it.

Existing small drones are usually polycopters—helicopters that have a set of rotors (generally four or six) arranged at the vertices of a regular polygon, rather than a single one above their centre of gravity. Some MAST researchers, however, think they have alighted on something better.

Their proposed replacement is the cyclocopter. This resembles an airborne paddle steamer. Though the idea of cyclocopters has been around for a while, the strong, lightweight materials needed to make them have hitherto been unavailable and the computing tools needed to design them have only recently been created. Now that those materials and tools do exist, things are advancing rapidly. Over the course of the MAST project the researchers have shrunk cyclocopters from being behemoths weighing half a kilogram to svelte devices that tip the scales at less than 30 grams. Such machines can outperform polycopters.

Cyclocopter aerodynamics is more like that of insects than of conventional aircraft, in that lift is generated by stirring the air into vortices rather than relying on its flow over aerofoils. For small cyclocopters this helps. Vortex effects become proportionately more powerful as an aircraft shrinks, but, in the case of conventional craft, including polycopters, that makes things worse, by decreasing stability. Cyclocopters get better as they get smaller.

They are also quieter. As Moble Benedict of Texas A&M, one of the leaders of the cyclocopter project, observes, “aerodynamic noise is a strong function of the blade-tip speed”—hence the whup-whup-whup of helicopters. The blade-tip speeds of cyclocopters are much lower. That makes them ideal for spying. They also have better manoeuvrability, and are less disturbed by gusts of wind. ▶▶

▶ Dr Benedict reckons cyclocopters are about two years away from commercial production. Once that happens they could displace polycopters in many roles, not just military ones. But they are not the only novel technology in which MAST has been involved. The programme has also worked on robots that hop.

One of the most advanced is Salto, developed by the Biomimetic Millisystems Laboratory at the University of California, Berkeley. Salto (pictured) is a monopod weighing 98 grams that has a rotating tail and side-thrusters. These let it stabilise itself and reorient in mid-leap. That gives it the agility to bounce over uneven surfaces and also to climb staircases.

Salto's speed (almost two metres a second) puts huge demands on its single leg. Ron Fearing, one of the electrical engineers developing it, puts things thus: "imagine a cheetah running at top speed using only one leg, and then cut the amount of time that leg spends on the ground in half." As with cyclocopters, the materials and processing power needed to do this have only recently come into existence.

Dr Fearing says Salto and its kin are quieter than aerial drones and can operate in confined spaces where flying robots would be disturbed by turbulence reflected from the walls. They can also travel over terrain, such as collapsed buildings, that is off-limits to wheeled vehicles. Salto still needs work. In particular, it needs to be able to cling more effectively to what it lands on. Dr Fearing uses the analogy of a squirrel leaping from branch to branch. Arriving at the next branch is only half the battle. The other half is staying there. Once that is solved, though, which it should be in the next year or two, small non-flying robots that can go where their wheeled, or even track-laying, brethren cannot should become available for practical use.

Bouncing over the rubble of a collapsed building is not the only way to explore it. Another is to weave through the spaces between the debris. Researchers at the Biomimetic Millisystems lab are working on that, too. Their solution resembles a cockroach. Its body is broad and flat, which gives it stability but also permits it to crawl through narrow spaces—if necessary by going up on one side. Should it tip over whilst attempting this, it has wing-like extensions it can use to flip itself upright again.

Getting into a building, whether collapsed or intact, is one thing. Navigating around it without human assistance is quite another. For this purpose MAST has been feeding its results to the Defence Advanced Research Projects Agency (DARPA), America's main federal military-research organisation. According to Brett Piekarski, who led MAST and is now in charge of DCIST, the Fast Lightweight Autonomy (FLA) programme at DARPA will continue MAST's work with the aim of developing



Ready to spring into action

small drones that can "ingress and egress into buildings and navigate within those buildings at high speeds". Some of that has already been done. In June DARPA reported that polycopters souped up by the FLA programme were able to slalom through woodlands, swerve around obstacles in a hangar and report back to their starting-point, all by themselves.

Unity is strength

The next challenge—the one that people like Dr Russell particularly worry about—is getting the robots to swarm and co-ordinate their behaviour effectively. Under the aegis of MAST, a group from the General Robotics, Automation, Sensing & Perception (GRASP) laboratory at the University

of Pennsylvania did indeed manage to make drones fly together in co-ordinated formations without hitting each other. They look good when doing so—but, to some extent, what is seen is an illusion. The drones are not, as members of a swarm of bees or a flock of birds would be, relying on sensory information they have gathered themselves. Instead, GRASP's drone swarms employ ground-based sensors to track individual drones around, and a central controller to stop them colliding.

That is starting to change. A farewell demonstration by MAST, in August, showed three robots (two on the ground and one in the air) keeping station with each other using only hardware that was on board the robots themselves. This opens the way for larger flocks of robots to co-ordinate without outside intervention.

Moreover, as that demonstration showed, when drones and other robots can routinely flock together in this way, they will not necessarily be birds of a feather. "Heterogeneous group control" is a new discipline that aims to tackle the thorny problem of managing units that consist of various robots—some as small as a postage stamp, others as large as a jeep—as well as human team members. Swarms will also need to be able to break up into sub-units to search a building and then recombine once they have done so, all in a hostile environment.

Such things are the goals of DCIST. The first tranche of grants to these ends, some \$27m of them, has already been awarded to the University of Pennsylvania, the Massachusetts Institute of Technology, the Georgia Institute of Technology and the University of California, Berkeley. When DCIST itself wraps up, probably in 2022, the idea of Slaughterbots may seem a lot less fictional than it does now. ■

Geology and tourism

Pillars of salt

A way to predict sinkholes under spas near the Dead Sea

THE Dead Sea is, as its name implies, far too salty to be of use to fishermen or farmers. But its mineral-rich waters are valued by the owners of the spas that thrive along its shores in Israel, Jordan and the Palestinian territory of the West Bank. The spa industry, however, faces a threat from a plague of sinkholes that have struck in recent years. These have damaged roads and buildings at Ein Gedi beach, in Israel, and hit the Mineral Beach Spa in Mitzpe Shalem, an Israeli settlement in the West Bank, so hard that it is unusable.

Until now, it has been impossible to predict more than a few weeks in advance where a sinkhole will appear. But, as he reports in *Geology*, Meir Abelson of the Geological Survey of Israel thinks he can change that. Employing buried monitoring devices, he believes he can forecast where such holes will form several years before they actually do so.

Most of the more than 6,000 sinkholes that have struck the west coast of the Dead Sea recently are the result of that sea being starved of water as the rivers flowing into it ▶▶

▶ have their contents extracted for human use. This has caused the sea's level to fall and the pressure it exerts to diminish. That drop in pressure is felt in the surrounding rocks, which are often porous and water-filled. The rocks are a battleground between salt water from the lake and fresher water from elsewhere—a battle that, because of the pressure drop, the fresher water is winning.

When this incoming water makes contact with the extensive underground rock-salt formations that surround the Dead Sea, it dissolves them. That creates cavities which, if they grow too large, eventually fail to support the rock layers above. The consequence is the sudden collapse of those layers into a hole in the ground, taking anything on the surface with them.

A technique called interferometric synthetic-aperture radar can give a few weeks' notice of such a collapse. It permits researchers to spot subtle signs of subsidence that often presage a sinkhole's formation. This grants enough time to evacuate the site, but not enough to plan the relocation of an extensive spa facility. Dr Abelson, though, speculated that the disintegration of the rock-salt formations which creates the holes might cause minor tremors well in advance of a collapse.

To determine whether this was so, he and a team of colleagues drilled, in 2012, five small boreholes around Mineral Beach. They then placed sensors into each borehole, at depths ranging from 11 to 25 metres. These sensors, called geophones, recorded movements of the earth and transmitted their data regularly to a nearby monitoring station.

During the two months in which they operated Dr Abelson's geophones detected 82 seismic events, of which 75 came from the surface layers rather than being a result of the movement, deeper under-

First contact?

Greetings, Earthlings

A group of scientists wonder if an extrasolar visitor is an alien spacecraft

'OUMUAMUA, an object tumbling through space that was discovered on October 19th, has already made history. The speed at which it is moving relative to the sun means that it cannot be native to the solar system. Its official designation is thus 11/2017 U1, with the "1" standing for "interstellar"—the first time this designation has ever been used.

That is exciting. Some scientists, though, entertain an even more exciting possibility: what if 'Oumuamua is not an asteroid, as most think, but an alien spacecraft? Asteroids come in all sorts of shapes and sizes, but 'Oumuamua seems particularly odd. As best as astronomers can tell, it is cigarlike, being roughly 180 metres long but only about 30 metres wide. That makes it more elongated than anything known of in the solar system. Such a shape would be a sensible choice for a spaceship, since it would minimise the scouring effect of interstellar dust.

With that in mind the Breakthrough Listen project, an organisation dedicated

to hunting for alien life, plans to turn the world's biggest steerable radio telescope, the Green Bank instrument in Virginia, towards 'Oumuamua to see if it can hear anything interesting. 'Oumuamua is currently about twice as far from Earth as Earth is from the sun. At that range, the telescope should be sensitive enough to pick up a transmitter about as powerful as a mobile phone after just a few seconds-worth of observations.

Will it find anything? Almost certainly not. 'Oumuamua has the same reddish colour as many asteroids, so presumably has a similar composition. And, if it really is a spaceship, it is odd that signs of its artificial origin have not been seen already—and also odd that it is tumbling. It could, in theory, be a derelict. But in that case the telescope is unlikely to hear anything. By far the most likely option is that it is exactly what it seems to be: an itinerant hunk of space rock, albeit one that has come to the solar system from the vast voids between the stars.

ground, of tectonic plates. Crucially, he and his colleagues were able to use the slightly staggered arrival times at different geophones of these tiny tremors to locate each tremor's epicentre. This let them make a map of Mineral Beach that showed where the crust was beginning to buckle because of cavity formation below. They then waited and watched, to see if the epicentres were at places where sinkholes subsequently formed.

The first such collapse was in 2014, a little more than two years after the team had detected a series of small tremors emanating from that very spot. Seven additional sinkholes formed in 2016. Again, they were in places where the researchers had detected clusters of tremors during their two months of monitoring. Not all of the tremors they recorded have yet been followed by the formation of sinkholes. But, crucially, all the sinkholes that have formed so far have been at the epicentres of tremors.

That observation argues for the installation of permanent geophone networks in tourist areas around the Dead Sea. Indeed, tracking changes in the rate and strength of tremors, before any distortion of the ground detectable by radar shows up, may provide information about when a sinkhole might be expected to form, as well as where. That would give building owners more notice of problems, permitting them to move facilities in good time.

Nor is the Dead Sea the only place where Dr Abelson's system has the potential to do good. Several states in America, including Florida and Missouri, have large swathes of land sitting on top of rock salt and other materials that easily wash away and generate sinkholes as a result. Indeed, southern Missouri has seen over a hundred sinkhole collapses since 2007, and would benefit greatly from having means in place to detect when and where they are likely to happen. ■



Sunk costs

How fish sustain forests

Size really matters

Among fish, big individuals do most to help habitats

FOR anglers nothing beats catching a big fish. Commercial fisherfolk also prefer to haul in big specimens. Unfortunately, in recent years, research has shown that selectively capturing the largest fish has worrying ecological consequences. In some species the large ones are the healthiest ones, and so the ones most likely to breed successfully. In others they are the oldest, and so the most experienced at eluding predators or securing resources, such as food and breeding sites. In tropical wetlands, such as the Pantanal and Amazon regions of Brazil, the largest fish are also vital in dispersing seeds—and thus maintaining

and regenerating habitat.

Trees in these areas fruit most prolifically during the summer, when local rivers burst their banks and flood the land, making those fruit available to fish, which gladly gobble them up. Then, as the fish swim around the floodplain, they pass the seeds inside those fruit, which often remain intact, as part of their faeces. These seeds are thus distributed far and wide. Researchers have found that the most effective distributors are the biggest ones. Because they have bigger bellies they eat more, and because they have wider mouths they are more likely to swallow seeds whole rather than chew them up, as smaller fish might.

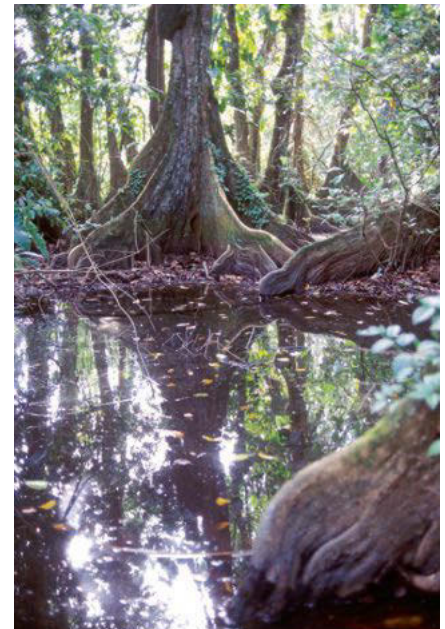
Many studies of seed-eating fish have thus looked at large species. Yet small fish also distribute seeds, especially small seeds, according to a review of the scientific literature just published in *Biotropica* by Raul Costa-Pereira and his colleagues at São Paulo State University. That led Mr Costa-Pereira to speculate about the role of large specimens in populations of smaller

fish. This matters, because when stocks of larger species are depleted commercial fishermen often start “fishing down” the food chain to capture smaller ones.

The researchers therefore monitored the seed-eating behaviour of tetra fish, which grow to a length of 12cm, and freshwater sardines, which make 18cm. Since both species patrol areas where trees drop ripe fruit during the flood season, and both are also caught by fishermen when they approach their maximum size, Mr Costa-Pereira speculated that selective fishing of the largest tetra and sardines would reduce the number of intact seeds that the animals would later defecate.

The team collected a sample of fish on the Miranda river flood plain in the Pantanal, measured the lengths of their specimens and the gapes of their jaws with callipers, and then analysed the animals’ gut contents under a microscope. They found that 63% of seeds counted in the guts of the freshwater sardines had been destroyed by chewing, and 22% of those in tetras had suffered the same fate. Crucially, they also found, for both species, that the number of intact seeds did indeed increase with the size of the fish they came from.

Mr Costa-Pereira therefore believes that the same rule applies to small fish species as to big ones—namely, the largest individuals play the biggest role in distributing seeds. This, he suggests, needs to be considered when catch limits are set. The catching of small species, which are used not only as food for people but also to feed animals and as bait, is often less regulated than the catching of large ones. Intensive fishing can rapidly deplete the number of smaller fish. If the biggest individuals go first, there could be repercussions for the wider ecology of a flood plain. ■



Big fish, big trees

Air travel

When push comes to shove

Motorised nose wheels will let planes leave the gate by themselves

THE frustrations of air travel are many and varied: enduring the scrum to board; rummaging for room in the overhead lockers; waiting patiently for “the last two remaining passengers” to be extracted from the shops. After all that, those on the aircraft often find that it has failed to push back from the gate in time to meet its take-off slot. Because, under their own power, planes can only go forward, they rely on a tug when reversing from a gate. If such is not available, has lost its driver or has broken down, at the gate the plane must stay.

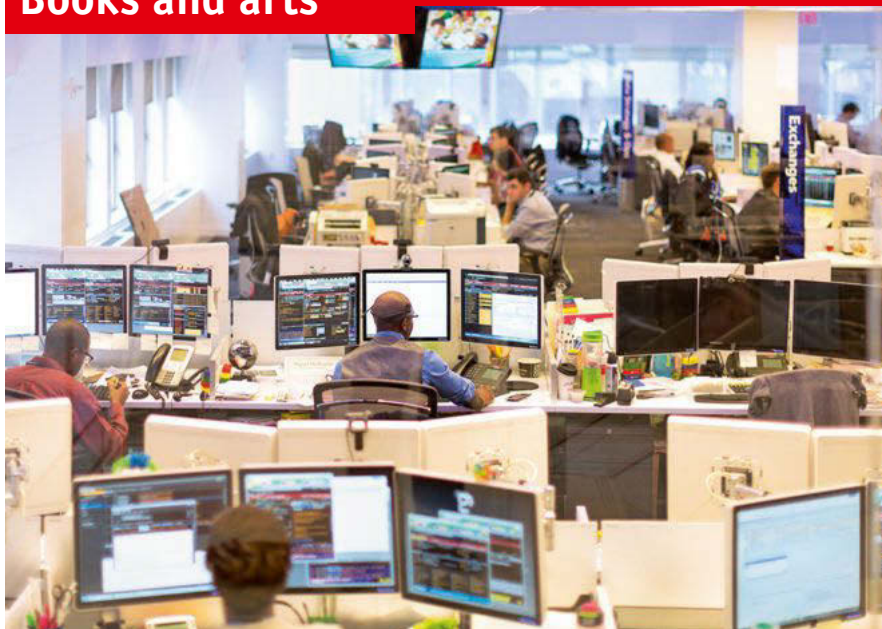
This may soon change, though. WheelTug, a company in Gibraltar, has spent over a decade developing electric motors to drive an aircraft’s nose wheel. This month it employed Stirling Dynamics, an engineering firm in Bristol, England, to help prepare the device for certification by air-safety authorities. It has tested a prototype and hopes its motorised wheels will be available in 2019 for fitting onto versions of the Boeing 737, and later onto other aircraft. The company says 22 airlines are already keen.

In theory, planes could leave gates using the reverse-thrust baffles deployed to slow them during landing. This, though, would mean revving the engines up so much that it would be safe neither for ground staff nor for other aircraft in the vicinity. So, some sort of system would still be needed to manoeuvre

aircraft when they were near the terminal. Motorised nose wheels are just that, says Isaiah Cox, WheelTug’s boss. Using them planes could push back and taxi to the runway with their engines ticking over. This would, Mr Cox says, reduce noise, save fuel and cut emissions.

The WheelTug incorporates the elements of an electric motor, such as the stator and the rotor, inside the hub of each of the 737’s twin nose wheels. Instead of a battery, these motors draw current directly from the auxiliary power-unit, a small generator in the rear of an airliner that is used on the ground to run its electrical services. For a long taxi, they can also take power from the generators driven by the aircraft’s jet engines.

A rival idea is the TaxiBot, developed by Israel Aerospace Industries. This is a semi-autonomous tug with a hybrid diesel-electric motor that is controlled directly by a plane’s pilot, who can use it to drive the aircraft from the gate to the runway with the jet engines switched off. The TaxiBot is already used at Frankfurt airport, but means planes still rely on the services of another machine. A motorised nose wheel provides independence, although it also adds weight—and therefore increases fuel consumption. But the value of the time saved by faster push-backs would more than compensate for that. Passengers do not mind how they depart, as long as they do so promptly.



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Economics

Capital in the 21st century

Businesses' investment decisions can have huge, unexpected consequences

RICH economies are full of puzzles. What has caused them to become so unequal? Why is their rate of business investment so low? When will real wages start growing strongly again? In "Capitalism without Capital" Jonathan Haskel of Imperial College London and Stian Westlake of Nesta, a think-tank, offer an intriguing explanation for all these problems. In the process, they introduce a phrase that readers may hear a great deal more of in the coming years: "intangible investment".

When people think about business investment, they tend to think of spending on real things, like factories, computers and machines. Yet Messrs Haskel and Westlake point out that such investment matters less and less to modern economies. Instead, they argue, investment in intangible assets—things you cannot drop on your foot—is more important. Intangible investment can include design, research, software and branding. It is a fundamentally different sort of investment, and one that has serious consequences.

The book makes its case in a lighthearted, conversational way that will appeal to economists and non-economists alike. The authors keep jargon to a minimum. Their writing has few numbers, let alone equations. Multiple case-studies bring the arguments to life. Nonetheless, this is no beach read. The authors draw on a range of rigorous research and include their own calculations to show that intangible investment

Capitalism without Capital: The Rise of the Intangible Economy. By Jonathan Haskel and Stian Westlake. *Princeton University Press*; 278 pages; \$29.95 and £24.95

is on the increase. One study suggests that in 1948, American intangible investment accounted for about 4% of non-farm business-sector output. By 2007 this had grown to 14%. Tangible investment hovered around the 11% mark over the period. Another estimate found that Microsoft's physical assets accounted for just 1% of its market value. The expertise of Microsoft's engineers and the code they used were far more important.

However, the significance of intangible assets is often poorly reflected by statisticians. Official economic data do include some intangible activity, such as spending on software, in measures of investment spending, but often exclude many others, such as branding. American company accounts often omit R&D from measures of their investment spending. But including intangible assets can have a big impact.

It is often said, for instance, that British businesses invest little compared with those in other countries. Yet Britain is an intangible-rich economy, full of scientific firms and design studios. Once intangibles are included, Britain looks less of a laggard. (Data still suggest that across the rich world

overall investment has fallen since the financial crisis of 2008-09.)

Messrs Haskel and Westlake do not simply recommend improvements in statistics, but also explain the significance of intangibles. They argue that intangible investment has a number of special properties, which will make themselves felt as this sort of investment becomes more important. While the authors may overstate the novelty of some of their ideas, they combine them in a new way.

For one, intangible investment is "scalable". Businesses which use intangible assets can grow more rapidly, and to greater sizes, than those using tangible ones. A family-run taxi firm that owns a fleet of cars cannot easily grow; doing that requires them to expand their fleet, at great cost. By contrast Uber, a car-hailing app, which owns few of the cars that use its platform, can export its code across the world.

Intangible investment also exhibits large spillover effects, argue Messrs Haskel and Westlake. A business investing in a factory, a form of tangible investment, can easily prevent its competitors from taking advantage of that investment (say, by putting a guard at the gate). Excluding rivals from profiting from your intangible investments is harder. Software developers use online repositories such as GitHub to share code. Steve Jobs, a former boss of Apple, was known to grouse that Google's Android operating system was hardly different from Apple's iOS.

The scalability and spillovers associated with intangible investment may help explain some of the big puzzles of advanced economies. In recent years, the gaps between the most successful firms and the weakest among them ("frontier firms" and "laggards", in the jargon) have widened in everything from wages to profits. Whereas 1% of British firms have seen ►►

▶ annual productivity growth of 6% in recent years, a third have seen none at all since 2000.

Why is this? Frontier firms increasingly rely on intangible investment, so they easily spread their ideas across the world, reaping big rewards. But laggard firms, perhaps largely relying on tangible investment, cannot. Most of the rise in income inequality in rich countries, the authors point out, can be attributed to growing inequality between firms, rather than within them.

The rise of intangible investment may also explain why, since the financial crisis, there have been high rates of profitability and relatively low rates of business investment. If returns on investment are so high, then why is investment so weak? With the idea of spillovers in your head, it becomes

easier to understand. Laggards may have little incentive to invest, since they are worried that frontier firms will gobble up their innovations. That can bring down the overall rate of investment and thus productivity (and wage) growth. The frontier firms, however, are happy to invest. They make high returns in part because they have the expertise to make the most from such investment and in part because they are less concerned about smaller firms stealing their ideas (the local taxi firm cannot hope to copy Uber's algorithms).

At times, the reader may feel that the book oversells its case. The authors seem to believe that intangibles can explain pretty much anything, from high levels of executive pay to the election of President Donald Trump. It could also have been bet-

ter edited: it offers twice in the space of three pages, for instance, Peter Thiel's observation that it is easier for Twitter to scale up than it is for a yoga studio.

Yet the book also has a deeply practical streak. It offers policymakers advice on how to help the intangible economy thrive. If not enough intangible investment is provided by the market, governments could step in. They should ensure that digital infrastructure—broadband and the like—is top-notch. Governments need to encourage people to live in cities; sensible planning regulation is thus vital. Policies such as these are all well and good, but after putting down the book the reader is left with another sobering thought. The economy is becoming winner-take-all, and will become ever more so. ■

The history of New York

Bigger and bigger

Greater Gotham: A History of New York City from 1898 to 1919. By Mike Wallace. *Oxford University Press*; 1,196 pages; \$45 and £35

NEW YORK has never been a city to do things by halves. And so it is perhaps not surprising that on New Year's Eve, 1897, the metropolis became—overnight—twice as large as any other city in America, and the second-largest city in the world. "Consolidation", as it was called, united New York and Brooklyn, Queens, the Bronx and Staten Island under the new blue-and-white flag of Greater New York. "Greater Gotham" traces, at both epic and intimate scale, the ramifications of that consolidation until just after the end of the first world war.

If nearly 1,200 pages seems excessive for a book that covers a mere 22 years, perhaps a little history of the book itself is in order. In 1999 "Gotham: A History of New York City" was awarded the Pulitzer prize, and rightly so; in it Mike Wallace and his co-author, Edwin Burrows, began with the island of Manna-hata's earliest inhabitants to trace the story of the metropolis to the end of the 19th century. Now Mr Wallace, a historian at the City University of New York, has struck out on his own for this long-awaited follow-up, a volume which more than does justice to its predecessor.

"Greater Gotham" begins with the comfortable self-aggrandising which the rest of the world believes (not incorrectly) characterises New Yorkers. Mr Wallace describes the consortium of political and business interests who worked for consolidation in order to propel a concatenation of prosperous communities into an

unstoppable engine of capitalism. Spoiler alert: they succeeded. By 1919 "Greater Gotham" was "a colossal fact", as Mr Wallace writes, the italics his own. "It had the planet's tallest skyscraper, its biggest office building, and its largest department store, hotel, corporate employer, bankers club, steamship fleet, electrical-generating plant, bakery, ballroom..." The list goes on and on.

But New York's economic growth is just a fraction of the city's tale. Mr Wallace aims to include just about every aspect of metropolitan life, which means that the book rewards the reader who wishes to dip in and out as much as the one who ploughs the whole way through. Individual chapters address transport, housing, culture, show business and more. The book then turns to people, focusing just as much on the indefatigable men and women—and there were many women—who fought for the rights of New York's poorest citizens as it does on the plutocrats who oversaw Gotham's growth.

Throughout, Mr Wallace's lively style turns an invaluable work of reference into a gripping read. His swift portraits of New York's heroes and villains are vivid and memorable. And like every great work of history, his book casts light on the present: he writes lucidly, for example, of Puerto Rico's economic travails in the aftermath of the Spanish-American war, his account of American colonialism still resonant in 2017. The book is enriched by those who lived in tenements, skyscrapers or Fifth Avenue palaces. Like the city itself, "Greater Gotham" contains multitudes.



Fishing

The bounty below

Fishing: How the Sea Fed Civilisation. By Brian Fagan. *Yale University Press*; 368 pages, \$30 and £25

THROUGHOUT history, often for religious reasons, humans have tended to believe the oceans are inexhaustible. An Egyptian pharaoh was assured by his father in about 2100BC that the gods had made fish for humans to eat. Likewise, Christianity encouraged the faithful to consider the products of both sea and land as intended by God for human use: an infinite bounty. Only with the advent of a vast, industrialised fishing industry, and the damage and depletion it has caused, has it become clear that this assumption has been a disastrous mistake.

With the advent of arable and animal agriculture, fishing alone, of the three ancient ways of obtaining food—the other ▶▶

▶ two being hunting and plant foraging—has remained vital to human civilisation. It seems astonishing that a pursuit so fundamental to human society has lacked a comprehensive historian for so long. Brian Fagan's is the first general survey of its kind, and it is packed with intriguing details (like the Chinese training cormorants to catch fish for them) as well as with persuasive generalisation.

One of the barriers has been the near-invisibility of fishing's past role. Fishers have always been secretive by nature: "anonymous folk", unlikely either to discuss profitable grounds or to leave much trace in the historical record. The perishability of most of their equipment has also left only a small archaeological mark. Complex societies and massive projects—from the Pyramids in Egypt to Angkor Wat in Cambodia—have depended upon a vast "anonymous background" of mobile food producers who foraged, hunted and fished, depending on the season and on which edible organisms were available.

Modern science has magnified the information obtainable from tiny clues, and it is often by focusing on these that Mr Fagan is able to paint a picture that is satisfying, if necessarily at times impressionistic and informed by guesswork. He describes, for instance, how the isotopic signature of fish bones reveals where the fish lived, and hence whether or not the fishing was local. He also explains how fishbone analysis, by divulging the approximate age of fish caught, has found signs of population depletion and overfishing (as older fish died off and reliance on younger, smaller, less fertile fish increased). And he shows how analysis of human bones reveals that family diets often differed; that ancient cultures, in other words, were often quite inegalitarian.

Throughout, discussion of past overfishing or earlier climate change—"palaeoclimatology"—hangs heavy with the question of the impact on human society both of overfishing and of global warming. Modern climate scientists face precisely the same limited but influential denial as did those who first argued in favour of husbanding, and trying to preserve the oceans' fish stocks.

"Fishing" is a valuable book as well as an interesting one. It shows vividly how human civilisations have depended on harvests from the sea, just as they did on harvests from the fields. At times, it strays beyond what might appeal to the general reader: an abundance of references to "macrozooplankton", or to a "site known as SCRI-109" made this non-specialist feel that the water was occasionally too deep. In general, though, Mr Fagan succeeds in providing an admirable primer for the enthusiast and a welcome tool for the historian—as well as a salutary reminder of the lessons of inaction. ■

American prisons

Lockup nation

Blind Injustice: A Former Prosecutor Exposes the Psychology and Politics of Wrongful Convictions. By Mark Godsey.

University of California Press; 264 pages; \$29.95 and £24.95

Inside Private Prisons: An American Dilemma in the Age of Mass Incarceration.

By Lauren-Brooke Eisen. Columbia University Press; 336 pages; \$32. To be published in Britain in January; £26.95

NO COUNTRY imprisons a larger share of its people than America. Its incarceration rate—693 of every 100,000—is nearly five times Britain's, six times Canada's and 15 times Japan's. And that rate masks huge variations: Washington, DC, Louisiana and Georgia each lock up more than one in every 100 residents. Why?

"Blind Injustice" tries to answer that complex question from an unusual perspective. The author, Mark Godsey, used to be a federal prosecutor in New York. He went on to co-found the Ohio Innocence Project, which works to free the wrongly convicted. His book is about how his career change also changed his outlook, by showing up "problems in the system that I, as a prosecutor, should have seen, but about which I had simply been in denial".

And it is about the police and prosecutors who uphold that system—the "normal, regular people...who would help an old man cross the road, or who would shovel the snow from a sick neighbour's driveway, [but who] go back to their offices and commit acts of heartbreaking, callous injustice...because they are operating under a bureaucratic fog of denial." Each of

Mr Godsey's six central chapters centres on a different systemic flaw: denial, ambition, bias, memory, intuition and tunnel vision.

People in all fields, of course, commit these deeply human sins. Tunnel vision, conformity born of a desire to please bosses and not to rock the boat, answering difficult questions not by trying to work out the right answer but by determining what is best for your team: such behaviour is not unique to America's criminal-justice system. But for police and prosecutors, it can deprive people of their liberty and lives. Last month, for instance, Wilbert Jones left a prison in Baton Rouge, Louisiana, after almost 46 years. A judge threw out his conviction for rape because the prosecution failed to turn over to the defence evidence that might have helped his case (the state is appealing). Mr Jones entered prison at 19; he is now 65.

Mr Godsey's work is memorable because he is able to show precisely how these flaws work in action. He describes prosecutors routinely denying requests to give inmates DNA tests, even though these could help free them. Prosecutors think of themselves as the good guys and, therefore, their opponents as bad. This leads to routine dehumanisation, such as when prosecutors in Chicago competed in a "two-ton contest" to see who could be the first to indict 4,000lb of human flesh (which led prosecutors to be especially hard on overweight defendants).

He is particularly—and with good reason—tough on elected judges, who know that being "tough on crime" will always win more votes than promises of sober fairness and probity; and on forensic science, a contributing factor in nearly half of all wrongful convictions (second only to false eyewitness accounts). He ends the book on a hopeful note, though. States across the country are implementing some of the changes he recommends. These include recording interrogations, standardis-



Layers of uniformity

ing eyewitness-identification procedures, expanding access to post-conviction DNA testing and, perhaps most important, opening conviction-review boards inside prosecutors' offices, to investigate post-conviction claims of innocence.

If Mr Godsey focuses on how people are unjustly jailed, Lauren-Brooke Eisen, a former lawyer now at New York University, has written a deeply researched, scrupulously fair book about private prisons, which house 126,000 people in America, or 7% of state inmates and almost 18% of federal prisoners. They are opaque in a way that state prisons are not; despite the

book's title, Ms Eisen barely manages to get inside a private prison.

Some liberals cast private prisons as a driver of mass incarceration. Their business model is built around it and, as Ms Eisen notes, they have lobbied for policies that have helped them. Some feel that profiting from other people's incarceration is inherently immoral, or that it violates constitutional protections against involuntary servitude and cruel and unusual punishment.

But Ms Eisen convincingly argues that they are a symptom, rather than a cause, of America's over-punitive, carceral state.

Private prisons took off because governments could not build prisons quickly enough to hold all the people they sentenced. Now private-prison firms are diversifying with the times by building treatment centres and electronic-monitoring services as America's justice system explores alternatives to imprisonment. Some may find it depressing that these firms are simply looking for another way to profit from society's unfortunates. But it also shows that these companies respond to political demand, and that the best way to do away with private prisons is to lock up fewer people. ■

Johnson | The conversation machine

"Um", "uh", "mm-hmm" and interruption are not killers of conversation, but its lubricants

MARGARET THATCHER was known for a voice that brooked no disagreement. While still in opposition, she had taken elocution lessons to sound more forceful. Despite this, she was often interrupted in interviews as prime minister, and in 1982, three researchers set out to understand why. They played clips from one of her interviews to a variety of people. The clips included segments that ended in interruption (while editing out the interruptions themselves). More often than not, those hearing the interrupted phrases thought that the prime minister was ending her conversational turn. It seems her interviewer had come to a similar conclusion.

Why? Conversation, it turns out, is a finely tuned machine, as Nick Enfield, a linguist at the University of Sydney, suggests in "How We Talk". Humans mostly follow a rule called "no gap, no overlap", reacting to the end of a conversational turn by beginning their own in about 200 milliseconds—about the time it takes a sprinter to respond to the starting gun. This is all the more remarkable given that it takes about 600 milliseconds for someone to work out what they are going to say by mentally retrieving the words and organising how they are to be expressed.

People, therefore, must plan to begin speaking before their conversation partner has stopped. That requires a fine attention to the cues signalling the end of a turn, such as a lengthening of syllables and a drop in pitch. As it happens, using a downward shift of pitch is also a frequent piece of advice given to those who want to sound more authoritative—like Thatcher. The researchers studying the times she was interrupted found precisely that a sharp drop in her pitch accurately predicted an interruption.

Contrary to popular assumptions,



many dynamics of the "conversational machine" are similar from culture to culture, something that Mr Enfield demonstrates by looking at both big and small languages in rich and poor countries alike. For example, take "no gap, no overlap". The cross-cultural differences in this timing are small, and not always what stereotypes would suggest. Though the Japanese are often said to be polite, they have one of the shortest gaps before starting conversational replies. In answering "yes" or "no" to a question, the Japanese, on average, even reply before the questioner's turn is over.

This is not because the Japanese are rude. Quite the opposite. Answering quickly moves the conversation along. In general, two people speaking try to help each other. And to a remarkable degree, they succeed. Take some of the words that are generally considered conversational detritus: "uh", "um" and "mm-hmm". "Uh" and "um" signal to the other speaker

that a turn is not quite finished, that the speaker is planning something more. This makes sense only in the light of the split-second timing with which speakers take turns. Men use these pause-fillers more than women, being perhaps more eager to hold the floor. (For unknown reasons they prefer "uh", and women, "um".) Those who tend not to use "um" and "uh" often just replace it with something else, like "so", much derided as meaningless at the beginning of a statement.

Like "um" and "uh", humble "mm-hmm" and "uh-huh" are critical too. Listeners use them to show they have understood the speaker and are sympathetic. To show their importance, researchers concocted a devilish experiment in which speakers were asked to tell about a near-death experience, while listeners were given a distracting task like pressing a button every time the speaker used a word starting with "r". As a result, the listener was less able to encourage the speaker with "mm-hmm". This drove the speakers themselves to distraction. They paused more, used more "um" and "uh" themselves, and repeated the dramatic lines of their stories, desperate for affirmation that they had been understood.

Cicero wrote a set of rules of conversation, which included taking turns and not going on too long. He thought he was the first to do so, but his rules have been rediscovered in culture after culture. They may be part of human beings' shared social instincts, a product of evolution. So, next time you find yourself in conversation with a bulldozer or a bore, you might feel sorry for them, rather than for yourself. They are lacking a basic human skill. From a certain point of view, what is fascinating about conversation is not how hard it is, but how well people subconsciously co-operate to make it seem easy.

Economic data

% change on year ago

	Gross domestic product			Industrial production latest	Consumer prices		Unemployment rate, %	Current-account balance		Budget balance % of GDP 2017 [†]	Interest rates, % 10-year gov't bonds, latest	Currency units, per \$	
	latest	qtr* 2017 [†]	2017 [†]		latest	2017 [†]		latest 12 months, \$bn	% of GDP 2017 [†]			Dec 13th	year ago
United States	+2.3 Q3	+3.3	+2.2	+2.9 Oct	+2.2 Nov	+2.1	4.1 Nov	-460.9 Q2	-2.5	-3.5	2.42	-	-
China	+6.8 Q3	+7.0	+6.8	+6.1 Nov	+1.7 Nov	+1.6	4.0 Q3 [§]	+118.2 Q3	+1.3	-4.3	3.95 ^{§§}	6.62	6.90
Japan	+2.1 Q3	+2.5	+1.5	+5.9 Oct	+0.2 Oct	+0.5	2.8 Oct	+198.8 Oct	+3.5	-4.4	0.03	113	115
Britain	+1.5 Q3	+1.6	+1.5	+3.5 Oct	+3.1 Nov	+2.7	4.3 Sep ^{††}	-128.9 Q2	-4.0	-3.0	1.26	0.75	0.79
Canada	+3.0 Q3	+1.7	+3.0	+4.0 Sep	+1.4 Oct	+1.5	5.9 Nov	-45.8 Q3	-2.9	-1.7	1.84	1.29	1.31
Euro area	+2.6 Q3	+2.4	+2.2	+3.7 Oct	+1.5 Nov	+1.5	8.8 Oct	+386.9 Sep	+3.1	-1.3	0.32	0.85	0.94
Austria	+3.2 Q3	+1.4	+2.7	+3.7 Sep	+2.2 Oct	+2.1	5.4 Oct	+6.1 Q2	+2.2	-1.0	0.44	0.85	0.94
Belgium	+1.7 Q3	+1.0	+1.7	+5.9 Sep	+2.1 Nov	+2.2	6.9 Oct	-5.3 Jun	-0.3	-2.1	0.58	0.85	0.94
France	+2.2 Q3	+2.2	+1.8	+5.5 Oct	+1.2 Nov	+1.1	9.4 Oct	-27.2 Oct	-1.5	-2.9	0.64	0.85	0.94
Germany	+2.8 Q3	+3.3	+2.4	+2.7 Oct	+1.8 Nov	+1.7	3.6 Oct [†]	+279.0 Oct	+7.9	+0.6	0.32	0.85	0.94
Greece	+1.3 Q3	+1.2	+1.3	+0.4 Oct	+1.1 Nov	+1.1	20.6 Aug	-0.8 Sep	-0.6	-0.8	4.23	0.85	0.94
Italy	+1.7 Q3	+1.4	+1.5	+3.1 Oct	+0.9 Nov	+1.4	11.1 Oct	+52.1 Sep	+2.6	-2.3	1.78	0.85	0.94
Netherlands	+3.0 Q3	+1.8	+3.2	+3.9 Oct	+1.5 Nov	+1.3	5.4 Oct	+76.0 Q2	+9.7	+0.4	0.41	0.85	0.94
Spain	+3.1 Q3	+3.1	+3.1	+7.0 Oct	+1.6 Nov	+2.0	16.7 Oct	+23.4 Sep	+1.4	-3.0	1.46	0.85	0.94
Czech Republic	+4.7 Q3	+1.9	+4.5	+10.4 Oct	+2.6 Nov	+2.5	2.6 Oct [†]	+1.7 Q2	+0.7	-0.1	1.42	21.8	25.4
Denmark	+1.2 Q3	-2.6	+2.2	+0.2 Oct	+1.3 Nov	+1.1	4.3 Oct	+27.6 Oct	+8.3	-0.6	0.42	6.33	6.99
Norway	+3.2 Q3	+3.0	+2.1	-4.2 Oct	+1.1 Nov	+2.0	4.0 Sep ^{††}	+21.1 Q3	+5.0	+5.2	1.54	8.37	8.41
Poland	+5.1 Q3	+4.9	+4.6	+12.3 Oct	+2.5 Nov	+1.9	6.6 Nov [§]	-0.4 Sep	-0.3	-3.3	3.24	3.58	4.18
Russia	+1.8 Q3	na	+1.9	-0.1 Oct	+2.5 Nov	+3.8	5.1 Oct [§]	+36.9 Q3	+2.3	-2.1	8.13	58.8	60.7
Sweden	+2.9 Q3	+3.1	+3.0	+6.0 Oct	+1.9 Nov	+1.9	6.3 Oct [§]	+21.1 Q3	+4.4	+1.0	0.70	8.45	9.15
Switzerland	+1.2 Q3	+2.5	+0.9	+8.7 Q3	+0.8 Nov	+0.5	3.0 Nov	+68.9 Q2	+9.7	+0.8	-0.11	0.99	1.01
Turkey	+11.1 Q3	na	+5.0	+8.9 Oct	+13.0 Nov	+10.0	10.6 Aug [§]	-41.9 Oct	-3.5	-2.0	12.21	3.83	3.50
Australia	+2.8 Q3	+2.4	+2.4	+3.5 Q3	+1.8 Q3	+2.0	5.4 Nov	-22.2 Q3	-1.4	-1.7	2.52	1.31	1.33
Hong Kong	+3.6 Q3	+2.0	+3.7	+0.4 Q2	+1.5 Oct	+1.6	3.0 Oct ^{††}	+15.2 Q2	+6.4	+1.7	1.87	7.81	7.76
India	+6.3 Q3	+8.7	+6.5	+2.2 Oct	+4.9 Nov	+3.4	5.0 2015	-33.6 Q3	-1.5	-3.1	7.18	64.5	67.5
Indonesia	+5.1 Q3	na	+5.1	+6.4 Oct	+3.3 Nov	+3.9	5.5 Q3 [§]	-13.3 Q3	-1.6	-2.8	6.50	13,588	13,308
Malaysia	+6.2 Q3	na	+5.8	+3.4 Oct	+3.7 Oct	+3.9	3.4 Sep [§]	+9.2 Q3	+2.5	-3.0	3.98	4.09	4.44
Pakistan	+5.7 2017**	na	+5.7	+2.6 Sep	+4.0 Nov	+4.1	5.9 2015	-14.5 Q3	-4.9	-5.9	7.93 ^{†††}	110	105
Philippines	+6.9 Q3	+5.3	+6.6	-6.6 Oct	+3.3 Nov	+3.2	5.0 Q4 [§]	-0.8 Jun	-0.3	-2.1	5.70	50.5	49.8
Singapore	+5.2 Q3	+8.8	+3.1	+14.6 Oct	+0.4 Oct	+0.6	2.2 Q3	+57.4 Q3	+18.3	-1.0	2.04	1.35	1.42
South Korea	+3.8 Q3	+6.3	+3.1	-5.9 Oct	+1.3 Nov	+2.1	3.2 Nov [§]	+81.9 Oct	+5.5	+0.8	2.45	1,091	1,167
Taiwan	+3.1 Q3	+6.8	+2.4	+2.8 Oct	+0.3 Nov	+0.6	3.7 Oct	+74.1 Q3	+13.6	-0.1	0.96	30.0	31.8
Thailand	+4.3 Q3	+4.0	+3.5	-0.1 Oct	+1.0 Nov	+0.5	1.3 Oct [§]	+46.9 Q3	+11.3	-2.5	2.33	32.6	35.6
Argentina	+2.7 Q2	+2.8	+2.8	-2.5 Oct	+22.3 Nov	+25.2	8.3 Q3 [§]	-19.7 Q2	-3.9	-6.1	5.53	17.3	16.0
Brazil	+1.4 Q3	+0.6	+0.8	+5.2 Oct	+2.8 Nov	+3.4	12.2 Oct [§]	-9.6 Oct	-0.7	-8.0	9.03	3.30	3.33
Chile	+2.2 Q3	+6.0	+1.4	+5.0 Oct	+1.9 Nov	+2.2	6.7 Oct ^{§††}	-4.6 Q3	-1.3	-2.7	4.68	647	651
Colombia	+2.0 Q3	+3.2	+1.7	-1.9 Sep	+4.1 Nov	+4.3	8.6 Oct [§]	-11.1 Q3	-3.7	-3.3	6.53	3,011	2,986
Mexico	+1.5 Q3	-1.2	+2.1	-1.1 Oct	+6.6 Nov	+5.9	3.4 Oct	-16.1 Q3	-1.9	-1.9	7.38	19.1	20.3
Venezuela	-8.8 Q4~	-6.2	-12.5	+0.8 Sep	na	+9.31	7.3 Apr [§]	-17.8 Q3~	-0.7	-19.4	8.24	10.6	10.0
Egypt	+4.9 Q2	na	+4.2	+25.0 Oct	+26.0 Nov	+26.8	11.9 Q3 [§]	-12.2 Q3	-6.4	-10.8	na	17.9	18.4
Israel	+2.1 Q3	+4.1	+3.6	+3.2 Sep	+0.2 Oct	+0.3	4.2 Oct	+10.7 Q2	+3.1	-1.3	1.77	3.54	3.80
Saudi Arabia	+1.7 2016	na	-0.7	na	-0.2 Oct	-0.3	5.6 2016	+7.0 Q2	+2.5	-7.2	3.68	3.75	3.75
South Africa	+0.8 Q3	+2.0	+0.7	+1.1 Oct	+4.6 Nov	+5.3	27.7 Q3 [§]	-7.9 Q2	-2.3	-3.9	9.22	13.5	13.6

Source: Haver Analytics. **% change on previous quarter, annual rate. [†]The Economist poll or Economist Intelligence Unit estimate/forecast. [§]Not seasonally adjusted. [†]New series. ~2014 **Year ending June. ^{††}Latest 3 months. ^{†††}3-month moving average. ^{§§§}5-year yield. ^{††††}Dollar-denominated bonds.

The Economist

EVENTS

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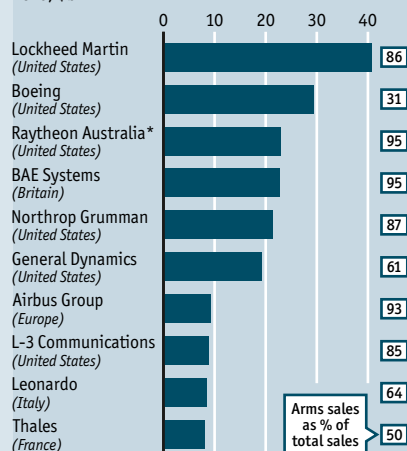
Markets

	Index Dec 13th	% change on		
		one week	in local currency terms	Dec 30th 2016 in \$ terms
United States (DJIA)	24,585.4	+1.8	+24.4	+24.4
China (SSEA)	3,459.3	+0.3	+6.5	+11.7
Japan (Nikkei 225)	22,758.1	+2.6	+19.1	+22.8
Britain (FTSE 100)	7,496.5	+2.0	+5.0	+13.5
Canada (S&P/TSX)	16,136.6	+1.4	+5.6	+10.1
Euro area (FTSE Euro 100)	1,232.7	+0.6	+10.9	+23.6
Euro area (EURO STOXX 50)	3,581.7	+0.6	+8.9	+21.3
Austria (ATX)	3,304.9	-0.3	+26.2	+40.7
Belgium (Bel 20)	4,002.2	+0.6	+11.0	+23.7
France (CAC 40)	5,399.5	+0.5	+11.0	+23.8
Germany (DAX)*	13,125.6	+1.0	+14.3	+27.4
Greece (Athex Comp)	749.8	+3.1	+16.5	+29.9
Italy (FTSE/MIB)	22,400.2	+0.4	+16.5	+29.8
Netherlands (AEX)	550.6	+1.4	+13.9	+27.0
Spain (Madrid SE)	1,036.5	+0.7	+9.9	+22.5
Czech Republic (PX)	1,059.9	+0.6	+15.0	+35.1
Denmark (OMXC20)	917.6	+1.6	+14.9	+28.0
Hungary (BUX)	38,228.2	+1.7	+19.5	+30.9
Norway (OSEAX)	888.8	+1.5	+16.2	+19.5
Poland (WIG)	62,548.0	+0.6	+20.9	+40.7
Russia (RTS, \$ terms)	1,141.5	+0.9	-0.9	-0.9
Sweden (OMXS30)	1,619.8	+1.5	+6.8	+14.7
Switzerland (SMI)	9,394.6	+0.9	+14.3	+17.4
Turkey (BIST)	108,153.1	+2.7	+38.4	+27.2
Australia (All Ord.)	6,103.1	+1.2	+6.7	+11.8
Hong Kong (Hang Seng)	29,222.1	+3.5	+32.8	+31.9
India (BSE)	33,053.0	+1.4	+24.1	+30.7
Indonesia (JSX)	6,054.6	+0.3	+14.3	+13.3
Malaysia (KLSE)	1,737.7	+1.1	+5.8	+16.2
Pakistan (KSE)	38,819.7	-2.7	-18.8	-22.7
Singapore (STI)	3,468.8	+2.1	+20.4	+28.8
South Korea (KOSPI)	2,480.6	+0.2	+22.4	+35.6
Taiwan (TWI)	10,470.7	+0.7	+13.2	+21.5
Thailand (SET)	1,706.9	+0.7	+10.6	+21.6
Argentina (MERV)	27,034.6	+2.1	+59.8	+46.1
Brazil (BVSP)	72,914.3	-0.5	+21.1	+19.5
Chile (IGPA)	25,780.7	+4.7	+24.3	+28.8
Colombia (IGBC)	11,098.4	+2.4	+9.8	+9.5
Mexico (IPC)	48,242.2	+2.7	+5.7	+13.9
Venezuela (IBC)	1,257.6	-7.1	-96.0	na
Egypt (EGX 30)	14,651.4	+2.1	+18.7	+20.4
Israel (TA-125)	1,323.7	+0.4	+3.7	+12.8
Saudi Arabia (Tadawul)	7,094.1	+1.0	-2.0	-1.9
South Africa (JSE AS)	57,344.4	-1.1	+13.2	+14.9

Arms sales

Sales of arms and military services by the world's 100 biggest defence companies came to \$374.8bn last year. Though sales rose by only 1.9%, that was the first annual increase since 2010, spurred by regional tensions and ongoing military campaigns. American and European companies dominate the industry, accounting for 82.4% of all arms sales, although domestic demand boosted sales by South Korean firms. Lockheed Martin was the world's largest arms company in 2016, with revenues from weapons sales of \$40.8bn (an increase of 10.7% on the year before). It was helped by more deliveries of its F-35 combat aircraft and the acquisition of Sikorsky, a helicopter-maker, at the end of 2015.

2016, \$bn



Source: SIPRI

*Subsidiary of US company

Other markets

	Index Dec 13th	% change on		
		one week	in local currency terms	Dec 30th 2016 in \$ terms
United States (S&P 500)	2,662.9	+1.3	+18.9	+18.9
United States (NASComp)	6,875.8	+1.5	+27.7	+27.7
China (SSEB, \$ terms)	337.4	+0.9	-1.3	-1.3
Japan (Topix)	1,810.8	+2.6	+19.2	+23.0
Europe (FTSEurofirst 300)	1,538.3	+1.2	+7.7	+20.0
World, dev'd (MSCI)	2,083.4	+1.2	+19.0	+19.0
Emerging markets (MSCI)	1,112.4	+1.0	+29.0	+29.0
World, all (MSCI)	506.3	+1.2	+20.0	+20.0
World bonds (Citigroup)	941.4	-0.6	+6.5	+6.5
EMBI+ (JPMorgan)	832.4	-0.2	+7.8	+7.8
Hedge funds (HFRX)	1,267.6 [†]	+0.8	+5.3	+5.3
Volatility, US (VIX)	9.8	+11.0	+14.0 (levels)	
CDSs, Eur (iTRAXX) [†]	47.8	-1.7	-33.8	-26.2
CDSs, N Am (CDX) [†]	50.6	-3.2	-25.3	-25.3
Carbon trading (EU ETS) €	7.1	-2.9	+7.4	+19.8

Sources: IHS Markit; Thomson Reuters. [†]Total return index.

[†]Credit-default-swap spreads, basis points. [‡]Dec 11th.

Indicators for more countries and additional series, go to: Economist.com/indicators

The Economist commodity-price index

2005=100

	Dec 5th		% change on	
	Dec 5th	Dec 12th*	one month	one year
Dollar Index				
All Items	146.0	143.2	-2.9	-0.7
Food	150.3	145.3	-3.2	-6.2
Industrials				
All	141.4	141.1	-2.6	+5.9
Nfa [†]	133.2	132.1	-0.8	-5.9
Metals	145.0	144.9	-3.2	+11.4
Sterling Index				
All items	197.3	195.6	-4.3	-5.5
Euro Index				
All items	153.4	151.8	-2.7	-10.0
Gold				
\$ per oz	1,263.7	1,237.7	-3.3	+6.7
West Texas Intermediate				
\$ per barrel	57.6	57.1	+2.6	+7.9

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

Featured speakers:



SOEHARTATI GONDHOWIARDJO
President, Federation of Asian Organizations for Radiation Oncology and president Indonesian Radiation Oncology Society



TRAN THI THANH HUONG
Vice-director National Institute for Cancer Control and vice-director Bright Future Fund Vietnam



LIM TECK-ONN
Vice-chairman Together Against Cancer Association Malaysia (TAC)

War on Cancer South-East Asia 2018

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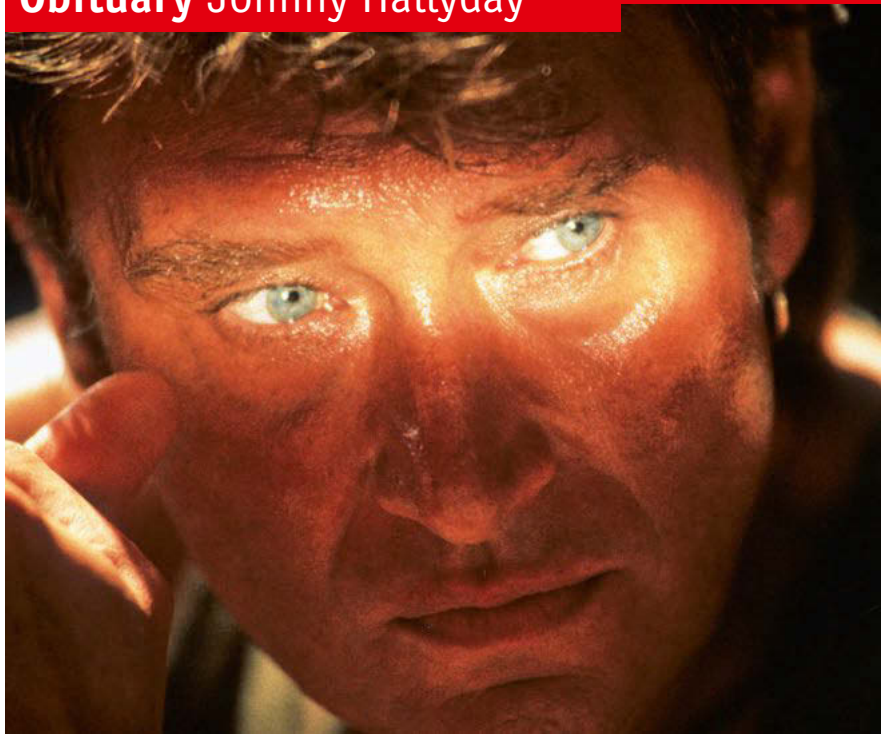
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A star for all seasons

Johnny Hallyday, France's answer to rock 'n' roll, died on December 6th, aged 74

THERE was something in his eyes. A mysterious, shifting, narrow look, almost too light-blue: of a cat who walked by himself, or of a man waiting in an alley with a cigarette, the collar of his black leather jacket turned up against the night. Or the look of a shape-shifting lizard which, with age and weathering, Johnny Hallyday increasingly resembled: living from day to day, adapting to every fashion, at home in no particular place.

He was France's version of a whole gamut of stars. James Dean first, with pout, quiff, jeans and guitar; then Elvis, *le roi du rock*; then Mick Jagger, shaggy-haired, strutting in tight leather trousers; then something like Engelbert Humperdinck, sweating freely, white shirt open to the waist. He could be whisky-wild like Jerry Lee Lewis, or a *chansonnier* in Charles Aznavour mode. He could imitate Jacques Brel, with whom he visited *bordels*, or Edith Piaf, who ran her hand up his thigh when he met her, or Jimi Hendrix, who astonished him by playing his guitar with his teeth. He could be anyone the French wanted, or anyone they wished they had produced themselves, and cover in French any Anglo-Saxon song they liked. In the process he sold 110m records, had more than 60 gold and platinum albums, and remained at the summit of national life for 58 years.

The French thought they knew him, since his many exploits marital and sexual, and his brushes with drugs and death, filled the pages of magazines for all that time. But the real Johnny seldom revealed himself. In interviews, the boyish smile alternated with the dead-eyed mask. The man up there on the stage, winched in by helicopter or raked by laser lights, was, he said, an actor playing the part of Johnny Hallyday. It was a good, serious part, letting him be whatever he or his fans dreamed of. But whenever he stopped working he was, as he had been born, Jean-Philippe Smet: half-Belgian, ordinary, and the reverse of his star-self. *Le gros Belge*, some friends called him. It was no coincidence that his best film, of the handful he made, was Patrice Leconte's "L'Homme du Train", in which he played the part of a bank robber who swapped lives with a retired teacher, ending up in delightful solitude in a book-lined study where, for the first time, he could wear slippers.

The fifth-columnist

Solitude did not trouble him. He was used to it, after a childhood that was fatherless and motherless, travelling round Europe with the dancer-cousins who informally adopted him. There was no fixed home or school; places and people were left be-

hind, new ones found, as necessary. His life-models were the rockers he heard on the radio, including Lonnie Donegan, a skiffle-player, whom he adored, and Tommy Steele, as well as the American greats. France had no music like that, and when he began to make records, still a teenager, he shot at once to stardom. In 1961 his first concerts led to riots in the streets; in 1963, 200,000 youngsters packed the Place de la Nation, and climbed up trees, to hear him. For a time his concerts were banned, which only increased his cachet.

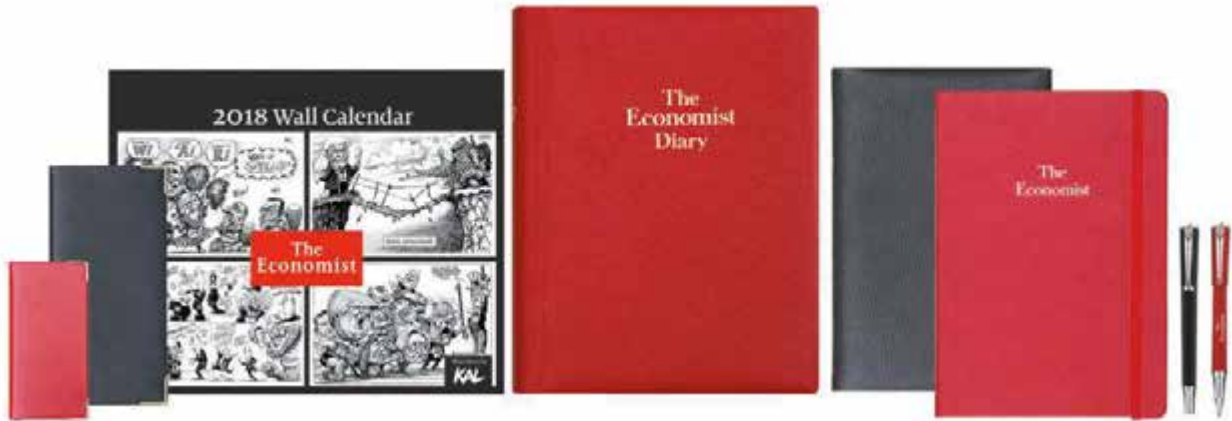
He was accused, too, of being a fifth-columnist for American cultural imperialism. A silly charge, since he forced the songs into (unsatisfactory) French, and since, in best French mode, he was swiftly intellectualised, compared to Victor Hugo and the existentialists. Yet his love of America ran deep, and not simply for musical reasons: he took his name from the American husband of a cousin, and his politics were of the right. In later years he spent half his time in Los Angeles, where his favourite *balade* was to ride his Harley into the desert and stay in small motels, adding spaghetti-Western cowboy to his characters. America never reciprocated, or noticed him in the street; it was hard, outside the Francophone world, to explain exactly what his point was.

The LA sojourns were part of his exile from France for tax reasons. Money matters vexed him, and he ended up chronically in debt to his record company, Universal, for loans it had made to him to help him scrape by, as well as €9m owing to the taxman. He determined not to return to France until the rich were no longer clobbered. In 2002, in full black leathers and with the Tricolore painted on those cheekbones, he sang "Allez les Bleus!" to urge on the national football team; four years later he found himself toying with citizenship of Belgium, or moving to Switzerland. France, he cried in his autobiography "Dans mes yeux", was a stifling place with a *sale mentalité*. He didn't miss it abroad, but felt good wherever he was; just as every time he sang "Que je t'aime", which he had performed a thousand times since 1969, he sang it with no weight of past association, but as a man might sing it to a woman he had only just met.

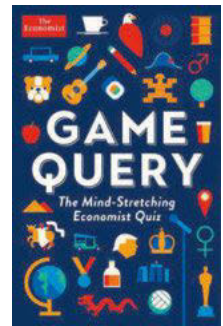
So when a million people jammed the centre of Paris for his funeral, singing his songs, and roaring Harleys processed in his honour; when President Emmanuel Macron gave the oration, saying that Johnny's songs had been the soundtrack of their lives, and that he had become a "necessary presence", that presence was not quite as comfortingly evocative as Proust's *madeleine* (though the comparison was made, of course). It was something more shifting and slightly disturbing, like those eyes: like a sliver of light-blue glass. ■

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